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The Euro: Ready or Not? A Retrospective on European Unification: Some Lessons for 1999

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**The Euro: Ready or Not?
A Retrospective on European
Unification: Some Lessons for 1999**

by Joseph Santos¹

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Introduction

On January 1, 1999, fifteen independent nation-states of Europe are set to relinquish their national currencies in favor of a single European monetary unit, called the euro. While the origins of the European Union (EU) (formerly referred to as the European Community) date back to the Marshall Plan, the inception of the euro occurred in February of 1992 with the passage of the Treaty on European Union, *or Maastricht Treaty*.¹ Though the prospect of a European Monetary Union (EMU) has attracted many observers from the economics, finance, and business communities, the history of the EU, and its current plan to adopt a single currency, is well worth the attention of everyone.

A single European currency will make the EU - which overpowers the US in both production and population - more competitive by: reducing the transactions costs of exchanging currencies, allocating resources more efficiently through the elimination of exchange rate risk and maintaining a more stable price level (Eichengreen 1992: 4). Hence, the EU threatens the US's dominance as a world economic power.

Nonetheless, with less than one year to go before the scheduled start date of the European Monetary Union, questions remain on whether or not the 15 member economies are sufficiently similar to warrant a single currency between them. Indeed, an examination of data on each of the 15 member states suggests that the transition to a single currency will be difficult for some and nearly impossible for others. This finding is particularly disconcerting in light of the potential destabilizing effects that failure of the EMU can have on European as well as other economies. Thus, the nation-states of Europe must proceed with caution.

The EMU and the US: The Costs of Ignorance

To economists, the prospect of a European Monetary Union is nothing short of remarkable. The notion that fifteen independent nation-states of Europe are about to (willingly!) dissolve their national currencies and adopt a single monetary unit of exchange, is difficult for most of us to fathom. While

economists are obsessing over such matters for obvious reasons, why anyone else, particularly Americans, should care about the EMU is not immediately clear. Nonetheless, the answer is simple.

If a united Europe is to pose a threat to the US, it will come in the form of economic competition. While the individual nations of Europe are not very large relative to the United States - Germany is the largest at just under 30% of US GDP - the Union as a whole out-produces the US in any given year. As seen from table 1, as of 1992, the output of the European Union had grown to 109% of the US economy (column (2)). In terms of population, the EU is nearly one and a half times larger than the US, with 371 million inhabitants (column (3)). In addition, the European economy is highly concentrated, with four nations - Germany, France, Italy and the United Kingdom - comprising 73% of total production within the Union (column (1)). Indeed, even if the EMU were to be comprised of only Germany, France and Italy upon its inception, as some observers predict will be the case, the value of its output will be equivalent to 65% of that of the US.

But, the European Union is *already* large, so why the fuss about the adoption of a single currency in 1999? While it is true that the European Union is not going to expand suddenly on January 1, it has the potential to become increasingly more competitive because of the benefits associated with monetary union.

Indeed, the adoption of a single medium of exchange (currency) enhances competitiveness in three ways. First, transactions costs are reduced by eliminating national currencies. In particular, since exchange rates between the European currencies no longer exist, the costs associated with the changing of monies disappears. In addition to freeing tourists of the commission costs associated with currency exchanges, European corporations and investors experience reductions in the costs of doing business in other (European) countries. Second, resources are allocated more efficiently through the elimination of exchange rate risk. Exchange rate uncertainties can cause a firm to limit its investments to domestic resources, even if foreign resources are more efficient, for fear that foreign currency devaluations will erode its profits. Hence, in the absence of exchange rates, European resources will be used more efficiently.

Third, governments participating in a monetary union are more likely to commit to a policy of price stability (Eichengreen 1992: 4). Hence, the damaging effects of inflation and disinflation are eliminated as well.

Consequently, the EU's adoption of a single currency will increase the economic efficiency of the Union, thus, transforming it into a formidable economic foe. Even if these efficiency gains are not enough to threaten the dominance of the US in the world economy, the EU and the proposed EMU are clearly issues which merit our attention (Eichengreen 1992: 56).

The Path to Monetary Union: The Evolution of the European Union

The origins of the European Union date back to the Marshall Plan - a US initiative consisting of approximately \$13 billion of financial assistance (grants and loans) designed to revive war-torn Western Europe (Bordo and Eichengreen 1993: 41). To oversee the plan's implementation, the Organization for European and Economic Cooperation (OEEC) was established in 1948. The OEEC was the first postwar cooperative agreement between the nation-states of Europe and the first step in a series of initiatives designed to unify the continent.

Although contemporary debates on European unification typically focus on the *economic* costs or benefits of this plan, issues pertaining to international security and stability took precedence during its formation. Post war hostilities between Germany and France prompted policy makers to develop cooperative agreements between the European nation-states that effectively linked the economic welfare of the Union to each members' domestic policies (Baun 1996: 11). This economic interdependency among the nation-states insured political stability.

Indeed, the original 'blue print' for a European Union - the 1951 Treaty of Paris that established a European Coal and Steel Community (ECSC) among six Western European nations (Belgium, Luxembourg, France, Italy, The Netherlands, and West Germany) - was designed to mitigate hostilities

between its members. The Treaty did this by calling for each nation to relinquish control of its coal and steel industries to a supranational authority (Baun 1996: 12). Since these industries were considered key to the execution of a war, subjecting them to the will of a supranational organization negated the possibility of belligerent activity within the region. In addition, by fostering cooperation among the six countries, the industrial might of Western Europe was strengthened (to protect against the impending Soviet threat) without tipping the balance of power in favor of any particular member state.

In the latter half of the 1950's the move toward expanded economic cooperation among the six nation-states gained greater momentum. In particular, the Treaty of Rome was signed in 1957, establishing the European Economic Community (EEC), a common market which allowed member states to: trade goods without tariffs or quotas, abolish restrictions on the provision of financial and professional services between nations, allow for the free flow of resources (such as labor, capital and entrepreneurship) across national boundaries, and ban discrimination based on nationality (Swann 1992: 7). Within two decades, the six members of the European Economic Community expanded to twelve with the additions of Denmark, the Irish Republic and the United Kingdom in 1973, Greece in 1981, and Spain and Portugal in 1986 (Swann 1992: 10). Currently, membership stands at 15 with the admittance of Austria, Finland and Sweden in 1995.

Despite the rather comprehensive provisions in the Treaty of Rome, the agreement did not envisage monetary unification (a common currency) for the European Community; this issue was not addressed until late 1989. Hence, while the EEC removed restrictions on capital mobility within the Community, investors continued to face the possibility of exchange rate volatility. The fear of a currency devaluation curbed investors' willingness to purchase foreign capital. Consequently, members agreed to an Exchange Rate Mechanism (ERM) whereby each nation 'pegged' its exchange rate within a specified range *or band* of every other member's currency.² Instituted in March of 1979, this agreement marked the inauguration of the European Monetary System (EMS), a first step in the process of currency unification (Tew 1992: 197).

While the intent of the ERM was to achieve exchange rate stability, the system suffered two serious breakdowns in the summers of 1992 and 1993. In essence, heavy speculation on primarily the French franc, the Italian lira and the British pound made it impossible for members to keep their exchange rates within the bands specified by the ERM (Corden 1994: 113). In both cases, members either devalued their currencies, lobbied to have the EMS widen the bands, or withdrew from the mechanism altogether.³

The Pitfalls of Monetary Union: The Economics of a Fixed Exchange Rate System

The ERM experiment revealed a critical flaw inherent in a pegged or fixed exchange rate system. As a single European currency represents the purest, and most austere, form of a fixed exchange rate system, it is crucial that EU policy makers inoculate the EMU from this flaw. In particular, a fixed exchange rate regime fetters each nation's monetary policy to the objective of maintaining a specified exchange value for its currency, making it difficult to implement policy that is solely in the interest of the domestic economy. For example, since policy makers are unable to expand the economy and support the foreign exchange value of the nation's currency simultaneously, adherence to an exchange rate regime requires that the former be sacrificed in favor of the latter. Of course, eventually domestic (political) pressures take precedence, forcing policy makers to abandon their adherence to these seemingly arbitrary international agreements. A nation signals its disassociation with the exchange rate regime by ceasing to support the value of its currency. Only then is the nation able to pursue monetary and fiscal policies in the interest of its own economy.

So, while exchange rate risk is completely removed in the presence of a single monetary unit, and hence capital mobility is enhanced, discretionary monetary policy within each nation becomes impossible. Moreover, it is difficult for any member to simply drop out of such an agreement since, presumably, there is no longer a home currency for which to revert. Hence, if a group of nations is to adopt a single monetary

unit, measures must be taken to ensure that pressures capable of disrupting the system never surface. The 1992 Treaty on European Union (the Maastricht Treaty) was designed with such measures in mind.

The Conception of the Euro: The Delors Report and the Economics of Convergence

In June of 1988 the European Council established a committee, headed by the President of the EU commission, Jacques Delors, to investigate the possibility of replacing the, then, twelve currencies of the European Community with a single European Monetary Unit (EMU) (Tew 1994: 202)⁴. The resulting Delors Report recommended that the EC adopt such a currency in three stages - the plan was essentially embraced in full by the Maastricht Treaty in 1992 (Corden 1994: 152).

Starting in July of 1990, all members of the Union would begin to work toward economic ‘convergence.’ Next, monetary policy would be transferred from each nation’s central bank to that of a European Central Bank (ECB). Then, exchange rates would be ‘irrevocably’ locked between member nations just prior to the phasing in of a single currency. In addition, budgetary constraints would be imposed on all members, limiting the size of each nation’s deficit and debt (Tew 1994: 203).

Achieving economic convergence is by far the most crucial step in the process toward monetary unification. Since a common currency will require a common monetary policy, each nation will be forced to relinquish control of its monetary authority (central bank), and monetary policy will fall into the hands of the proposed European Central Bank (ECB); the ECB will be immune from political pressures, committed solely to the objective of maintaining price stability in the Union (Corden 1994: 152). With the ECB focused on managing the performance of the entire EU economy, it will be unable to pursue discretionary policies specific to a particular nation’s economic circumstances. That is, the adoption of a single currency will effectively tie the hands of each nation’s policy makers, rendering their economies defenseless to shocks. So, in order for the ECB’s monetary policy to satisfy every member of the Union, all economies within the Union must ‘converge’ so that each expands and contracts simultaneously, and at similar speeds.

For example, if Spain is growing more slowly than Finland, a tight monetary policy will be appropriate for the Finnish economy, but harsh on the Spanish economy. Likewise, a loose monetary policy that seeks to encourage growth in Portugal, can cause inflation in Germany. In summary, since the ECB will be unable to direct its monetary policy to one region of the EU without affecting the economies of the other regions, the economies must be synchronized so that region-specific problems simply do not arise. For this reason, the Maastricht Treaty requires that members' economies sufficiently 'converge' prior to their joining the Union.

The Maastricht Treaty: The Rules of the Game

The implementation of the Delors Report came to fruition in February of 1992 with the passage of the Treaty on European Union, *or Maastricht Treaty* (Holden 1992: 9). While this agreement contains many provisions, including preserving fundamental freedoms, promoting democracy and protecting the environment, the key economic initiative is "to achieve economic convergence and union and a single stable currency;" this single currency has come to be known as the euro, set to take effect on January 1 of 1999 (Holden 1992: 12).

The agreement specifies the following set of five criteria to which member states' economies must adhere in order to gain acceptance into the EMU by the 1999 start date: 1. price stability, defined as a rate of inflation within 1.5 percentage points of the three best performing EU countries; 2. low long term interest rates, defined as within two percentage points of the three lowest scoring EU countries; 3. exchange rate stability, meaning that for at least two years the country concerned has kept with the normal fluctuation margins of Europe's exchange rate mechanism; 4. a sustainable government financial position, defined in two ways: a budget deficit no higher than 3% of GDP; and, a ratio of public debt to GDP of no more than 60% (Economist 1997: 7).

With less than one year to go before the scheduled start date of the European Monetary Union, the critical issue centers on whether or not the 15 member economies are sufficiently similar to warrant a single currency between them. In the next section, we approach this question by examining data on the European Union pertaining to the convergence criteria stipulated in the Maastricht Treaty.

The Prospects for Convergence: A Look at the Data

In this section, we look at the behavior of output, inflation, exchange rates, interest rates and government finance for each of the 15 member states, for the period from 1972 (the end of the Bretton Woods exchange rate regime) to 1996 - all data are annual. While we can not predict success or failure in 1999, the following cursory analysis of the data provides us with some insight as to the feasibility of implementing the euro.

Growth in Real GDP. Table 2 lists the average rates of growth for each member between 1972 and 1996. These figures, which one can interpret as the long run growth of each economy, are a useful indicator of the level of convergence within the European Union. If the Union's economies have sufficiently converged, one should observe similar rates of growth for each of the member states. According to table 2, in the last 24 years, the fastest growing country among the fifteen members, Ireland, experienced an average rate of growth of more than twice that of the weakest economy, Sweden. Divergent as this may seem, it must be noted that these two members account for only 0.7% and 2.9% of all the production in the European Union, respectively. Moreover, given the relatively small (undeveloped) base from which the Irish economy has grown, Ireland is most appropriately viewed as a special case.⁵ Nonetheless, evidence of divergence is also present, albeit less so, for the larger member states. In particular, Germany's growth in the last 18 years has outpaced that of France, Italy and the United Kingdom by as much as 125% - 150%. Moreover, these differences in growth exist in the short run as

well. Namely, an examination of average growth rates within the last six years suggests that Germany continues to outpace the other large Union members by 160% to 260%.⁶

Growth in the Price Level. Table 2 also lists the average rates of inflation (as measured by the change in consumer prices) for each member country. Over the long run, Greece, Italy, Portugal and Spain have suffered with double digit inflation, while price levels in Austria, Germany and the Netherlands have remained under control; of the remaining large economies, France and the United Kingdom have had relatively high, albeit not excessive, rates of inflation. However, while the average rate of inflation over the last 24 years differs significantly between countries, only that of Greece remains disturbingly high today. As shown in figure 1, the average rate of growth in the CPI for the European Union as a whole has trended downward since the 1980's.

Foreign Exchange. Table 3 shows the mean and standard deviation of each currency's exchange value relative to Germany's deutsche mark for two periods.⁷ First, the entire period from 1972 to 1996 is considered, then, to gain some insight into the current situation, we examine 1990 to 1996. In general, the Southern European economies have had the greatest difficulty quelling long run exchange rate volatility, with (Greece's) drachmas exhibiting the greatest variability of all currencies. Nonetheless, exchange rate volatility has decreased considerably in the last decade. As the second plate of table 3 shows, in the last seven years, deviations from the mean have decreased for almost every currency. Only Greece and Italy continue to have difficulty with this criterion.

Long-Term Interest Rates. Overall, long-term interest rates within the Union have remained relatively low and stable over the last 24 years. Presently, interest rate stability is not a problem for any of the member nations (Economist 1997: 7).

Deficit to GDP and Debt to GDP. As table 4 illustrates, four EU members have maintained deficit to GDP ratios under the Maastricht specified 3% in the last 24 years.⁸ However, three of the members have experienced ratios in excess of 3 times the Maastricht specification. In terms of debt to

GDP ratios, Belgium and Italy appear to be in greatest violation of the 50% ceiling. Meanwhile, three of the largest members, Germany, France, and the United Kingdom, should have little difficulty meeting this criterion. In any case, the survival of the euro is not integrally dependent upon the Union's adherence to these two ratios, and hence it is possible that Union members will overlook violations in this area.

In summary, while inflation and interest rate volatility do not pose a problem for any of the members, divergent growth rates, exchange rate volatility and fiscal instability suggest that some member states will have difficulty gaining entrance into the proposed monetary union. Moreover, if all fifteen members do join, the universal monetary policy of the European Central Bank could prove to be disproportionately harsh on those weaker economies. That is, these economies may require a monetary policy that is more expansionary than that which the Union as a whole is willing to tolerate; pressures such as these could contribute to the demise of the EMU.

The notion that the EMU could collapse is disconcerting as well as destabilizing in two respects. First, should the euro fail before being implemented, investors may abandon European currencies as expectations regarding the future strength of the Union dissolve. The uncertainty caused by this event would hamper investment within the Union as well as increase the value of the dollar relative to EU currencies. The former would diminish the growth of the EU while the latter would hurt the US as exports to Europe decreased and imports from Europe increased. Second, if the euro were to fail *after* Union members relinquished their national currencies, the value of the euro would depreciate as nations attempted to re-introduce their national currencies. This case would be particularly destabilizing for Europe as newly issued (but abandoned) euros co-existed with re-issued member currencies. A period of uncertainty, coupled with investor speculation would most likely result in an international collapse of confidence in the European Union.

Conclusion

According to the Maastricht Treaty, on January 1, 1999, fifteen independent currencies of Europe will be dissolved in favor of the euro, a single European currency unit. But, with less than one year to go before the scheduled start date, few nations have sufficiently satisfied Maastricht's convergence criteria. Indeed, an examination of 'convergence' data on each of the 15 member states suggested that the transition to a single currency will be difficult for some members and nearly impossible for others. While inflation and interest rate volatility do not pose a problem for any of the members, divergent growth rates, exchange rate volatility and fiscal instability suggest that some member states will have difficulty gaining entrance into the proposed monetary union.

This finding is disturbing given the potentially destabilizing effects that failure of the EMU could have on European as well as other economies. Failure of the euro could cause uncertainty in the EU, thus hampering investment within the Union as well as hurting US exports. Moreover, failure of the euro *after* Union members relinquish their national currencies would cause chaos in the foreign exchange markets as nations attempted to abandon the euro and re-introduce their national currencies. An international collapse of confidence in the European Union would most likely result.

If the EMU succeeds, cost reductions and efficiency gains are certain to make the EU more competitive. Therefore, that the US prepare to compete with a larger, more streamlined Europe is crucial. In either case, the changes taking place in the European Union are monumental, and hence warrant the attention of all nations, particularly the US.

Works Cited

- Baun, Michael J. 1996. *An Imperfect Union*. Colorado: Westview Press.
- Bordo, Michael D. 1993. "The Bretton Woods International Monetary System: A Historical Overview," In *A Retrospective on the Bretton Woods System*, edited by Michael D. Bordo and Barry Eichengreen. Chicago: University of Chicago Press.
- Corden, W. Max. 1994. *Economic Policy, Exchange Rates and the International System*. Chicago: University of Chicago Press.
- The Economist*. 1997. "Convergent Enough?" May, v343, n8019.
- Eichengreen, Barry. 1992. "Should the Maastricht Treaty Be Saved?" *Princeton Studies in International Finance*, Dec., n74.
- Holden, Neville. 1992. *The Single European Act and Maastricht*. Great Britain: Thornhill Press Ltd.
- Milner, Christopher and David Allen. 1992. "The External Implications of 1992," In *The Single European Market and Beyond*, edited by Dennis Swann. New York: Routledge.
- Swann, Dennis. 1992. "The Single Market and Beyond: An Overview," In *The Single European Market and Beyond*, edited by Dennis Swann. New York: Routledge.
- Tew, Brian. 1992. "Onward to EMU," In *The Single European Market and Beyond*, edited by Dennis Swann. New York: Routledge.

Table 1: Comparative Summary Statistics: European Union Members and the United States, 1992-1994.*

Country	(1) Share of GDP Relative to EU	(2) Share of GDP Relative to US	(3) Population (in millions)	(4) Population Share Relative to EU	(5) Population Share Relative to US
Austria	2.6%	2.8%	8.0	2.2%	3.1%
Belgium	3.2%	3.5%	10.1	2.7%	3.9%
Denmark	2.0%	2.2%	5.2	1.4%	2.0%
Finland	1.4%	1.5%	5.1	1.4%	2.0%
France	18.9%	20.6%	57.9	15.6%	22.2%
Germany	27.3%	29.8%	81.4	21.9%	31.2%
Greece	1.0%	1.1%	10.4	2.8%	4.0%
Ireland	0.7%	0.8%	3.6	1.0%	1.4%
Italy	14.2%	15.5%	57.2	15.4%	21.9%
Luxembourg	0.1%	0.2%	0.4	0.1%	0.2%
Netherlands	4.7%	5.1%	15.4	4.1%	5.9%
Portugal	1.1%	1.2%	9.9	2.7%	3.8%
Spain	7.1%	7.7%	39.2	10.6%	15%
Sweden	2.9%	3.2%	8.8	2.4%	3.4%
UK	12.7%	13.9%	58.4	15.7%	22.4%
EU	100%	109.2%	371.0	100%	142.3%
United States	91.6%	100%	260.7	70.2%	100%

* Data Source: International Financial Statistics Yearbook 1997, International Monetary Fund. GDP data are 1992; population data are 1994. Columns (1) and (2) are calculated by converting the GDP of each country into 1992 dollars and then dividing by GDP_{EU} in column (1) and GDP_{US} in column (2).

Table 2: Mean Growth Rate in Real GDP and the Price Level: European Union Members, annual data for the period 1972 to 1996*

Country	Mean Growth Rates	
	(1) Real GDP	(2) Price Level
Austria	2.3%	4.0%
Belgium	2.0%	4.8%
Denmark	1.9%	6.3%
Finland	2.3%	7.0%
France	2.2%	6.6%
Germany	3.0%	3.2%
Greece	2.2%	16.4%
Ireland	4.0%	8.3%
Italy	2.4%	10.2%
Luxembourg	2.7%	4.6%
Netherlands	2.3%	3.5%
Portugal	3.1%	15.5%
Spain	2.4%	10.3%
Sweden	1.6%	7.5%
UK	2.0%	7.9%

* Data Source: International Financial Statistics Yearbook 1997, International Monetary Fund. Mean growth rates are calculated as the coefficient on time in a regression of the natural log of each country's GDP (or CPI) on a constant and time trend. Due to data constraints some sample periods are amended as follows: 1972-1995 for GDP_{Portugal} and GDP_{Sweden}; 1972-1994 for GDP_{Austria}, GDP_{Belgium}, and GDP_{Greece}; 1972-1992 GDP_{Luxembourg}; 1979-1996 for GDP_{Germany}.

Table 3: Foreign Exchange Volatility: European Union Members, means and standard deviations of annual data for the periods 1972 to 1996 and 1990-1996.*

Country	Foreign Exchange Rate 1972-1996		Foreign Exchange Rate 1990-1996	
	(1) Mean	(2) Standard Deviation	(3) Mean	(4) Standard Deviation
Austria	7.10	0.09	7.07	0.06
Belgium	18.56	2.62	20.64	0.14
Denmark	3.34	0.63	3.88	0.04
Finland	2.26	0.58	2.97	0.31
France	2.81	0.66	3.41	0.03
Greece	65.67	53.80	139.67	22.64
Ireland	0.31	0.08	0.40	0.02
Italy	624.27	262.49	936.62	136.16
Luxembourg	18.56	2.62	20.64	0.14
Netherlands	1.10	0.04	1.12	0.004
Portugal	55.64	35.55	96.98	7.00
Spain	53.78	21.11	76.60	9.70
Sweden	3.07	1.06	4.36	0.47
UK	0.29	0.09	0.39	0.04

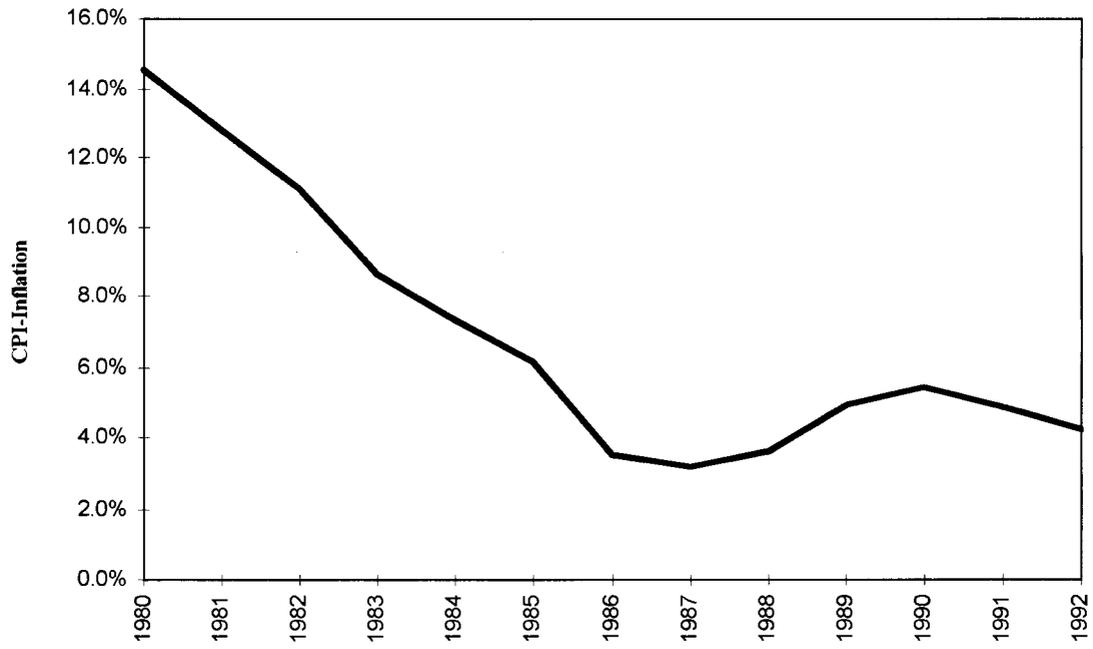
* Data Source: International Financial Statistics Yearbook 1997, International Monetary Fund. The foreign exchange means and standard deviations are calculated for each nation's currency against the Deutsche Mark.

Table 4: Debt and Deficit as a Share of GDP: European Union Members*

Country	Share Relative to Own Country GDP	
	(1) Deficit	(2) Debt
Austria	5.6%	54.6%
Belgium	4.6%	129.9%
Denmark	2.4%	n.a.
Finland	11.5%	n.a.
France	5.6%	39.6%
Germany	1.3%	30.2%
Greece	21.3%	n.a.
Ireland	0.9%	n.a.
Italy	n.a.	118.3%
Luxembourg	n.a.	n.a.
Netherlands	0.5%	61.6%
Portugal	5.0%	n.a.
Spain	7.8%	54.2%
Sweden	12.7%	66.4%
UK	5.4%	32.1%

* Data Source: International Financial Statistics Yearbook 1997, International Monetary Fund. Data are 1994. Columns (1) and (2) are calculated by dividing own country deficit and debt in 1994 by the product of own country GDP in 1990 prices and the 1994 GDP deflator (1990=100).

Figure 1: CPI Inflation in the EU



Source: IFS, EC Country CPI's are GDP-Weighted

¹ The term 'European Union' replaced 'European Community' with the passage of the Maastricht Treaty in 1992.

² While the agreement implied that these exchange rate bands were relatively inflexible and could only be altered by Union-wide consensus, by the signing of the Maastricht Treaty, these bands had been altered on some twelve different occasions.

³ In 1992, Spain devalued the peseta while Italy and the UK left the ERM; in 1993, currency bands were widened from 2.5% to 15%.

⁴ The European Commission and the Council (of Ministers) were created by the Treaty of Rome in 1957. The former initiates and administers policy proposals for the EU. The latter is the law making body of the Commission, responsible for the passage of the Committee's draft directives.

⁵ Thanks to Evert Van der Sluis for suggesting this interpretation of the Irish data.

⁶ The average rates of growth for the period 1990-1996 were as follows: Germany 2.6%, UK 1.6%, France 1.1% and Italy 1.0%.

⁷ The Deutsche Mark is typically used as the benchmark currency because it is perceived to be the strongest and most stable of the larger European nations.

⁸ Data were unavailable for Italy and Luxembourg. The former is believed to have a deficit near (but above) the required 3% of GDP, while the latter is in compliance (Economist 1997: 7).