

Monetary Integration in Europe:  
The current debate and some prescriptive policies

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## I. Introduction

In 1979, the European Community initiated the European Monetary System (EMS). It came as a response to the currency instability in Europe that followed the 1973 collapse of the Bretton-Woods system of fixed exchange rates. European leaders feared that the instability would endanger the process of further integration on the continent, and because the continent's economies were taking convergent economic paths (in the form of a customs union), it seemed natural to extend cooperation to include currencies. The founders of the EMS argued that exchange rate stability was essential to increase trade (through increased efficiency and certainty) while also stimulating greater monetary and fiscal policy coordination. In this paper will present some policy options designed to further monetary integration and assess the viability of such options. First, however, I will give a brief history of the EMS, the system that provides the framework for monetary integration.

There are two components of the EMS. One is the ECU, or European Currency Unit. It is a basket combining the 12 members' currencies<sup>1</sup>, and is the Community's budget and accounting unit. The other is the Exchange Rate Mechanism, or ERM, and will be the only one considered due to the context of this paper. The ERM is a commitment by participants to maintain their exchange rates within a narrow band, which is set around a central rate that participants determine for each currency (and is commonly set vis-a-vis the ECU). Since implementation, the band was +2.25% to -2.25% for a core group of members (namely Belgium, Denmark, France, Germany, Ireland and the Netherlands), while the new entrants to the system (Britain and Spain) had 6% fluctuation margins above and below the central rate. Italy used the broader band until 1990, when it switched to the narrower one.

Within these bands, member nations let their currencies float freely in response to market movements. However, when a currency reaches either limit (margin) of the band, the nation's Central Bank is required to intervene. If it approaches the lower band, i.e., is depreciating, the currency is propped up with central bank purchases of it. The Central

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<sup>1</sup> The Twelve Community members are: Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Spain, and the United Kingdom.

bank must sell its reserves and put downward pressure on its currency if it is appreciating and in danger of exceeding the upper limit.

This system worked well and stabilized exchange rate movements throughout the 1970's. Apart from a few minor adjustments in rates, and a major realignment between France and Germany in 1987, the system kept rates inside their bands. Indeed after 1987, no realignments occurred until the currency crises of 1992-3. It survived the EMS' tightening in the 1980's, the capital control liberalizations later on in the decade, and the signing of the Maastricht Treaty in 1991.

The Maastricht Treaty was ratified in December 1991. It proposed full monetary union and the adoption of a single currency among the EC nations by the end of the decade. To do so, it suggested "transfer(ing) a number of decision-making capacities to the Community level."<sup>2</sup>

In the years that followed Maastricht, however, events occurred that were inherently opposite to the goal of further monetary integration. In 1992 and 1993, EC monetary authorities found themselves unable to defend the EMS against speculative pressures. As a result the British pound and Italian lira dropped out of the system, and when massive French intervention to uphold the Franc suggested devaluation, the bands were widened to + or -15%. In section III, when policy options are addressed, the possible causes of this turmoil will be investigated. For now it has to be seen whether the path to Monetary Union remains a desirable goal for Europe.

## **II. The costs and benefits of Monetary Union**

### *The Costs*

Moves towards Monetary Union entail both costs and benefits. On the cost side, nations with high inflation lose seignorage as a way to finance government spending. Seignorage is the financing of Government spending through printing money, that causes interest rate differentials to emerge between that nation's economy relative to others.

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<sup>2</sup> Charles R. Bean, "Economic and Monetary Union in Europe," *Journal of Economic Perspectives*, 6/4/92:31

Because monetary union forces interest rates to converge (by forcing exchange rates to converge), seignorage is lost as a demand management option, and thus governments have to reduce deficits or pay for them with debt (bond issues). Naturally a disproportionate amount of adjustment in establishing union is borne by high inflation nations.

A second cost is the loss of another macroeconomic policy tool: the exchange rate. Fluctuation margins prevent devaluation as a method to stimulate demand and employment. Devaluation works in several ways: i) it reduces the wages of workers (by decreasing the purchasing power of the currency involved); ii) exports of the devaluing nation become relatively cheaper abroad -- increasing the quantity demanded.

Related to the above is a third cost -- the loss of monetary autonomy as sovereignty is forfeited to the EC. Member nations in a fixed exchange rate agreement (equivalent to a single currency or MU) have to subject their monetary policy to the Central bank of the anchor currency, in an attempt to converge interest and inflation rates (and thus currencies). The consequence of such a move is reliance by governments solely on fiscal policy as an economic adjustment tool. However, levels of government spending are very difficult to adjust (especially downwards) and implementation of such changes occurs with a significant lag time; by then the economy may be in a different stage of the business cycle. The resulting inability of member nations to address unemployment is compounded in a Phillips world, where policy-makers now have to take inflation as a given in the inflation-employment bundle.

In practice, the EMS has resulted in the German bundesbank taking a dominant role, as the DM became the anchor currency. This occurred because of the bank's credibility in maintaining low inflation (important to avoid speculation), and the EMS's goal towards that end.<sup>3</sup> Conforming to Bundesbank policy hurts growth because of the high interest rates required to achieve parity with the DM.

### *The Benefits*

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<sup>3</sup> There are no benefits, in the context of monetary union, to a low inflation nation joining a system of high inflation ones. The benefits of currency stability require trying to converge towards a low inflation currency (or target). High inflation is synonymous with currency instability.

Now having considered the negative effects of Monetary Union, I will summarize the benefits involved with the move to a common currency. The European Commission estimated these as follows:<sup>4</sup> i) direct gains from lower transactions costs in trade (about 0.4% of total European GNP); ii) indirect gains that include the reduction of information costs and price discrimination (0.3% of GNP); iii) net welfare gains from exchange rate stability. These include increased trade and investment that exploits comparative advantage and scale economies (therefore promoting gains from efficiency) and occur without the risk of exchange rate movements (0.7% of GNP); and iv) an integration of financial markets. Meanwhile, there is also a rise in regional specialization and decrease in inflation. All these factors serve to increase the rate of economic growth -- implementation of full monetary union could give an annual gain of 1.4-1.7% of GNP.

### *The empirical evidence*

The economic benefits seem quite small, and even in absolute terms can be overturned with moderately sized shocks. To gain a better understanding of the issue, however, we need to address net economic benefits.

No figures have been released on the negative effects of monetary union on European GNP. Therefore a direct comparison would be rather difficult, and would involve the relative costs and benefits of maintaining price stability as opposed to employment and output. Instead we can see whether items listed under costs (the costs have no measures) have explanatory significance in total costs.

Empirical findings have concentrated on the nature of shocks to try and determine the adjustment costs of MU. Economist Charles R. Bean asks two questions: whether nations are subject to shocks that necessitate a change in the terms of trade (in other words a revaluation of one of the currencies), and second, whether nominal rigidities are sufficient to make adjustments in the exchange rate the preferred method. To answer the first, he claims that the majority of trade in the Community is intra- industry rather than inter-industry -- so efficiencies from economies of scale outweigh those arising out of comparative advantage. In such a situation, demand shocks are unlikely to have a

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<sup>4</sup> European Commission, *European Economy*, 1990

differential effect on economies because one nation's goods are substitutes for another's, and thus the separate markets behave more like a single one: "... in 1987, between 57 percent and 83 percent of trade between EC countries was intra-industry rather than inter-industry... . Furthermore, they [the EC Commission] argue that the Single Market program can only intensify this process; thus shocks are increasingly unlikely to have a differential impact across members of the Community."<sup>5</sup> This rejects the argument for national monetary policies because changes in the terms of trade are unnecessary.

To answer Bean's second question, we must first look at the role of nominal rigidities in exchange rate adjustment to a demand shock. I will take an example of France and Germany. Consistent with historical events, let Germany experience an outward shift in demand, through, say a shift in the tastes of consumers towards its goods. In a two country world, that corresponds to a shift inwards of France's demand curve, and -- given no changes in spending habits in the short run -- Germany runs a current account surplus and France runs a deficit. In the long run, however, these changes tend back to the original equilibrium. This is because the shifts have resulted in rising prices for German goods and a subsequent gain French competitiveness. In the classical world, therefore, the adverse effects of a demand shock are short term declines in French output and inflation with the opposite occurring in Germany.

The outlook changes with price rigidity. If German monetary authorities want to keep inflation stable -- and thus implement a deflationary monetary policy with the shock, then these adverse effects can persist. Wage rigidities can further exacerbate the problem. If French workers refuse to accept wage decreases, then the product of a loss in output is unemployment. Factor mobility can facilitate adjustment if French workers can move to Germany (because it serves to increase relative French competitiveness, while also decreasing spending in line with output). In reality, however, cultural and language barriers result in labor market rigidities that combine with price and labor rigidity. The French thus experience long term unemployment and current account deficits (and subsequent budget deficits).

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<sup>5</sup> Charles R. Bean, "Economic and Monetary Union in Europe," in *Journal of Economic Perspectives*, vol. 4/92:35

The role of exchange rate policy becomes vital in this “sticky” situation. A revaluation of the DM upwards serves to make German goods more expensive and shift the demand curve to the left. The same effect can be achieved with a French devaluation. In either case, the consequences of a demand shock in the context of rigidities is avoided. With monetary union, however, rates are fixed and thus the option to change them are lost. The economic disequilibrium is therefore set to continue.

What were Bean’s findings? He claims that the exchange rate is not a good stabilization tool because: “Nominal exchange rate realignments are only helpful in facilitating adjustment when nominal wages and/or prices are rigid [but] ... the European Community is characterized by *real* rather than nominal wage rigidity.”<sup>6</sup> Therefore in Europe wages adjust rapidly (due to strong collective bargaining) to any exchange rate moves -- especially devaluation. So nominal wages vary and it is real wages that are sticky, and because in this environment exchange rate movements have no effect, the loss of policies governing them that comes with monetary union is an insignificant cost. This finding is mirrored in the studies on European monetary union by J. Whitt<sup>7</sup>, S. Englander and T.Egebo.<sup>8</sup>

Whitt addresses also the issue of mobile factors of production. It has already been established that labor immobility is another reason for maintaining an exchange rate policy in the context of rigidities. However, Whitt observes that the removal of capital controls in the 1980’s has made capital -- a substitute for labor -- perfectly mobile. Flows of capital can respond to demand shocks, offsetting output losses and removing interest rate differentials that in the long run restore equilibrium.

Whitt then adds that all the costs posed above are mistakenly attributed to actual monetary union. He argues this is not the case, that they are instead costs of the entry criteria. Once these criteria are satisfied, nations enjoy relatively freely the compounding and multiple benefits of union. These criteria, such as deflationary monetary policy and

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<sup>6</sup> Charles R. Bean, “Economic and Monetary Union in Europe,” in *Journal of Economic Perspectives*, vol. 4/92:37

<sup>7</sup> Joseph Whitt, “Monetary Union in Europe,” in *Economic Review*: Federal Reserve Bank of Atlanta, Jan/Feb 1994:11

<sup>8</sup> Steven A. Englander; and Thomas Egebo, “Adjustment under fixed exchange rates: application to the European Monetary Union,” in *OECD Economic Studies*, 20/93:7

reduced government debt, actually reduce the costs associated with a loss of seignorage while also being the best policies to ensure long term growth. Meanwhile, Whitt acknowledges the costs of subjecting monetary policy to the Bundesbank -- but argues that once the inflation criteria is reached and union accomplished, Bundesbank influence declines as members are able to credibly defend their currencies themselves. The criteria are also intrinsically good -- by denying nations with incompatible macro-policies membership, they help increase the success of, and thus potential benefits from, monetary union.

Most of the empirical evidence supports further monetary integration. Hallet and Vines, however, argue that the costs dominate.<sup>9</sup> First, they imply that the costs and benefits of adjustment to asymmetric shocks are about the same under EMU as without it. Although all countries share in the benefits, they also share in the costs. The EMU is simply a transfer from single nation effects to multiple nation effects. Second, they argue that stringent monetary policy is effective in reaching the official goals of price stability and maintaining output and that adding EMU achieves little. Third, even if EMU is implemented, performance is poor unless fiscal policy is subjected to support it. This further reduces the options nations can take to adjust to shocks. Hallet and Vines claim that: "The proper co-ordination of fiscal policy to monetary policy is essential to EMU. That is a matter of increasing the effectiveness of existing policy instruments, rather than of introducing a new policy regime [the EMU]."<sup>10</sup>

The main weakness of these arguments revolves around this issue of policy coordination. The EMS involved significant coordination and application of such instruments to maintain parities. However, that did not stop numerous realignments and the currency turmoil of 1992-3, even though until then the system was indeed on a path of convergence. A system of fixed exchange rates (the EMS) inherently runs the risk of changing parities because it consists of different currencies. Speculative pressures intensify the problem because they attack any country perceived to be in risk of

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<sup>9</sup> A.J. Hughes Hallet; and D. Vines, "On the Possible Costs of European Monetary Union," in *Manchester School of Economic and Social Sciences Journal*, March 1993:53

<sup>10</sup> A.J. Hughes Hallet; and D. Vines, "On the Possible Costs of European Monetary Union," in *Manchester School of Economic and Social Sciences Journal*, March 1993:53



devaluation; these are in addition to a base rate of realignments -- those arising from changes in underlying economic fundamentals of the nations involved. Monetary Union, which implements a single currency, avoids these problems. Once one currency is implemented, large costs are associated with returning to multiple exchange currencies. Thus the risk of realignments is small and dedication to MU is fostered. Therefore most economists still see value in achieving monetary union because that is the one way stability -- the main goal of monetary policy<sup>11</sup> -- is guaranteed. Others present prescriptions and policy options to attain that end, and by doing so imply that it is good.

The process of increasing monetary union, however, was interrupted by the widening of bands following the crisis of 1992-3, and the dropout of Sterling and Lira from the EMS. Given that further monetary integration is still a desirable goal -- even with this setback -- economists have forwarded several approaches using several policy options so that Europe can reach it. These approaches have in common many policy recommendations; their main differences lie in explaining the turmoil that occurred. The main purpose here is to present, in a coherent manner, a majority of the forces that came into play.

### **III. How to get Monetary Integration Back on Track: Several Approaches and Their Corresponding Policy Options**

#### *The Historical Approach*

One path to further monetary integration is to identify the causes of the 1992-3 currency turmoil and to avoid them in the future. Because the EMS had been working smoothly and encouraging monetary and economic convergence beforehand, the underlying trend towards union would have continued were it not for this major setback.

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<sup>11</sup> Other goals monetary policy can help achieve include: i) Output and employment targets. Monetary policy can be used as a demand management tool (by adjusting the relative prices of a nation's goods) to reach such targets; and ii) income targets (by adjusting the purchasing power of a nation's currency)

Economist Joseph Whitt<sup>12</sup> identified four major theories to explain the turmoil: i) the Lira and Sterling crisis; ii) incompatible policies in devaluing countries; iii) self fulfilling speculative attacks; and iv) fallout from German unification. I will now briefly describe them in order.

In June 1992, financial markets were stunned when Denmark rejected the Maastricht Treaty in a referendum. The Treaty had assumed that all countries would accept it, and now there existed the possibility that Maastricht (and thus monetary union) would not be implemented. With the loss of this goal, investors were uncertain whether countries would maintain their commitment in the EMS (the mechanism in which countries tried to meet monetary union criteria), and pulled out of currencies perceived to have a risk of devaluation.

One of these currencies was the Italian Lira. Italy had a long history of inflation, devaluation and budget deficits -- all above the levels agreed to in Maastricht. Now that the targets were gone, Italy was the most likely to devalue given the relatively large costs it had to bear to maintain parity.

The other was Sterling. With the UK coming out of a recession and the currency turmoil, investors had doubts whether she would raise interest rates to defend the pound. The situation worsened when polls showed that the French might reject monetary union, and with this the British opted for reflation and dropped their commitment to the EMS on September 16, 1992. Several days later, lira left the system.

The French referendum passed later that year, but with a margin so narrow that Maastricht implementation remained under question -- and French commitment became a new issue. During the course of 1993, the Bank of France had to use massive intervention to maintain the value of the Franc, especially with market fears that a new leadership would devalue after national elections that year. There were also signs that the French and other European economies were entering a recession that Germany was leaving. Given the situation, the Bundesbank refused to lower interest rates, concentrating instead on reducing domestic inflation. Therefore the other European

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<sup>12</sup> Joseph Whitt, "Monetary Union in Europe," in *Economic Review*.: Federal Reserve Bank of Atlanta, Jan/Feb 1994:11

nations were also unable to lower interest rates to stimulate their economies (or they would diverge from DM, the anchor currency) -- and combined with market expectations of a rise in DM, the pressure on the EMS bands became overwhelming. Over the weekend of July 31-August 1, 1993, as a result of the situation that arose with the "Lira and Sterling Crisis" the bands were widened to plus or minus 15%.

Another possible explanation for the EMS strain is that incompatible policies were being followed in the countries whose currencies depreciated during 1992-3. Because there was a time lag between the signing of the Maastricht Treaty and full monetary union, there would be a temptation for signatories to execute one last realignment within the EMS to gain a competitive advantage. The obvious candidates for what would amount to a devaluation would be those nations with high levels of debt and inflation. Essentially these nations were Britain and Italy, and markets would therefore sell their currencies in anticipation of a loss in value.

The third cause is possible self fulfilling speculative attacks. For a country struggling to maintain a tight monetary policy to qualify for MU, an attack on its currency would dismiss it. If it expects this attack to occur, it has no incentive to keep deflationary pressure on its economy and therefore loosens monetary policy and a devaluation occurs.

Whitt finishes with a set of causes for the crises arising from what he calls the "Fallout from German unification." The unification of West and East Germany had severe repercussions that served to place excessive strain on the EMS.

The logic is as follows. East Germany has an educated work force, working with outdated and insufficient capital equipment. In this context the returns to capital were high, and the resulting capital inflows increased the value of the DM. Furthermore, the West Germans are traditional exporters of capital goods, and could be expected to account for much of the increase in East Germany's capital stock. The corresponding demand for deutschmarks to pay for these goods put additional upward pressure on the currency. The way in which West Germany financed its investment in the East was also problematic. Rather than squeeze consumption, the Federal Republic borrowed from abroad, which led to a current account deficit. The consequential rise in government

spending was a form of fiscal ease that raised interest rates and also helped contribute to the DM's rise. This rise was intrinsically problematic for the EMS, because by virtue of the parities the other member nations saw their currencies appreciate as well. At a time when Europe was entering recession, and the Bundesbank kept interest rates high, this appreciation further retarded growth in addition to being inconsistent with underlying economic fundamentals. Quantitatively speaking, the EMS experienced a nasty shock. Between 1989 and 1992, Germany experienced a swing in her current account and deficit larger than the swing the US experienced in the 1980's -- in which the dollar climbed by 50%. Such movements were simply impossible to contain without EMS revaluation.

The policy recommendations depend on the relative significance of the causes and thus which explanations for the crisis have to be responded to. In evaluating some of the causes, a few can be dismissed.

"Incompatible policies in devaluing countries" is one such theory. Although Italy and Britain were devaluation candidates because of their historical inflation and debt levels, France and Denmark were in good macroeconomic shape -- they both had low inflation, positive current accounts, fiscal restraint and labor competitiveness when the crisis struck. This theory does not explain the speculative attacks that hit them.

Whitt also dismisses the argument of self-fulfilling speculative attacks. Many EMS members had difficulties complying with convergence and Bundesbank policy, but until 1992 the system had survived (a period which included two oil shocks). Furthermore, observing exchange rates after Italy and Britain left the EMS reveals that they dropped even further -- but now there was no bands to adhere to or MU to qualify for.

To conclude, Whitt claims that the EMS crisis of 1992-3 can be traced back to the following causes: i) German unification, ii) speculation, and iii) incompatible Lira and Sterling policies. Free movements of capital were problematic in this case (as opposed to the beneficial role they play in adjustment), because flows in a fixed exchange rate regime exacerbated the differentials in perceived currency valuations. Sterling should not have been admitted to the system (and the lira moved to the narrower margins) because the English (Italian) economies had not yet shown a commitment to deflation necessary

to avoid speculation. This speculation would inevitably arise as their ability to conform to Maastricht's goals and criteria came into question as soon as the moment they signed it.

Given these causes, Whitt proposes several policy solutions. First, he suggests the rapid implementation of a common currency. Even in a fixed rate mechanism, as long as several currencies were in circulation, the chance that revaluation of one relative to another is always a possibility. A common currency is needed to avoid another crisis like that of 1992-3 and to re-establish the quest for full monetary union. Second, he claims that the experience of the 80's lends proof to the fact exchange rate pegs work -- in the absence of large and unique asymmetric shocks such as German unification. Therefore he implies that the EMS should be revived, at least until a common currency is instituted. Until the latter goal is achieved, in the long run greater cooperation is required to encourage economic and inflation rate convergence, the driving forces behind currency convergence. This has second round benefits in reducing speculative pressures, the goal of his third policy recommendation: to facilitate adjustment. Plans need to be adopted to encourage wage flexibility in poorer regions so that asymmetric shocks do not result in persistent differentials in employment, output, and trade balances among nations participating in monetary union. Such persistent differentials only serve to create diverging forces between currencies.

### *The Reform approach*

This approach is significantly different from the historical one above. It assumes that the EMS was structured in a way which -- if it did not foster the currency turmoil -- resulted in the inability to handle it. Therefore, in order to return to a system of fixed exchange rates or establish monetary union, the EMS must be reformed so future crises are not detrimental to the progress of integration.

Niels Thygesen<sup>13</sup> explores this topic well. In his analysis, he creates a counterfactual world in which the alternatives to the EMS are assessed and evaluated.

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<sup>13</sup> Niels Thygesen, "Towards Monetary Union in Europe -- Reforms of the EMS in the perspective of Monetary Union," in *Journal of Common Market studies*, vol. 31/4 (12-93):447

First, he argues that an individual floating regime<sup>14</sup> and a target zone are undesirable: The former would “deny ... the reasons why the EMS was formed in 1978 and the lessons from its gradualist experience which has built up over nearly 15 years.”<sup>15</sup> In other words, all the political investment that had occurred to create it would be lost. Meanwhile a move to a target zone would not be as strict as EMU and thus the real benefits would not be realized. So as an alternative, he examines the creation of a modified EMS and presents policy options towards that end.

One possible modification of the EMS is to the margins. With the Lira-Sterling crisis and the realization that potential devaluation eliminates the honeymoon effect<sup>16</sup> however, some analysts have suggested a move to wider fluctuation margins as a means of preserving the EMS. Thygesen has a couple of comments: i) wide fluctuation margins inherently oppose the EMS’s goal of stable currencies; ii) wide margins did not protect the EMS in 1992 -- both Lira and Sterling fell below even the new band of fluctuation; and iii) the EMS survived historically with rather narrow margins, and so can be revived with the same bands. Meanwhile, the move to narrower margins entails a trade-off between autonomy and monetary submission to a supranational institution, and requires central rate credibility. This is exactly the medicine Thygesen prescribes, claiming that exchange rates have overadjusted to the crisis and are now more defensible (witness the free float of the Franc and Kroner back into the old narrow margins since 1993). Such a move will also exploit the extremely significant credibility effects and therefore stave off speculation through the assurance that the period of devaluations has ended. However,

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<sup>14</sup> A floating regime is in essence equivalent in operation to the way an exchange rate policy would be used as described in the costs of monetary union section earlier.

<sup>15</sup> Niels Thygesen, “Towards Monetary Union in Europe -- Reforms of the EMS in the perspective of Monetary Union,” in *Journal of Common Market studies*, vol. 31/4 (12-93):449

<sup>16</sup> The honeymoon effect occurs for a currency as it reaches the margins of fluctuation. Take a currency freely depreciating inside its band. As it nears the lower limit, expectations that government will intervene to support the currency -- and that the value will therefore stabilize -- result in less investors selling. This effect grows stronger and stronger until the path of depreciation reaches a tangency with the lower limit (i.e., the currency is no longer depreciating) where government intervention and market forces combine to prevent further declines. The same occurs for an appreciating currency approaching the top of its band, and in this way the honeymoon effect promotes exchange rate stability.

If the market expects a devaluation (i.e., no intervention to support the currency as it depreciates past the old lower limit), then the honeymoon effect no longer applies.

such a move can only be successful if the central rate does not reflect any lack of competitiveness (otherwise long run realignments would be necessary).

Another possible modification to the EMS is through the mechanisms that defend it. As defined by the Basle-Nyborg agreement of 1987, these mechanisms are applied in three strengthening steps: i) allow free movement inside the bands as a response to market forces; ii) use central bank intervention to stop strong fluctuations; and iii) if the pressure persists, move short-term interest rate differentials to try and encourage convergence. If these three measures fail, a last resort would be to realign the deviating currency to a maximum difference of 4.5% from the old rate. This in itself was designed defensively, as the small adjustment would encourage the continuity of exchange rates and also avoid future speculative destabilization (because no overadjustment of rates occurs).

The failure of the above Basle-Nyborg mechanism in 1992 was due to three reasons. First, no meetings were held to discuss devaluations. Normally the peer pressure present at such meetings persuades nations pondering it to reconsider. Second, the EMS was defending rates the market perceived to be misaligned. Third, it gave in to speculation in some currencies whose movements did not correspond with underlying economic fundamentals. Implications for the future are simple -- just make sure they don't happen again. Otherwise, several proposals should be considered to facilitate EMS defenses, given the above mistakes do not occur.

As above, one of these proposals is narrowing the bands. Besides producing credibility effects, narrowing the bands requires the more rapid use of other measures which address the forces for divergence (simple bands do not).

Two other proposals modify the role of national central banks. Because the next step of a failed defense is realignment, the banks need incentives to begin this defense (especially in the form of changing interest rates) earlier, if at all. The Bofinger scheme is one such proposal, that I will once again illustrate with the case of depreciation. Creditor banks (the central banks of nations other than the one being defended) acquire the currency in intervention, a loan which the debtor bank must pay back within a certain time period. To do this, the debtor bank either generates a private inflow of funds or

issues debt. Both these moves increase interest rates and so hinder further downward movements in its currency. The other proposal is the Bishop scheme. In this case, when independent creditor banks accumulate more than 15% of a nation's M2<sup>17</sup> (an accumulation that prevents devaluation), they then have the authority to run monetary policy in the currencies' mother nation. Theoretically to avoid the loss in autonomy and harsh adjustment policies, which creditor banks implement to get their money back, the nation in question has the incentive to impose monetary austerity before the 15% limit is reached.

The way interventions in the EMS are funded are also suitable for reform, or, more appropriately, regulation. Central bank purchases to support the value of its nation's currency can be financed in two ways: i) through the issuing of debt (which through higher interest rates aids the CB's mission by propping up the currency); or ii) sterilization (printing money, which has the opposite effect). Of these two methods, sterilization is of particular importance. Recall the external shock experienced by France in the example earlier -- without changes in spending, the French trade deficit is matched by a French budget deficit. Both deficits involve government borrowing to obtain the needed Francs (as in i) above). However, the French government can sterilize the debt -- in other words, print money rather than borrow it. Such an action would lower interest rates in France. Therefore, in deficit countries its use should be limited (so as to raise interest rates), and in surplus countries, encouraged. In itself, such an application will create converging tendencies for interest rates and thus exchange rates -- and therefore reduce the need for interventions and further the goal of currency stability.

The last element of reform examined by Thygesen is the role of realignments, the defense of last resort. He proposes the adoption a couple of guidelines for such a process: First, they must be large enough to offset, in the near future, the expectation of another. This reduces the risk of speculation, especially if the rate being defended is misaligned. Second, they must be small if intervention failed to stop unwarranted (by economic

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<sup>17</sup> M2 is a monetary aggregate consisting of currency, demand deposits, and checkable deposits (M1); plus savings accounts, small denomination time deposits (less than \$100k), money market deposits and non-institutional holdings of mutual funds.



fundamentals) speculation. This helps to encourage stability through small changes in the central rate that do not create jumps in the market rate.

All of Thygesen's reforms help to make the EMS more sustainable in the face of external shocks. They also help to facilitate its role in keeping exchange rates stable, that is the whole idea behind monetary union. However, these reforms need a supportive environment if they are to work efficiently. One element in this environment is a compatible adjustment policy, that works well given the fixed exchange rates. It is to this subject that I now turn.

### *The Adjustment Approach*

Economic shocks to economies are often the target of corrective policy to mitigate mainly output, employment and income effects. It has already been determined<sup>18</sup> that adjustment under fixed exchange rates entails some costs, namely the loss of monetary policy as one of the adjustment tools. It has also been determined, however, that the costs involved may not be significant and that the other policy tool, fiscal policy, is generally ineffective anyway. Therefore, the search is underway for an adjustment tool that is capable of combating the effects of shocks. This tool can then work towards monetary union by helping to offset shocks that have divergent effects on exchange rates. Before starting the analysis, however, I must note that the only important type of shock is that which is asymmetric in nature, or one that affects different nations differently. If all shocks were symmetric (or affecting all nations equally), then the type of exchange rate regime one was a member of would be of no consequence. This is because relative prices and costs remain the same through the shock, and hence there is no reason to fix them to each other. Nevertheless, some degree of symmetry is required, if monetary union is to be successful.

Englander and Egebo<sup>19</sup> argue that given different resource and infrastructure endowments, the shocks are generally asymmetric. Therefore they claim that price and wage stickiness, as found in Europe, result in changes in capacity utilization and

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<sup>18</sup> See II. The Costs and Benefits of Monetary Union, earlier in the paper.

<sup>19</sup> Steven A. Englander and Thomas Egebo, "Adjustment Under Fixed Exchange Rates: An Application to the European Union," in *OECD Economic Studies*, 20/93:7

employment with a shock. Meanwhile, increasing stickiness increases the magnitude of these adjustments. The two economists then try to find whether adjustment can occur in such an environment without a strain on economic activity and nominal exchange rates.

Their answer is yes. Because rigidities result in shocks having effects that are regional in nature, they claim that the best way to handle this is through a flexible and large community structural aid program that would transfer income from richer to poorer regions. This community wide program should also be supplemented with local programs on the state and national level. These programs serve to expand the flexibility of the resulting adjustment mechanism.

In arriving at their conclusion, Englander and Egebo address some other policy alternatives for adjustment. Why they were not chosen can shed some light on their value as policy tools for Europe, in addition to providing an even better opportunity to assess the costs and benefits of monetary union. I will address one of them below.

A major adjustment tool is fiscal policy. As described earlier, fiscal policy is problematic because of the difficulties of timing and adjusting spending. To add to this, it is not a good substitute for monetary policy, as it does not help when it is the changes in relative prices are the concern. Another addition to the list of diminishing fiscal policy importance is that of spillovers. Englander and Egebo find that in one year, 20-70% of a demand shock in one nation is buffered by imports from another. Given this fact, using fiscal policy to offset unemployment and output effects results in only a part of the benefit going to the country that implemented the stimulus. However, all of the cost is borne by this nation in the form of higher taxes or debt. The nature of spillovers is likely to provide a strong disincentive for governments to spend their way out of recessions and thus the use of fiscal policy begins to display some public goods characteristics. Regional structural aid sidesteps the Spillover effect because 100% of the income transfer goes to the citizens of the region adversely affected by the shock.

Englander and Egebo conclude by presenting some policy implications of their findings. In the absence of effective fiscal policy and monetary policy for effective adjustment purposes, they argue that wage flexibility is needed as a tool to change relative prices and decrease the unemployment resulting from negative shocks.

Fiscal policy could, however, be used to get back on the path to monetary union. As long as the contractionary effects are not unacceptable, government spending should be curtailed so as to reduce inflation in a convergent manner. This should be easier now that spillover effects make the domestic multiplier low and thus enable the government to move away from demand management as a policy. The low inflation and deficits also helps a nation's comparative advantage in a fixed exchange rate regime, and thus avoid the capital outflows that cause long term stagnation and represent diverging interest rates. The subjugation of fiscal policy targets to monetary policy goals allows the full benefits of monetary union to be realized by creating a relatively stable regime. Meanwhile increased labor market flexibility enables the system to make adjustments to external shocks less painful and hazardous to its existence. This appears to be a good regime with which to prepare Europe for the implementation of full monetary union with a single currency.

#### **IV. Concluding Comments**

This paper was intended to summarize the current debate over monetary union in Europe and the policy options for furthering it. A mainly descriptive undertaking, it would then finish with what I think are good policies for further monetary integration (which still has to come). I attempted to do this description in three sections. The first outlined the history of European monetary integration, beginning with the formation of the EMS and following through to the Maastricht Treaty in which the leaders of Europe agreed to full monetary union. The period ends in the currency turmoil of 1992-3 after which the EMS was basically suspended. The second addresses certain reforms the EMS could undertake to further EMU, and the third deals with the issue of adjustment, which becomes somewhat tricky under full EMU. All these approaches, however, were in the context of the 1992-1993 currency turmoil and are in many ways responses to it.

With the currency turmoil the debate over European monetary integration resurfaced. The question arose to whether the goal of monetary union was worthwhile. This is the issue studied in part two, where some basic costs and benefits of

monetary integration are described. Almost all the articles studied agreed on the dominance of benefits over costs, although the degree is not certain. In any case, the absolute amount of total benefits is rather small. Furthermore, in assessing the costs, I believe that the opportunity costs of set-up time of the various programs in the path towards monetary union should be added to the costs listed above. Much political energy was devoted to the process, and one needs a full assessment of costs before a final evaluation on the net benefits can be made. An additional cost borne by members that can also offset the benefits, is the process of Monetary Union itself. While completion of the EMU "should provide a significant boost to output and growth over the medium term, the contractionary fiscal bias built into the Maastricht rules is likely to work in the other direction."<sup>20</sup>

One useful indicator of how monetary union would work in Europe would be to examine the situation in the US, where a Federal government applies one monetary policy for the nation. The individual states, aside from some tied transfers and general block grants from the Federal government, are then free to use their own fiscal policy (state and local governments accounted for about 63% of all government spending in 1980).

Some of the issues in a comparison between the United States and Europe have been examined already. Critics of European Union such as Barry Eichengreen see low labor market mobility there as a reason to maintain exchange rates as a method for adjustment.<sup>21</sup> He also calculates the real exchange rate variability of regions in the US, and finds that variability is substantially smaller than that in Europe. He therefore concludes that Europe is not a good candidate for monetary union. However, as we have seen, capital market flexibility can be substituted for the labor market rigidity. Economists Kenneth A. Froot and Kenneth Rogoff argue this can be the case in Europe -- especially now that capital controls have been eliminated.<sup>22</sup> The diverse location of

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<sup>20</sup> Charles R. Bean, "Economic and Monetary Union in Europe," in *Journal of Economic Perspectives*, vol 6, no. 4/92:51

<sup>21</sup> Barry Eichengreen, "Is Europe an Optimum Currency Area?" University of California at Berkeley Working Paper No. 90-151, October 1990

<sup>22</sup> Kenneth A. Froot; and Kenneth Rogoff, "The EMS, EMU, and the Transition to a Common Currency," National Bureau of Economic Research Working Paper No. 3684, April 1991

industries (for example, auto makers in Germany, France, UK, Italy and Sweden) facilitates this capital flow as setup costs are avoided. In the US, however, many regions are highly specialized (Detroit), so this evidence actually supports monetary union in Europe over the US. Adding to this, we also find that the US is in many ways regionally different, and thus the labor market may also face the same rigidities as faced by the market in Europe (although not to the same degree). Meanwhile, on variability, Stephen S. Poloz finds that Canadian regional variability is greater than that for Europe, yet Canadians have only one currency. Therefore Europeans could have one too.<sup>23</sup> Finally, as we have seen in Bean's analysis in section III, maintaining exchange rate policy as an adjustment tool is questionable because of real exchange rate rigidities in Europe.

In the US-Europe monetary comparison, we can also question the role of shocks to each system. Whitt (in a different paper than the one examined above) cautions that monetary union in Europe may be problematic, due to the common occurrence of asymmetric demand shocks arising from the presence of Germany.<sup>24</sup> In addition, economists X.S. Martin and J. Sachs claim that the Federal Government also plays a substantial role because the tax system and benefit programs help to cushion adjustment.<sup>25</sup> They claim that without a similar system in Europe, regions facing negative external shocks would experience severe and prolonged depressions.

Again, I believe these arguments do not dismiss the underlying value of monetary union. As previously noted, without asymmetric shocks, one currency would be unnecessary.<sup>26</sup> Furthermore, there is little evidence that the existing fiscal transfer mechanism has solved regional disparities (e.g., southern Italy or the coal mining areas of England). The shocks themselves may be relatively insignificant. Asymmetric shocks will simply result in differences in real wages, a fact that exists now within the

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<sup>23</sup> Stephen S. Poloz, "Real Exchange Rate Adjustment between Regions in a Common Currency Area," Mimeo, Bank of Canada, 1990

<sup>24</sup> Joseph A. Whitt, "European Monetary Union: Evidence from Structural VAR's," Mimeo, Federal Reserve Bank of Atlanta, May 1993

<sup>25</sup> Xavier Sala-i-Martin; and Jeffrey Sachs, "Fiscal Federalism and Optimum Currency Areas: Evidence for Europe from the United States," Yale University, Economic Growth Center Discussion Paper No. 638, August 1991

<sup>26</sup> In our France and Germany example, recall that it is an asymmetric shock -- a shift in tastes away from French goods -- that created the disparities between the two nations. It was these disparities that then led to diverging exchange rates in a floating system or a devaluation in a fixed one.

Community -- witness Germany and Spain -- yet community integrity has not been compromised.

A final issue regards the role of fiscal policy. Although the previous discussion in section II has brought its importance into question, it may be more significant for adjustment purposes in Europe than it is for the US. The large size of the Federal government in a large way constrains the spending options for the States; Europe would have more freedom to implement independent fiscal policies. To the extent that they have any adjustment role, this ability can only be seen as positive. Furthermore, given the relative immobility of labor, European nations could use this policy without the fear of sparking massive population movements between the affected areas.

The bottom line of the US-European monetary comparison is that it can be done. The US is experiencing the benefits, and there is no question of dismantling the system in favor of 50 independent currencies, whether pegged or floating. Europe can look to the US as a model, and determine which characteristics to adopt and which to discourage.

Assuming that benefits do outweigh the costs, however, I examined what Europe could do to further monetary integration. In the third section of this paper, several contemporary economic studies suggested some policy paths all aiming towards monetary union as a goal. However, each path had a specific objective within this grander picture. Some aimed to restore EMS, and some aimed to smoothen its operation once that was done. Others sought to create an environment in which final and full monetary integration would result, while still others planned to make the EMS a criteria and admissions program for final integration. In the section that follows, I intend to evaluate the relative merits of each approach and the aspects I believe to be of use in a monetary arrangement. (Keep in mind the approaches were not intended to be substitutes).

The historical approach is valuable for several purposes. It sheds some light on the power of speculative attacks on nations whose commitment seemed weak or unsustainable. Given the strength of these attacks -- which eventually forced Lira and Sterling out of the EMS -- a lesson for further European integration is perhaps the tighter admissions criteria nations must meet before being allowed to join in on any fixed

exchange rate agreement. Otherwise nations that markets perceive as having a lot of adjustment to do will destabilize the entire arrangement, if their entry is allowed too hastily and without their economies achieving a fundamental trend towards convergence with those in the agreement.

The second item the historical approach reveals is the role of huge asymmetric shocks -- in this case, the sudden change in the economic policy and standing of Germany upon unification. The very nature of this shock suggests that it will not happen again, and because the approach ascribes most of the shock to unification, the old system should immediately re-implemented. Related to this is the role of the anchor currency, or leader, in a system of fixed exchange rates (which is what the EMS practically was). In the face of extreme pressure on the fluctuation bands by a majority of members and a divergence of economic fundamentals, the leading currency ( DM in the case above) should devalue. The corresponding lowering of interest rates would have enabled all the other economies to reflate as well, and thus offset the effects of depression. The price, namely a higher inflation-unemployment combination which would have made Germany worse off, was one she was unwilling to pay to maintain the EMS. The extraordinary event of unification led to a rising DM which as the anchor currency dragged upwards all the others in an inconsistent manner -- their economies were in recession. Such events should call for realignment to preserve the exchange rate arrangement.

This is by no means an argument for wider bands, more realignments and frequent policy changes by the leading currency. The implementation of all these would simply render useless the idea of monetary union -- that of achieving convergence towards a single currency while also exploiting the economic benefits of stable exchange rates as one does so. It is simply one for correlating policy with underlying economic fundamentals.

Thygesen's reform approach presents, at the minimum, an excellent set of guidelines by which a future fixed exchange rate regime or revived EMS should be run by. Some of his proposals are very innovative, addressing to a large extent the strong speculative forces and thus ways to increase credibility, while also setting up logical and incentive based reactions to shocks. Such a system is the best way to foster participation

in an exchange rate agreement and create voluntary -- not compulsory, compliance to the rules. It seems that markets would be much more confident in such an arrangement.

One issue, however, is implementation. Thygesen's proposals for narrower bands may frustrate potential members who view their adjustment costs for membership as excessive. We therefore again run into the criteria issue posed earlier. One possible solution is to have two phases: one is the permanent and final phase, with stringent criteria and membership only to economies that are performing at a similar level; and an initial phase, a quasi-fixed exchange rate system (perhaps a target zone?) where most of the adjustment occurs in an easier environment that allows exposure to what membership in the final phase entails but also gives a taste of the potential benefits. Of course the goal would be to progress from the initial phase to the final one within a certain time period.

The second issue arising from Thygesen's ideas is political acceptance. Surely the incentive system in the proposals on central bank interventions would be politically unacceptable, even if they are sufficient to mandate action in the right direction. However, this said, his schemes for currency defense should definitely be implemented into fixed exchange rate agreements, as should the outline forwarded by the Basle Nyborg agreement.

The adjustment approach is most difficult to assess, partly because of conflicting empirical evidence. Most of the studies I encountered suggested the importance of an active fiscal policy -- used in a way consistent with the monetary arrangements -- to adjust for shocks given the loss of an independent monetary policy. Englander and Egebo, however, suggest that fiscal policy has only a limited and secondary role to play in ensuring that the monetary goals are met -- and little use, if any, as an adjustment tool.

Their argument has power to it. Indeed, the complications of fine-tuning fiscal policy and the timing of application make using it very difficult, if not useless. Countries with the most adjustments to make, meanwhile, have to essentially abandon the policy because they have the highest debt and inflation levels -- which must be curtailed when they want to join in on monetary union. The role of fiscal policy under fixed rates seems most fitting as a balancing tool, to adjust Government receipts and expenditures so as to



create a pro-monetary union environment that includes stable interest rates and low inflation.

The weakness in their argument arises from their policy recommendation. It seems unlikely to me that labor markets can be made more flexible, given the European history of real wage rigidities arising out of labor bargaining power. Their structural adjustment program, while good at avoiding spillover effects, seems weak as an employment-output maintenance tool. The present program would have to be expanded vastly, and for any significant effect, the investments have to be a substantial proportion of the region's GNP. Witness American long term structural investment in the South that has still not enabled the region to achieve parity. Structural programs seem to be even more problematic than fiscal management, as there are huge time lags involved. It would definitely be a long term plan, but then what would facilitate short term adjustment, given the real rigidities of the labor market? Perhaps Europe will have to rely on the capital market, which is now free of controls, for a while.

As a conclusion, therefore, I cannot include the definite final form that European monetary integration will take, or even the form of the path it is to take. I can only suggest which prescriptive policies will be the most productive in creating a monetary framework most compatible with economic growth amongst Community nations; hopefully I have done this above. What I can say, however, is that monetary integration should definitely intensify over its current level. This should be done even in the aftermath of the currency turmoil of 1992-1993.

Many observers have noted that with the suspension of the EMS, nations that were pushed out of the ERM have been doing remarkably well. In trade weighted terms, since September 1992 the Lira has tumbled by 34%, and sterling by 16%. Meanwhile, both economies have experienced a growth in exports twice as high as that for other European nations -- over 10% per annum. These observers therefore claim that devaluation is still an effective tool, judging by these results (dropping out of the ERM was effectively a devaluation).

In the long run, however, the situation is remarkably different. As reported in the March 25, 1995 issue of *The Economist*, British history proves that subsequent inflation

leaves competitiveness back where it started. The situation in 1992 was different because the European economies had just emerged from a deep recession, and therefore there was plenty of spare capacity with which to absorb inflationary tendencies. Furthermore consumer demand was so weak that producers absorbed rising import costs in their profit margins, and monetary policy in the previous years had been so tight that they produced an underlying deflationary trend. Current rises in producer prices are giving warning signals that the inflationary tendencies will re-emerge. Therefore, I think the economists studied in this paper were correct to regard the events of 1992 as a lesson in formulating EMU, and not as a sign to stop it. So we can again dismiss keeping exchange rate policy as a reason for halting EMU, for "if devaluation were such a magic cure, Britain and Italy would now be the world's most successful economies."<sup>27</sup>

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<sup>27</sup> "A much devalued idea," *The Economist*, 3-25/95:86

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