EUROPEAN MONETAPY INTEGRATION THE RECENT EXPERIENCE*

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1. A BRIEF HISTORY

The Treaty of Rome, without explicitly stating the objective of Monetary Union, sets the foundations for such an objective through Articles 103 - 109. Within these Articles, it is recognized that the interdependence among the member economies should secure both internal and external stability in the Community in relation with the rest of the world. The two fundamental objectives should be achieved by the coordination of national economic policies, particularly monetary and budgetary policies (Article 105). There is a presumption in favour of the fixed exchange rate regime (Article 107) and the intention of financing deficits of the member countries by the funds of the Community or international institutions (Article 108) is explicit. However, these Articles do not rest on any analytical approach of how to achieve the objectives.

The first serious proposals for Monetary Union came in 1968 from Raymond Barre. The subsequent meeting of the heads of states in December 1969, in The Hague, proclaimed formally the Economic Monetary Union and the appointed Werner Committee presented its final report in October 1970. According to the Werner Group proposals, Monetary Unification had to be achieved by 1980 in two stages. In the first stage, the member countries should co-ordinate their aggregate demand policies, narrow the margins of fluctuations of exchange rates around their parities and finally it had to achieve the irrevocable fixing of the price of the Community monies simultaneously with the elimination of all restrictions on capital movements. A European decision making institution responsible for

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the Community economic policy was to be established, but the member governments, particularly France and Germany, could not agree on the second stage.

The arguments centred on the strategy for Monetary Unification, emphasizing the importance either of the consistent objectives and harmonization policies- Germany - or of the achievement of narrower margins of exchange rates, pooling of reserves and financial assistance - France. The French succeeded in passing their plans and their view was adopted in February 1971 by the Council of the European Communities. However, the collapse of the Bretton Woods system on the 15th of August 1971 did not allow the European Communities to achieve their objectives for the first stage of Monetary Unification. On the other hand, the international monetary instability forced the member governments to reexamine feasible reforms for the International Monetary System.

Thus, in the negotiations following the 15th of August and leading to the Smithsonian Agreement of 18th December 1971, the E.C. countries agreed to remove the dollar from the central role by devaluing it. In Basle, new margins of fluctuations were introduced among the E.C. currencies on either side of the new parities of 2.25 per cent. Also, the European currencies could fluctuate among each other in an amplitude of 2.25 per cent. The narrowing of the European band was in the spirit of the Werner Plan for the European Monetary Unification. This scheme, known as the snake in the tunnel, instituted on 24th April 1972, was operating from 1st July 1972, but its success proved to be short-lived. The U.K. and Ireland left two months after they joined the system. Denmark followed them, to re-enter in 1972, Italy withdrew in February 1973, France left in 1974, rejoined in 1975 and left again in 1976. Also, the Deutschmark, Guilder and Danish Krone changed parity three times from February 1973 to October 1977, while the Belgian Franc changed twice. The Deutschmark became the dominant currency in the system, largely determining the rate of inflation of the member countries. This process affected France most, who proposed in 1974 that the 1972 Agreement in Basle had to be modified. Although the Werner Plan had failed, Roy Jenkins (1977) made his appeal for a revival of the debate for the European Monetary Unification.

In December 1978, Chancellor Schmidt and President Giscard d' Estaing announced their decision «to create a zone of monetary stability in Europe». The The new European Monetary System (EMS) was established and became effective on 13th March 1979. The following sections are devoted to describing the main features, the functioning and the performance of the European Monetary System:

2.a. THE EUROPEAN MONETARY SYSTEM (EMS)

The emergence of the EMS was reflecting the decision of politicians for a viable reform of the International Monetary System, resulting in the recovery of the European Economy, Accordingly,

> «...the purpose of the EMS is to establish a greater measure of monetary stability in the Community... a fundamental component of a more comprehensive strategy aimed at lasting growth stability, a progressive return to full employment, the harmonization of living standards and the lessening of regional disparities in the Community».
>
> (European Economy, 3: 65 - 111)

At the centre of the EMS is the European Currency Unit (ECU). This is used as the numeraire of the exchange rate system, as the indicator of divergence and as a means of settlements between participating authorities. The official price of the ECU in terms of currency (i) is a currency basket containing the weighted sum of the official exchange rates (parities or central rates) of currency i, i.e.. (Fratianni, M., 1980; Grauwe-Peeters, 1978) :

$$\bar{E}R_i = \sum_{j=1}^{n} q_j \bar{e}_{ij} \qquad (1)$$

where :

ERi = the official price of the ECU in terms of currency i

qj = the amount of currency j in the basket

eij = the official price of currency j in terms of currency i.

Also, the market value of the ECU is defined as :

$$ER_i = \sum_{j} q_j e_{ij} \qquad (2)$$

where ERi, eij stand as above but in market prices.

Dividing (1) by ERi yields:

$$1 = \sum_j q_j \frac{\bar{e}_{ij}}{ER_i} \tag{3}$$

but

$$\bar{e}_{ij} = \frac{\bar{E}R_i}{ER_j} \tag{4}$$

then :

$$\sum q_j \frac{1}{ER_j} = \sum w_j = 1 \tag{5}$$

where

$$w_j = \frac{q_j}{ER_j} \tag{6}$$

and (6) corresponds to the weight of currency j in the basket.

Examining the properties of the system, it is firstly observed that from (6) there is an inverse relation between wj and ERj, and secondly, by taking the logs of (2) and differentiating, it is implied :

$$\hat{ER}_i = \frac{\Sigma q_j \, e_{ij} \, \hat{e}_{ij}}{ER_i} = \sum w_j \, \hat{e}_{ij} \tag{7}$$

The formula (7) states that the larger the weight of the participant currencies in the basket, the greater the effect of a change in the bilateral rate êij and ÊRi. As

long as a specific country shares the larger weight in the basket, its currency becomes the dominant one in the basket.

Also, by substituting (4) to (7) yields :

$$\Sigma w_J \hat{E}Rj + \hat{E}Ri\, W_i = 0 \qquad (8)$$

The implications derived are : firstly, the dominant currency in the basket determines the fluctuations of at least one other currency. Also, if the currency basket is the indicator of divergence and a country must stabilize around the official value of the ECU, the dominant currency will never have to adjust.

Also, each country should endeavour to keep the officially established price of ECU in terms of its own currency. Since the ratio of two different ECUs defines the exchange rate, a «grid of parities» is determined, fixing the official bilateral exchange rate, i.e.:

$$\begin{bmatrix} 1 & \bar{e}_{12} & \cdots & \bar{e}_{18} \\ \bar{e}_{21} & 1 & & \\ \vdots & & \ddots & \\ \bar{e}_{81} & & & 1 \end{bmatrix} \qquad (9)$$

In such a system, the need to determine the «parity grid» is restricted in an eight - cell vector. Also, the problem of the nth country arises and, consequently, restrictions on the monetary policies of the rest of the countries. Thus, the nth country, following an independent monetary policy, determines the rate of inflation of the member countries. In order to avoid this problem, an indicator of exchange rate divergence is used, obliging member countries to follow a weighted average of inflation in the Community. Thus, having set the official price of the ECU in terms of national currencies, a maximum divergence (depending on the weight) is determined and a «threshold of divergence» at 75 per cent of the maximum spread of divergence is used as a starting point for intervention by the monetary authorities in correcting the situation.

The proper measures that can be taken are :

(1) Diversified intervention.

(2) Measures of monetary policy.

(3) Changes in the central rate.

(4) Other measures of economic policy.

Although the EMS attempts to overcome the nth country problem and also avoid the dominant country problem by eliminating the influence of weights, it is unlikely to prevent exchange rate changes. It is also possible for the surplus countries — for reasons of political expedience or under the pressure of social groups — to compensate for the deficit ones either by intervening in financial markets, or by undertaking long run investment in the°weak economies, the latter clearly facilitating Monetary Integration.

2.b. The European Monetary Fund

Another feature of the European Monetary System is the future creation (according to the Brussels Resolution two years after the implementation of EMS) of the European Monetary Fund (EMF). The main functioning of the EMF will be centred on the creation of ECUs in two stages, and the granting of creadit facilities to member countries in order to support their currency within the EMS.

According to the Resolution, in the first stage the participating countries will transfer twenty per cent of their gold and dollar reserves in exchange for the equivalent amount of ECUs. In the second stage, the EMF would have to provide an equivalent amount of ECUs in exchange for domestic monies. At this stage, if no open market sales take place, the world reserves will increase.

The credit facilities given in ECUs are in the spirit of the SDRs, since the holder of ECUs receives interest equal to the weighted average of the Community countries and any member can borrow without limit provided that it repays the loan after 45 days. Also, every member receives monetary support, which has a maturity of three months with a possible extension of three months. However, the creation of EMF has been delayed for a further two years: «...under the present provisions, the swaps are to be unwound in March 1983, save in the event of a unanimous decision to the contrary by the Governors of the central banks» (European Economy, No. 12, July 1982, p. 70). This delay is due to the slow progress achieved in the pursuit of greater policy convergence.

3.a. EMS: THE PERFORMANCE

According to the European Council at Bremen, the objective of the system is to establish «a scheme for the creation of a closer monetary cooperation leading to a zone of monetary stability in Europe». Although a number of commentators have interpreted «monetary stability» solely in terms of exchange rates, G. Zis (1982) indicates that: «...the only interpretation of 'monetary stability' that is logically consistent is one that recognizes the incompatibility of exchange rate stability with high inflation rate». Thus, monetary stability should be extended to cover a number of inter-related variables such as prices, exchange rates, interest rates and other monetary variables. For a fair judgement of its performance, a number of criteria should be used which should take into account the world economic environment, the economic performance of the member governments before the creation of the EMS, the performance of the non-participating major economies, and the degree of both real and monetary convergence attained after the system was established.

After the collapse of the Bretton Woods system, the world economy experienced an acceleration of inflation rates. During the period 1974 -1978, the average rate of inflation in the E.C. increased to 10.4 per cent with a weighted dispersion of 4.1, compared with 7.3. and 4.1 respectively during tge period 1968 -1974. There was also a serious divergence of inflation rates among the major economies. Thus, Italy and the U.K. experienced relatively high inflation rates compared with France, the U.S.A. and West Germany, which experienced relatively low rates. Japan's inflation rate reached 24 per cent in 1974 but fell to 8 per cent by 1977. Those high rates of inflation (see Tapies 1, 2, 3 and Figures 1, 2) were associated with high growth rates in the money supply. A feature of the period as G. Zis (1982) indicates, is

> «...that since 1973 countries' monetary policies have become more divergent than in the previous period. However, the dispersion of inflation rates has increased even more sharply. This phenomenon can easily be explained. Monetary theory predicts that under fixed exchange rates the dispersion of money supply growth rates will not give rise to similar dispersion in national inflation rates, but will be reflected in balance of payments disequilibria. Under flexible exchange rates the divergence of national monetary policies will determine exchange rate changes and the differences among countries' rates of inflation».
>
> (pp. 7-8)

TABLE 1.

Inflation rates, percentage changes

	U.S.A.	Japan	Germany	France	U.K.	Canada	Italy	Greece[1]
1955	-0.34	0	1.7	1	4.1	0.2	2.3	5.4
1956	1.6	0.16	2.5	4.2	5.3	1.4	3.3	3.6
1957	3.3	3.1	1.9	-0.7	3.6	3.2	1.2	2.2
1958	2.8	0.89	2.2	14.2	2.9	2.6	2.8	1.3
1959	0.8	1.5	1.0	5.6	0.6	1.0	-0.5	2.4
1960	1.4	3.6	1.4	3.6	1.0	1.3	3.0	1.5
1961	1.1	5.3	2.3	3.3	3.4	0.6	2.1	1.8
1962	1.2	6.8	3.0	4.8	4.3	1.2	4.7	-0.35
1963	1.2	8.5	3.0	4.8	2.0	1.7	7.5	2.9
1964	1.3	3.9	2.3	3.4	3.3	1.8	5.9	0.91
1965	1.7	6.6	3.4	2.5	4.8	2.4	4.6	3.0
1966	2.9	5.1	3.5	2.7	3.9	3.7	2.3	4.9
1967	2.8	4.0	1.4	2.7	2.5	3.6	3.7	1.6
1968	4.2	5.3	2.9	4.5	4.7	4.0	1.4	0.33
1969	5.4	5.2	1.9	6.4	5.4	4.6	2.6	2.4
1970	5.9	7.7	3.4	5.2	6.4	3.3	5.0	2.9
1971	4.3	6.1	5.3	5.5	9.4	2.9	4.8	2.9
1972	3.3	4.7	5.5	6.2	7.1	4.8	5.7	4.2
1973	6.2	11.7	6.9	7.3	9.2	7.6	10.8	14.36
1974	11.0	24.5	7.0	13.7	16.0	10.8	19.1	23.84
1975	9.1	11.8	6.0	11.8	24.2	10.8	17.0	12.56
1976	5.8	9.3	4.5	9.6	16.5	7.5	16.8	12.51
1977	6.5	8.1	3.7	9.4	15.8	8.0	18.4	11.42
1978	7.7	3.8	2.7	9.1	8.3	9.0	12.1	11.84
1979	11.3	3.6	4.1	10.8	13.4	9.1	14.8	17.37
1980	13.5	8.0	5.5	13.6	18.0	10.1	21.2	22.22
1981	10.4	4.9	5.9	13.4	11.9	12.5	19.5	22.21

1. Bank of Greece.

Source: O.E.C.D., Economic Outlook, Various Issues.

TABLE V. 3. 2. a.

Money supply (M2/M3) in E.C.)

(annual percentage change)

	BLEU	DK	D	GR	F	IRL	I	NL	UK	EC
1960	4.0	8.0	11.1	20.2	16.7	5.5	19.8	7.0	2.4	11.4
1961	10.1	9.8	12.9	17.0	17.2	7.3	14.9	5.4	3.2	11.6
1962	7.2	8.5	10.4	21.5	18.7	9.6	17.0	6.6	4.5	11.8
1963	10.9	12.5	9.9	21.4	14.1	5.8	13.5	9.7	7.0	11.0
1964	7.5	11.1	9.4	16.0	9.8	9.4	8.8	10.4	5.6	8.7
1965	8.9	9.7	10.6	12.9	10.9	6.7	15.4	6.2	7.6	10.5
1966	7.9	12.8	8.3	18.2	10.6	10.6	13.8	5.9	3.4	8.8
1967	6.8	9.8	12.0	16.1	13.1	12.7	13.3	10.9	9.3	11.5
1968	8.3	14.5	11.8	17.8	11.6	16.9	11.6	14.8	6.8	10.9
1969	6.8	10.2	9.4	16.2	6.1	11.2	11.4	10.2	2.4	7.6
1970	9.3	3.3	9.1	19.3	15.4	14.0	13.6	11.0	9.5	11.4
1961-70	8.4	10.2	10.4	17.6	12.7	10.4	13.3	9.1	5.9	10.4
1971	13.6	8.5	13.5	22.4	17.8	15.0	17.1	9.0	13.8	14.8
1972	17.2	15.0	14.4	23.6	18.5	14.1	18.3	11.9	24.0	16.0
1973	14.5	12.6	10.1	14.5	15.0	26.1	23.2	21.9	26.4	17.5
1974	11.0	8.9	8.5	20.9	15.9	20.6	15.5	20.0	10.2	12.6
1975	17.1	25.1	8.6	26.5	18.2	18.9	23.5	5.7	6.5	13.5
1976	13.5	10.9	8.4	26.8	12.9	14.4	22.8	22.7	9.5	13.2
1977	9.9	9.9	11.2	22.7	13.9	17.1	23.9	3.6	10.9	13.2
1978	9.9	8.7	11.0	26.0	12.2	28.9	24.2	4.2	15.0	14.0
1979	6.0	10.8	6.0	18.4	14.4	18.7	23.1	6.9	12.7	12.3
1980	2.7	8.1	6.2	24.7	9.7	17.7	17.0	3.8	18.6	11.3
1971-80	10.4	11.3	9.8	22.6	14.8	19.2	19.5	11.6	14.5	14.0
1981	6.6	9.6	5.0	34.7	11.4	17.4	16.0	5.2	13.5	10.5

Source: European Economy, No. 14.

TABLE 2.b.

Monetary aggregates: Annual percentage changes

	1968/1960	1974/1968	1978/1974	1979/1978	1980/1979	1981/1980	1982/1981[2]	1968/1960	1974/1968	1978/1974	1979/1978	1980/1979	1981/1980	1982/1981[2]
	Belgium							Denmark						
1. Money supply[1]	8.3	11.8	12.7	7.9	4.3	5.4	7.4	10.5	9.8	13.6	9.3	8.4	11.8	12.0
2. Liquidity ratio	0.4	-0.6	2.9	1.0	-2.5	1.6	-1.2	-0.5	-2.6	0.8	-1.6	0.2	2.2	-1.6
3. Money supply per unit of output	3.6	6.1	10.7	5.4	1.8	6.6	6.9	5.2	6.3	11.1	6.1	8.6	12.0	8.8
	FR of Germany							France						
1. Money supply[1]	10.3	10.9	9.2	9.6	5.3	6.5	5.6	13.7	14.1	14.9	13.5	11.8	12.6	14.1
2. Liquidity ratio	2.7	0.1	2.2	1.1	-1.4	2.1	0.2	3.8	0.9	1.0	-0.4	-1.0	0.5	-0.8
3. Money supply per unit of output	5.8	6.2	6.7	5.0	3.2	6.5	4.6	7.9	8.1	11.6	10.1	10.4	12.4	11.8
	Ireland							Italy						
1. Money supply[1]	9.2	15.2	17.7	29.2	14.5	21.5	17.5	13.6	16.2	22.4	22.8	19.9	17.9	15.8
2. Liquidity ratio	0.3	-0.4	-0.3	12.2	-1.5	1.1	-3.1	3.0	2.0	2.8	1.2	-4.2	0.5	-1.8
3. Money supply per unit of output	4.8	10.2	12.8	26.1	12.4	19.4	15.0	7.4	11.1	20.4	17.1	15.3	18.1	13.7
	The Netherlands							United Kingdom						
1. Money supply[1]	8.5	13.7	10.6	4.8	8.0	6.6	6.8	5.4	13.7	9.9	12.8	14.9	15.6	12.4
2. Liquidity ratio	-1.4	0.3	0.2	-1.1	2.0	2.0	0.0	-1.4	2.1	-7.3	-3.4	-2.0	4.7	2.3
3. Money supply per unit of output	3.5	8.3	8.1	3.0	7.4	8.1	6.2	2.3	11.0	7.9	11.2	16.5	17.0	11.0

1. Average money supply: DK, F, NL — M2; D, I, IRL — M3; B — M2H; UK — UKL M3.

2. Commission staff forecast.

Source: Commission departments.

TABLE 2.c.

Dispersion of inflation and money supply growth rate in E.E.C., U.S., Japan

Year	Money	Inflation
1965	3.5	1.4
1966	3.8	1.1
1967	2.1	1.2
1968	2.9	1.6
1969	5.0	1.8
1970	3.8	1.5
1971	4.4	1.6
1972	4.9	1.8
1973	5.9	2.3
1974	4.2	4.9
1975	6.9	5.4
1976	4.6	4.6
1977	4.6	4.1
1978	7.1	3.0
1979	5.8	4.1
1980	4.2	5.3
1981	4.5	4.1

Source: European Economy, Various Issues, reported in Zis (1982).

TABLE 3

Price changes within the community: Annual rates of change (%)

	1968/1960	1974/1968	1978/1974	1979/1978	1980/1979	1981/1980	1982/1981[1]
				(a) Consumer prices			
B	3.2	5.9	7.9	3.9	6.5	7.6	10.2
DK	5.3	8.6	9.9	9.6	11.5	10.7	10.1
D	2.9	5.4	4.5	4.0	5.3	5.9	4.7
GR	2.3	8.3	12.6	17.7	23.7	24.4	24.0
F	3.9	7.2	9.8	10.9	13.2	12.5	13.3
IRL	3.8	10.3	15.1	13.4	18.3	20.5	18.5
I	3.8	8.7	16.7	15.0	20.4	19.0	15.0
NL	3.9	7.8	7.4	4.3	6.6	6.7	5.8
UK	3.5	8.7	15.6	14.3	15.5	10.7	9.5
EC: mean[2]	3.5	7.3	10.4	9.7	12.1	11.0	10.0
EC: weighted dispersion[3]	0.4	1.2	4.1	4.3	4.9	3.7	3.6
				(b) GDP deflator			
B	3.2	6.8	7.6	4.3	4.4	5.0	8.2
DK	5.7	9.2	10.2	7.7	8.4	9.6	10.6
D	3.0	6.1	4.3	3.9	4.7	4.3	4.4
GR	3.0	9.0	13.4	18.7	18.4	20.2	23.2
F	4.0	7.2	10.5	10.6	11.5	11.8	12.7
IRL	4.5	10.6	16.2	12.4	14.1	18.1	18.6
I	4.3	9.0	17.1	15.7	20.4	17.6	15.8
NL	(4.9)	7.9	7.9	4.2	5.3	6.0	6.2
UK	3.7	8.7	16.5	15.1	18.9	11.8	8.5
EC: mean[2]	3.8	7.6	10.8	9.9	11.8	10.2	9.6
EC: weighted dispersion[3]	0.5	1.1	4.3	4.5	5.6	4.1	3.9

1. Forecasts: economic budgets, May 1982.

2. Weighted by GDP valued at 1975 purchasing power parities

3. Weighted averages of absolute differences from the mean (see Note 2).

Source: Eurostat and Commission departments.

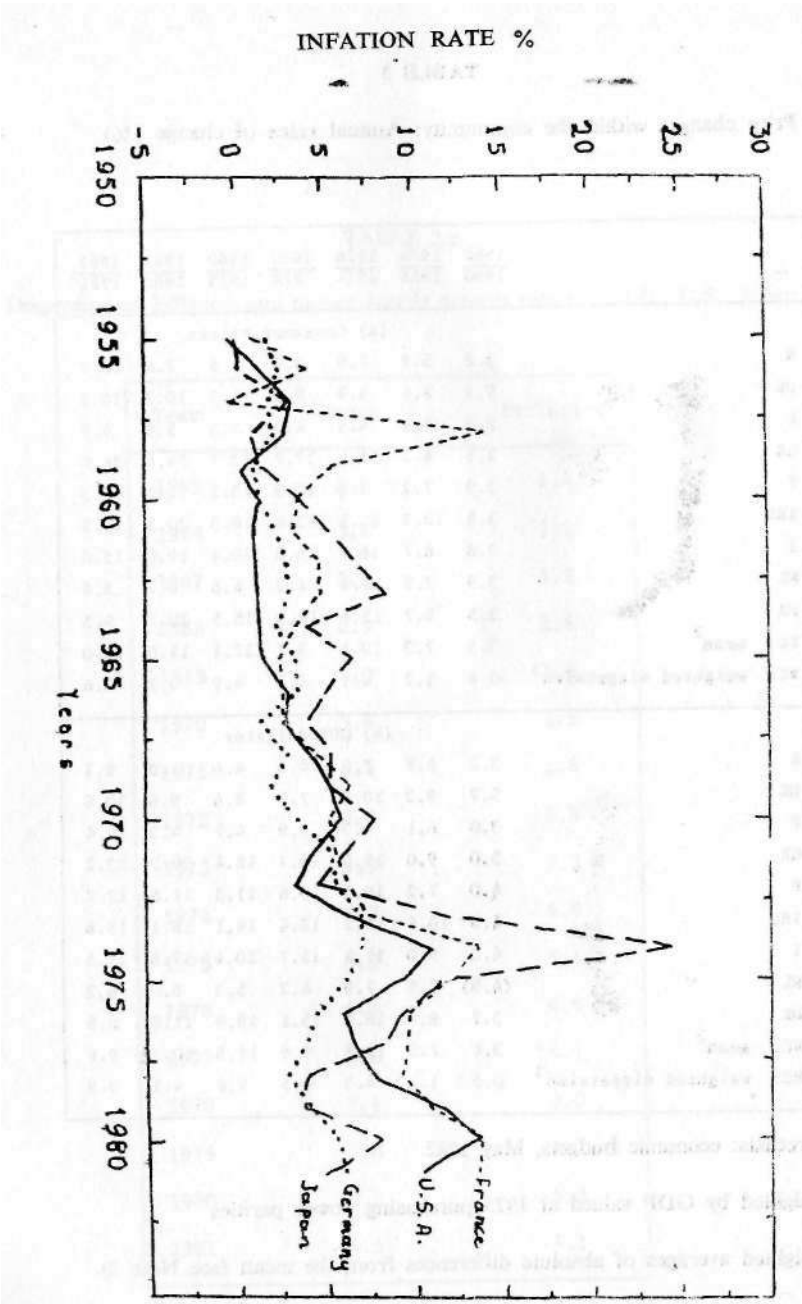

Figure 1: Inflation in Major Industrial Countries

Source: O.E.C.D., Economic Out look various issues.

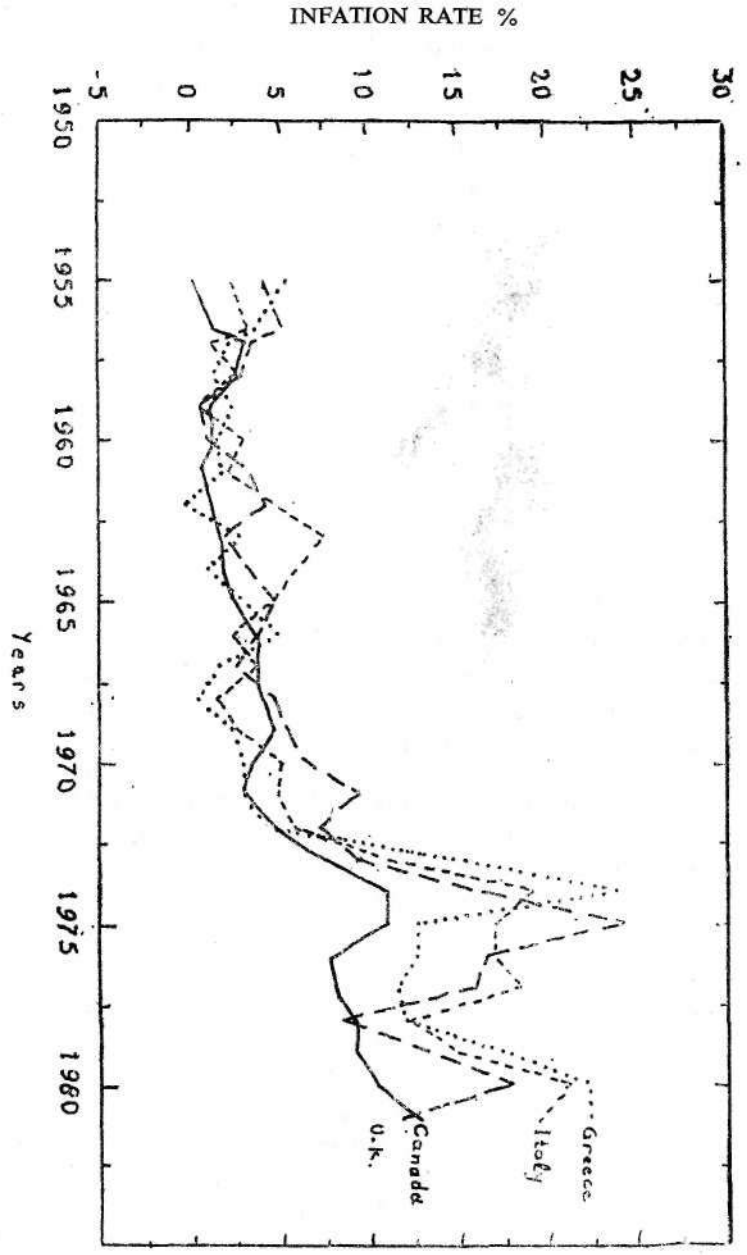

Figure 2: Inflation in Major Industrial Countries.

Source: O.E.C.D., Economic Out look various issues.

In this article it is shown that the post -1973 period is characterized by increased variability of inflation rates resulting in increased uncertainty, accompanied by a rise in the natural rate of unemployment. Also, Zis (1982) has argued that the high degree of short run exchange rate volatility may have resulted in the decline of world trade growth inducing the reallocation of resources towards the non-traded goods sector. As a consequence, the productivity of an economy which adopts flexible exchange rates is reduced and an increase in the natural rate of unemployment may occur.

However, since March 1979, the exchange rates of EMS currencies have been more stable, especially in comparison with the 1973 -1979 period. Although there was a number of realignments in the central rates of participating currencies, this fact did not undermine the functioning of the system. Indeed, it proved its flexibility in adjusting after the emergence of internal monetary pressures. However, it should be noted that future frequent changes in the parities could affect the required°cohesion and discipline of the system.

On the other hand, the performance of the non-participating currencies, namely Sterling and the Drachma, is disappointing. The dollar value of the drahcma has been nearly doubled since 1979, reflecting the inflation differential. Sterling has experienced erratic changes in its value vis-a-vis the U.S. dollar. For the period 1979 -1982, it had appreciated by 20 per cent, while in February 1983, it had reached its lowest value since the post-war period—

However, the performance of EMS regarding the convergence of the inflation rates of the member countries looks disappointing. According to Table 4, consumer price changes in 1981 and 1982 are at the same level with the ones of the period 1974 -1978. Although there is some decline in the inflation rates since 1980, this modest fall of inflation rates cannot be regarded as satisfactory. In addition, the large divergencies of inflation rates among the member countries may undermine the viability of the system by inducing frequent exchange rate changes. To avoid these problems, it is necessary that member countries co-ordinate the reduction in their money supply growth rates. Although Table 2.a, b, c shows some convergence in tighter monetary policies, it is only Germany and the Netherlands who have achieved reductions in money supply changes, while in other countries (Belgium, Denmark), they have tended to rise. Finally, although rates of growth of the money supply in Ireland and Italy have declined, these rates of growth are still high. The need for co-ordinated monetary policies stems from the fact the viability of a system of fixed exchsnge rates depend on the internal discipline of the system. In a slowly growing world, excess money supply implies balance deficits for the

expanding countries. These may lead to the reversal of the policies, but if countries resort to devaluations, the viability of the system will be undermined.

In conclusion, we can argue that the European Monetary System, despite problems, has performed remarkably well. In a world of monetary upheavals, it has achieved and maintained a relative stability of exchange rates of the member countries. It has exhibited a flexibility that has surprised many of its critics. However, it has not been successful in promoting greater convergence of inflation rates in the European Community.

3. b. EMS: THE PROSPECTS

The debate on the ability of the EMS to provide a basis for progress towards European Monetary Union reflects different beliefs regarding the inflation implications of different exchange rate regimes. The strategies of Parallel Currency Union under a flexible exchange rate regime and the Exchange Rate Co-ordination Union are the competing views. The supporters of both views disregard the «big leap» approach as an appropriate strategy and they exploit the advantages of the Parallel Currency in the Monetary Unification Process.

The proponents of the Parallel Currency Union take into account the long run implications of the augmented Phillips Curve and by considering the absence of long run exchange rate illusion, they maintain that under flexible exchange rates, every country can follow an independent monetary policy and thus reduce its inflation rate to the desirable levels. As long as the target rate of inflation is not achieved, with the inflation rate being above the average of the Community, its currency will become less desirable and it will eventually be replaced by the parallel currency. The proposed European Parallel Currency is the «Europa» (All Saints Manifesto, 1975) which is an indexed currency. Also, they are opposed to the monetary and exchange rate co-ordination union, because in a world of uncertainty, shifts in the demand for money are unpredictable and monetary co-ordination becomes difficult to achieve. Finally, the examination of the experience with the «snake» has led to the arbitrary conclusion that the EMS will also not survive.

On the other hand, the supporters of the EMS—which can be regarded as a mixture of Exchange Rate Co-ordination Union and Parallel Currency Union — advance various arguments in support of the system as a first step towards Monetary Union in Europe.

Sumner and Zis (1980) and Zis (1982), though they accept the implications of the augmented Phillips Curve, focus their attention on the significance of the short-run constraints which face policy makers, and the political factors which influence their actions. According to their analysis, analyzed also in Papadopoulos (1983), flexible exchange rates are more conducive to inflation. Further, flexible exchange rates, by potentially encouraging the reallocation of productive resources towards the non-traded goods, may result in the increase of the natural rate of unemployment. They also maintain that it is an analytical mistake to compare the Bretton Woods System with the EMS, because the former exhibited the nth country problem and accordingly: «...as much as it is the key currency country that determines the world rate of inflation, especially if it dominates the world economy in terms of size, it logically follows that a system of flexible exchange rates will be less inflation biased» (Sumner and Z 1980, p. 3). They further take into account the international political background which played the most important role in the failure of the «snake» (Sumner and Zis, 1981).

However, the future success of the EMS depends on two factors: the internal cohesion of the system and the creation of the European Monetary Fund. Although the establishment of the latter is being delayed for political reasons, the former is essential for enhancing the viability of the system. A discussion of the means by which the cohesion of the system may be improved is beyond this work's objectives. However, it is worth noting the following observations of the Monetary Committee (European Economy, 12, 1982):

«(1) Making the system more coherent :

— by reinforcing the ECU role as the centre of the system through establishing some degree of control over the process of creating ECU which, together with removing its acceptance limit modifying the interest rate formula and increasing its negotiability, will encourage an increased use within the system :

— by removing certain imperfections and filling some gaps in the system mechanisms through:

— organizing the use of Community currencies for intra-marginal interventions and extending the very short-term financing to these interventions:

— coordinating relations vis-a-vis the dollar by defining a common attitude, with a quantitatively expressed 'zone of probability', and by cooperating over interest rates:

— taking a step towards consolidating the qredit mechanisms by making the EMCF responsible for the short-term monetary support.

(2) Opening the system towards the outside by permitting third country monetary authorities to hold and use the ECU.

(3) Encouraging the use of the ECU on the financial markets by protecting its image of stability, by increasing the ECU borrowing and lending activity of Community institutions, by minimizing restrictio on the use of the ECU by progressively liberalizing the movement of ECU denominated capital.

(4) Reinforcing policy convergence by fully utilizing the existing framework and by improving the follow-up to measures taken».

(pp. 51-52)

Furthermore, there is the need for persuading the E.C. countries which have not joined EMS, namely the U.K. and Greece, to join the system. On the other, hand, the establishment of the European Monetary Fund will facilitate the adoption of common policies towards non-member currencies. However, whether or not the European Communities move towards monetary unification will depend on whether or not member countries judge such an objective as politically desirable.

TABLE 4:

Changes in exchange rates within the EMS

(a) Realignments in central rates, percentage change against the group of currencies whose bilateral parities were not changed

	Dates of realignments						
	24 September 1979	30 November 1979	22 March 1981	5 October 1981	22 February 1982	14 June 1982	21 March 1983
BFR/LFR	-	-	-	-	-8.5	-	+1.5
DKR	-2.9	-4.8	-	-	-3	-	+2.5
DM	+2	-	-	+5.5	-	+4.25	+5.5
FF	-	-	-	-3	-	-5.75	-2.5
IRL	-	-	-	-	-	-	-3.5
LIT	-	-	-6	-3	-	-2.75	-2.5
HFL	-	-	-	+5.5	-	+4.25	+3.5

(b) Variations in effective exchange rates[1] relative to EMS partners, annual percentages

	1979/1973	1982/1979[2]	1980/1979	1981/1980	1982/1981[2]
B	+1.3	-3.1	-0.1	-0.4	-3.1
DK	-1.1	-3.9	-6.8	+0.1	-4.7
D	+4.6	+4.7	+1.2	+3.0	+10.0
F	-3.0	-2.2	+1.0	-1.1	-6.4
IRL	-6.1	+0.2	+0.1	-0.5	+0.9
I	-9.4	-4.8	-3.5	-5.0	-5.9
NL	+1.7	+2.6	+0.7	+0.7	+6.5
UK[3]	-4.9	+6.5	+9.9	+9.9	-0.0

1. Export weighting, variable from year to year until 1977.

2. Forecasts: economic budgets, May 1982. The realignment of central rates on 14 June 1982 is taken into account.

3. In relation to Community countries.

Source: Eurostat and Commission departments.

TABLE 5

Adjustment of relative changes[1] in costs and prices in relation to EMS partners

Country	(a) Relative change in unit labour costs[2] - whole economy; indices in common currency						(b) Relative change in GDP price indices in common currency					
	Relative level in 1978 (= available margins relative to different base periods = 100)			Relative level in 1982[3] (= margins still available relative to different base periods = 100)			Relative level in 1978 (= available margins relative to different base periods = 100)			Relative level in 1982[3] (= margins still available relative to different base periods = 100)		
	1978/1970	1978/Ø61-70	1978/Ø68-72	1982/1970	1982/Ø61-70	1982/Ø68-72	1978/1970	1978/Ø61-70	1978/Ø68-72	1982/1970	1982/Ø61-70	1982/Ø68-72
B	117.8	111.4	115.1	99.0	93.9	96.9	105.6	102.5	105.7	87.8	85.2	87.9
DK	102.7	104.8	102.7	90.3	92.1	90.3	110.2	112.5	110.3	100.7	102.9	100.8
D	99.1	106.4	103.0	94.6	102.0	98.8	104.0	111.2	107.2	101.9	109.0	105.0
F	92.6	81.1	89.3	103.0	90.2	99.3	92.9	83.3	89.9	98.6	88.4	95.4
IRL	77.9	74.8	82.2	103.0	99.0	106.2	82.6	80.1	83.4	110.4	107.0	111.5
I	82.7	81.4	82.7	95.7	94.2	95.8	77.6	76.5	78.0	90.9	89.6	91 4
NL	112.9	121.7	111.5	112.6	121.3	111.2	119.1	123.2	116.3	121.2	125.2	118.3
UK[4]	76.3	69.8	77.7	112.2	102.6	114.2	80.1	73.4	80.6	117.8	107.9	118.5

1. Export weighting, variable from year to year until 1977.

2. Index of compensation of employees per employee divided by the index of productivity per person employed.

3. Forecasts : economic budgets, May 1982. The realignments of 14 June 1982 are taken into account.

4. Change relative to Community countries.

Sources: Eurostat and Commission departments.

TABLE 6

Bilateral central rates and intervention margins for currencies participating in the EMS exchange rate mechanism as from 22 March 1983

		Amsterdam in HFL	Brussels in BFR/LFR	Frankfurt in DM	Copenhagen in DKR	London in UKL	Dublin in IRL	Paris in FF	Rome in LIT
	+2.25%		1818,-	90,770	329,63		29,3832	276,35	58997,-
HFL 100	central rate	100	1777,58	88,7526	322,297	*	28,729[illegible]	272,158	55563,-
	-2.25%		1738,-	86,780	315,13		28,0904	266,10	52329,-
	+2.25%	5,7535		5,106	18,543		1,6530	15,659	3318,9
BFR/LFR 100	central rate	5,62561	100	4,99288	18,1312	*	1,61621	15,3106	3125,76
	-2.25%	5,5005		4,882	17,727		1,5803	14,97	2943,8
	+2.25%	115,235	2048,35		371,40		33,1015	313,63	66473,-
DM 100	central rate	112,673	2002,85	100	363,141	*	32,3703	306,648	62604,3
	-2.25%	110,1675	1958,50		355,06		31,6455	299,85	58960,-
	+2.25%	31,7325	564,10	28,165			9,1168	86,365	18305,-
DKR 100	central rate	31,0273	551,536	27,5375	100	*	8,91396	84,4432	17239,7
	-2.25%	30,3375	539,30	26,925			8,7157	82,565	16236,-
UKL 1	central rate	*	*	*	*	*	*	*	*
	+2.25%	3,5600	63,2810	3,160	11,4735			9,6885	2053,53
IRL 1	central rate	3,48075	61,8732	3,08925	11,2184	*	1	9,47313	1934,01
	-2.25%	3,4030	60,4965	3,021	10,9687			9,2625	1821,45
	+2.25%	37,58	668,-	33,350	121,11		10,7964		21677,
FF 100	central rate	36,7434	653,144	32,6107	118,423	*	10,5562	100	20415,7
	-2.25%	35,925	638,60	31,885	115,78		10,3214		19227,-
	+6%	1,911	33,970	1,696	6,159		0,549015	5,201	
LIT 1000	central rate	1,79976	31,9922	1,59733	5,80057	*	0,517061	4,89819	1000,-
	-6%	1,69500	30,130	1,504	5,463		0,486968	4,6130	
1 ECU	central rate	2,49587	44,3662	2,21515	8,04412	(0,629848)	0,71705	6,79271	1386,78

* Does not participate in the exchange mechanism.

Source: European Economy, Economic Trends.

TABLE 7:

Monthly variability of Major currencies against The ECU

	1976	1977	1978	1979	1980	1981
BFR/LFR	38.5	6.2	11.4	8.4	9.0	8.3
DKR	33.8	32.4	7.7	32.7	4.5	8.4
DM	42.7	11.6	11.7	8.6	9.6	19.7
FF	30.1	9.6	18.0	7.4	6.1	13.8
IRL	63.5	11.3	23.8	7.7	9.2	6.3
LIT	55.5	21.1	24.8	9.8	17.9	21.8
HFL	39.0	5.7	11.3	9.0	4.4	21.0
EMS average[2]	43.3	13.9	15.5	11.9	8.7	14.2
UKL	63.2	11.3	23.8	32.2	44.7	40.3
USD	20.1	24.9	49.1	28.1	34.4	62.3
Yen	34.1	39.2	70.8	87.5	82.2	25.9

1. Coefficient of variation (standard deviation of end-of-month rates for each currency in ECU, divided by the annual average of such rates). Results multiplied by 1000.

2. Unweighted average.

Source: Commission departments.

TABLE 8

The ECU: Initial composition, maximum divergence spread and divergence thresholds

Currency	(1) Amount of currency in basket	(2) Approximate weight of currency (b) at end March 1979	(3) Maximum spread (as %)	(4) Divergence threshold 75% of (3)
Belgian/ Luxembourg franc	3.66/0.14	0.10	+/-2.03	+/-1.52
German mark	0.828	0.33	+/-1.51	+/-1.13
Dutch guilder	0.286	0.10	+/-2.01	+/-1.51
British pound	0.0885	0.13	-(a)	
Danish krone	0.217	0.03	+/-2.18	+/-1.64
French franc	1.15	0.20	+/-1.80	+/-1.35
Italian lira	1.09	0.10	+/-5.43(a)	+/-4.07
Irish punt	0.00759	0.01	+/-2.22	+/-1.67

(a) Britain does not participate in the exchange rate mechanism.

Source: European Economy.

TABLE 9.a.

Bilateral central rates and Intervention margins for currencies participating in the EMS Exchange rate mechanism

		Amsterdam in HFL	Brussels in BFR/LFR	Frankfurt in DM	Copenhagen in DKR	London in UKL	Dublin in IRL	Paris in FF	Rome in LIT
	+2.25%		1782,85	92,525	326,45		27,3975	262,21	55577,0
HFL 100	central rate	100	1743,23	90,4673	319,183	"	26,7864	256,380	52341,9
	-2.25%		1704,45	88,455	312,08		26,1915	250,67	42296,0
	+2.25%	5,8670		5,308	18,726		1,57155	15,042	3188,0
BFR/LFR 100	central rate	5,73646	100	5,18961	18,3098	"	1,53659	14,7072	3002,58
	-2.25%	5,6090		5,074	17,903		1,50241	14,380	2828,0
	+2.25%	113,05	1970,85		306,83		30,2845	289,85	61433,0
DM 100	central rate	110,537	1926,93	100	352,817	"	29,6090	283,396	57857,4
	-2.25%	108,0775	1884,00		344,97		28,9520	277,09	54490,0
	+2.25%	32,0425	558,60	28,990			8,58300	82,150	17412,0
DKR 100	central rate	31,33	546,154	28,3433	100	"	8,39216	80,3239	16398,7
	-2.25%	30,6325	534,00	27,715			8,20550	78,535	15444,0
UKL 1	central rate	"	"	"	"	1	"	"	"
	+2.25%	3,8180	66,56	3,454	12,187			9,7890	2074,80
IRL 1	central rate	3,73324	65,0792	3,37736	11,9159	"	1	9,57129	1954,05
	-2.25%	3,6500	63,6315	3,302	11,6509			9,3585	1840,32
	+2.25%	39,8925	695,40	36,090	127,33		10,6855		21677,0
FF 100	central rate	39,0045	679,941	35,2863	124,496	"	10,4479	100	20415,7
	-2.25%	38,1375	664,80	34,500	121,73		10,2155		19227,0
	+6%	2,02850	35,360	1,835	6,475		0,54338	5,2010	
LIT 1000	central rate	1,91051	33,3047	1,72839	6,09804	"	0,511758	4,89818	1000
	-6%	1,79925	31,365	1,628	5,743		0,48197	4,6130	
1 ECU	central rate	2,57971	44,9704	2,33379	8,234	(0,560453)	0,691011	6,61387	1350,27

[1]Does not participate in the exchange mechanism.

Sources: European Economy, Economic Trends.

TABLE 9b

Appreciation or depreciation of the bilateral central rates of EMS Participant currencies from 14 June 1982 to 21 March 1983

	BFR/LFR	DKR	DM	FF	IRL	LIT	HFL
Belgian and Luxembourg francs (BFR/LFR)	-	-0.98	-3.8	4.1	5.18	4.1	-1.93
Danish krone (DKR)	0.95	-	-2.84	5.13	6.22	5.12	-0.97
German mark (DM)	3.94	2.93	-	8.2	9.33	8.2	1.93
French franc (FF)	-3.94	-4.88	-7.58	-	1.04	0	-5.79
Irish pound (IRL)	-4.93	-5.85	-8.53	-1.03	-	-1.03	-6.76
Italian lira (LIT)	-3.94	-4.88	-7.58	0	1.04	-	-5.7
Dutch guilder (HFL)	1.97	0.96	-1.90	6.15	7.26	6.15	-

Source: Calculated from various E.C. sources.

TABLE 10

Appreciation or depreciation of the bilateral central rates of EMS participant currencies from 13 March 1979 to 14 June 1982

	Belgian and Luxembourg franc	Danish krone	German mark	French franc	Irish pound	Italian lira	Dutch guilder
Belgian and Luxembourg francs	-	+2.-	-18.4	+0.1	-8.5	-3.2	-16.8
Danish krone	-1.9	-	-20.-	-1.8	-10.3	+1.2	-18.4
German mark	+22.6	+25,1	-	+22.7	+12.2	+26.5	+2.-
French franc	-0.1	+1.9	-18.5	-	-8.6	+3.1	-16.9
Irish pound	+9.3	+11.4	-10.9	+9.4	-	+12.8	-9.1
Italian lira	-3.1	-1.2	-21.-	-3.-	-11.3	-	-19.4
Dutch guilder	+20.2	+22.6	-2.-	+20.3	+10.0	+24.-	-

1. The table reads horizontally (for example, the Belgian franc has appreciated 2% against the Danish krone and the Danish krone has depreciated 1.9.% against the Belgian franc).

Source: European Economy.

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