

The European Monetary Union and the European Monetary System (II)

Ali M. EL- Agraa

Part I of this paper dealt with the theoretical aspects of monetary integration and examined the European Monetary Union (EMU) within that context. This part of the paper is confined to a discussion of the main features of the European Monetary System and its mechanics.

The Bremen Declaration

At this juncture it is appropriate to ask: how do the Bremen Declaration (6 and 7 July 1978), its Bonn affirmation (16 and 17 July 1978) and its adoption by the Council in the form of Resolution 'on the establishment of the European Monetary System (EMS) and related matters' on 5 December of the same year fare in the context of the proposals considered in Part I. To answer this question meaningfully, it is necessary to explain the aims of the EMS.

The EMS was introduced with the immediate support of six of the EC nations. Ireland, Italy and the UK adopted a wait-and-see attitude; 'time for reflection' was needed by Ireland and Italy and a definite reservation was expressed by the UK. Later, Ireland and Italy joined the system, while the UK expressed a 'spirit of sympathetic cooperation.' The EMS was to start operating on 1 January 1979, but France, who wanted assurances regarding the MCA system, delayed that start.

The main features of the EMS are given in the annex to the conclusions of the EC Presidency (*Bulletin of the European Communities*, No. 6, 1978:

- 1 In terms of exchange rate management, the European Monetary System (EMS) will be at least as strict as the 'snake.' In the initial stages of its operation and for a limited period of time, member countries currently not participating in the 'snake' may opt for somewhat wider margins around central rates. In principle, intervention will be in the currencies of participating countries. Changes in central rates will be subject to mutual consent. Non-member countries with particularly

strong economic and financial ties with the Community may become associate members of the system. The European Currency Unit (ECU) will be at the centre of the system; in particular, it will be used as a means of settlement between EEC monetary authorities.

- 2 An initial supply of ECUs (for use among Community central banks) will be created against deposit of US dollars and gold on the one hand (e.g. 20% of the stock currently held by member central banks) and member currencies on the other hand in an amount of a comparable order of magnitude'

The use of ECUs created against member currencies will be subject to conditions varying with the amount and the maturity; due account will be given to the need for substantial short-term facilities (up to 1 year).

- 3 Participating countries will coordinate their exchange rate policies *vis-a-vis* third countries. To this end, they will intensify the consultations in the appropriate bodies and between central banks participating in the scheme. Ways to coordinate dollar interventions should be sought which avoid simultaneous reserve interventions. Central banks buying dollars will deposit a fraction (say 20%) and receive ECUs in return; likewise, central banks selling dollars will receive a fraction (say 20%) against ECUs.
- 4 Not later than two years after the start of the scheme, the existing arrangements and institutions will be consolidated in a European Monetary Fund.
- 5 A system of closer monetary cooperation will only be successful if participating countries pursue policies conducive to greater stability at home and abroad; this applies to deficit and surplus countries alike.

Thus, in essence, the EMS envisages the creation of an EC currency zone within which there is discipline for managing exchange rates. This discipline is similar to that practised within the 'snake' arrangements. This however does not apply to all the Nine, since wider margins of fluctuation for those not participating in the 'snake' are allowed for. The ECU, which is similar to the European Unit of Account in that it is a basket of all EC currencies, will be at the heart of the system; it will be the means of settlement between the EC central banks. The EMS will be supported by a European Monetary Fund (EMF) which, within two years, will absorb the short-term financing arrangement operating within the 'snake,' the short-term monetary support agreement which is managed by the European Monetary Cooperation Fund (EMCF) and the medium-term loan facilities for balance

of payments assistance (*Bulletin of the European Communities*, No. 12, 1978). The EMF will be backed by approximately 20% of national gold and US dollar reserves and by a similar percentage in national currencies. The EMF will issue ECUs which will be used as new reserve assets. Hence, an Exchange-Stabilisation Fund (which is scarcely different from the Cairncross *et al.* (1974) proposal for an Exchange-Equalisation Account) able to issue about 50 billion US dollars will be created (*Bulletin of the European Communities*, No. 12, 1978).

Since the ECU is only an official EC reserve asset, necessary interventions in the markets for foreign exchange will be conducted with national currencies and for this purpose only EC currencies are allowed. It is also envisaged that the use of ECUs credited against reserves will be unconditional, but the use of ECUs credited against national currencies will be subject to provisos more or less equivalent to those in the 'conditional drawings' from the IMF—see De Grauwe and Peeters (1979). There will be provision for substantial short-term borrowing for day-to-day intervention. The repayment period will be 45 days with the possibility of a further three months for specified amounts. It is intended that adjustments in rates of exchange will be based on mutual consent.

Section 4 of the annex stresses the point that the status of associate membership will be conferred on those countries with close economic and financial ties with the EC, for example, Austria, Norway, etc. As far as other currencies are concerned, and particularly against the US dollar, there will be close coordination of exchange rate policies.

Finally, and more importantly, the annex stresses the point that the success of closer monetary cooperation will depend largely on closer policy coordination in both the domestic and international fields'.

As De Grauwe and Peeters (1979) have indicated, the EMS differs from previous attempts in at least two important respects. The first difference is that an exchange rate management mechanism will be introduced and that the ECU will play a central role in it. The second difference is that the EC currency zone will be backed by a considerable pool of foreign exchange reserves which could provide confidence in the system and therefore enhance its stability.

However, apart from the technical problems regarding its actual

operation (these are rigorously analysed in chapter 17), the EMS cannot work without the coordination of monetary policies (De Grauwe and Peeters 1979, p. 22) and cannot cope with the problems of the weaker areas without a deliberate policy regarding the redistribution of the gains and losses. Finally, the EMS does not envisage a *particular* future date for fixing exchange rates completely—'margins should be gradually reduced as soon as economic conditions permit to do so' (*Bulletin of the European Communities*, No. 12, 1978).

In spite of its superiority over previous proposals, the EMS *is not complete monetary integration*. It lacks the EC central bank (vested with the appropriate powers) which is necessary for coordinating monetary and economic policies.

Given this general background to the EMS, let us now turn to a consideration of its mechanics.

The Mechanics of the EMS

The ECU lies at the heart of the exchange rate mechanism of the EMS. Originally it was a basket of 9 EC currencies (all except the Greek drachma), in which each currency has a fixed weight in terms of actual amounts of the individual currencies. These currency amounts were fixed according to the relative importance of individual countries in terms of GNP, intra-EC trade and other macroeconomic variables—see Table 1. The fixing is not immutable since it can be altered on agreement in the Council of Ministers when any particular currency amount is considered to have moved far out of line with that country's economic performance/importance. Although the currency amounts in the ECU have remained constant between 1979 and 1984 (see postscript), the each currency have changed as a necessary outcome of the exchange rate movements since the establishment of the EMS: since March 1979, the successive revaluations of the Deutsche Mark (DM) and the Dutch Guilder (DG) have resulted in them having greater shares in the ECU, all the other currencies, except Sterling, have declined accordingly.

The ECU value of any currency, whether within the EMS or outside it, can easily be calculated—see Table 1(b). The US\$ (o, hereafter) value of each currency amount is calculated according to the market rate on a given day and these values are summed up to give the \$ value of 1 ECU. In Table 1(b), this is done for values applying on 31 December 1982. This

results in 1 ECU being equal to \$0.968 on that date. Once this done for an individual currency, the ECU value for any other currency may be calculated in a similar way or directly by use of, in this case, the \$/ECU and \$/other currency cross rates.

Table 1

(a): *Composition of the European Currency Unit*

	Currency amounts	Approximate currency weights	
		End-March 1979	End-September 1983
Deutsche Mark	0.828	33.0	37.4
French franc	1.15	19.8	16.9
Pound sterling	0.0885	13.3	14.1
Dutch guilder	0.286	10.5	11.5
Belgian franc	3.66	9.6	8.6
Luxembourg franc	0.14		
Italian lira	109.00	9.5	7.9
Danish krone	0.217	3.1	2.7
Irish pound	0.00759	1.2	1.1

(b): *Calculation of Dollar Value of 1 ECU (31.12.82)*

	Currency amounts	Dollar rate ¹ of currencies (31.12.82)	Dollar value of currency amount ² (31.12.82)
Deutsche Mark	0.828	2.3765	0.348
French franc	1.15	6.725	0.171
Pound sterling	0.0885	0.6194	0.143
Dutch guilder	0.286	2.6245	0.109
Italian lira	3.66	1370.0	0.080
Belgian franc	0.14	46.920	0.078
Danish krone	109.00	8.384	0.025
Irish pound	0.217	0.7161	0.011
Luxembourg franc	0.00759	47.988	0.003
Dollar value of 1 ECU			0.968

Note: (1) All rates (including pound sterling and Irish pound) expressed as units of national currency equivalent to 1 dollar.

(2) Derived as column 2 divided by column 1.

In order to establish the exchange rate mechanism of the EMS, each currency was given a central rate against the ECU, through the operation of the above procedures. These ECU-related rates then enabled the calculation of cross-rates between EC currencies to form what came to be referred

Table 2 Bilateral Central Rates (Parity Grid) and Intervention Margins in EMs (as from 22. 3. 1983)

	Amsterdam	Bussels	Frankfurt	Copenhagen	Dublin	Paris	Rome
Dutch guilder (100)	+2.25% central rate	1818. -	90.770	329.63	29.3832	278.35	58997. -
	-2.25%	1777.58 1738. -	88.7526 86.780	322.297 315.13	28.7295 28.0804	272.158 266.10	55563. - 52328. -
Belgian/Luxembourg franc (100)	+2.25% central rate	5.7535 5.62561	5.106 4.99288	18.543 18.1312	1.6530 1.61621	15.659 15.3106	3318.9 3125.76
	-2.25%	5.5005	4.882	17.727	1.5803	14.97	2943.8
Deutsche Mark (100)	+2.25% central rate	115.325 112.673	2048.35 2002.85	371.40 363.141	33.1015 32.3703	313.63 306.648	66473. - 62604.3
	-2.25%	110.1675	1958.50	355.06	31.6455	299.05	52960. -
Danish krone (100)	+2.25% central rate	31.7325 31.0273	564.10 551.536	28.165 27.5375	9.1168 8.91396	86.365 84.4432	18305. - 17239.7
	-2.25%	30.3375	539.30	26.925	8.7157	82.565	16236. -
Irish pound (1)	+2.25% central rate	3.5600 3.48075	63.2810 61.8732	3.160 3.08925	11.4735 11.2184	9.6885 9.4213	2053.53 1934.01
	-2.25%	3.4030	60.4965	3.021	10.9687	9.2625	1821.45
French franc (100)	+2.25% central rate	37.58 36.7434	668. - 653.144	33.350 32.6107	121.11 118.423	10.7964 10.5562	21677. - 20415.7
	-2.25%	35.925	638.60	31.885	115.78	10.3214	19227. -
Italian lira (1000)	+6% central rate	1.911 1.79976	33.970 31.9922	1.696 1.59733	6.159 5.80057	0.549015 0.517061	5.201 4.8919
	-6%	1.69500	30.130	1.504	5.463	0.486968	1000. - 4.6130

to as a 'parity grid.' Around these parity grid rates, fluctuations of up to 2.25% on either side are allowed, with the central banks concerned obliged to take whatever measures are necessary to maintain a particular cross-rate within these margins. The only exception to this margin is that of the 6% granted to the Italian Lira (IL) which was designed to smooth the transition of IL from outside the previous 'snake' arrangement to EMS membership. Dennis (1985, p. 317) argues that there is little sign as yet . . . that the wider margins being used by the IL are to be narrowed in time, as originally planned." Note that the Irish authorities did not avail themselves of a similar transitional arrangement for their currency.

It was not the aim of the parity grid to create a set of immutably fixed cross-rate relationships; the EMS was designed to be only a 'zone of monetary stability.' Hence, parity changes were envisaged and have actually occurred at frequent intervals and without delay. Therefore, Table 2 sets out this information after the realignment of central rates on 22 March 1983. Each cell of the table, apart from the diagonal, has three entries corresponding to the central cross-rate and the upper and lower intervention points. For example, the central rate of 100 DM against the Danish Krone (DK) is DK 363.141 (i.e. 100 DM=DK 3.631) with intervention required at DK 371.40 (weak DK) and DK 355.06 (strong DK).

Adjustments of currency values may occur by agreement between the member governments and are affected by a given percentage change of that currency's bilateral central rate against all other currencies (assuming, for ease of exposition, that no other currency is also altered in value). However, given that all currencies in the basket are related to the ECU, any change in one country's set of bilateral cross-rates will, by definition, alter the ECU values of all participating currencies. An example may help to explain this. Suppose the DK is revalued by 5% in terms of its bilateral cross-rates and that the weight of the DK in the ECU is 2.7% (as in September 1983). The rise in the ECU parity of the DK is given by:

$$\begin{aligned} \text{Increase in ECU parity of DK} &= 0.05 (1.00 - \text{NGw}), \\ \text{where NGw is the weight of the DK in the ECU,} \\ &= 0.05 (1.00 - 0.027) \\ &= 0.04865 = 4.87\% \end{aligned}$$

Accordingly, the ECU parities of all the other currencies decline in this

example by 0.13%. Needless to add, in the more likely situation of more than one adjustment in bilateral rates occurring together at a given point in time, the calculation of the effects on the ECU rates is more complex, but is essentially the same in principle. Therefore, any change in currency relations in the EMS inevitably leads to a change in the ECU central rates of all the participating currencies. In order to illustrate this, Table 3 sets out the ECU central rates of all the participating currencies introduced on the dates at the head of each column. Apart from the first date, when the EMS was established, each corresponds to a realignment that occurred in the EMS—see below. However, the fact that the ECU rates of all currencies change during a realignment, whether or not that currency has been changed in value terms of its cross-rates with all other currencies, should be clear from the table. The easiest example to ensure a full understanding of this point is that of the 5% devaluation of the DK in November 1979—this raised the DK value of 1 ECU from DK 7.3659 to DK 7.7234 while slightly reducing the rate of all the other currencies relative to 1 ECU—note that this is more or less the reverse of the previous example.

The creation of the parity grid arranged in the EMS did not occur without a degree of argument on the type to be established. This argument centred around the need for symmetry in the obligation to intervene when currencies reached their intervention points. Under the parity grid scheme, any crossing of intervention points obviously involves at least two divergent currencies, one being strong with the other being weak. The aim was to avoid the usual situation in the former 'snake' arrangement of the weak currency country being forced, through fear of declining reserves, to adjust its economy with less pressure being placed on the country with the strong currency, i.e. the scheme is one of *joint responsibility*, very much along the lines suggested by Keynes for the IMF; sadly, but understandably, the IMF was created along the lines of the White Plan (the US plan) which lacked such a sensible proviso. Certain countries, notably Italy, the UK and initially France, argued in favour of intervention and adjustment being determined with reference to the basket of currencies itself. This would forestall asymmetrical adjustment by there being the possibility of only one currency being out of line at any one time. Hence, the onus of adjustment would be clear. A fairly exhaustive debate ensued on the relative merits of each

Table 3 ECU Central Rates of EMS Currencies

	13. 3. 79	24. 9. 79	30. 11. 79	23. 3. 81	5. 10. 81	22. 2. 82	14. 6. 82	21. 3. 83
Deutsche Mark	2. 5106	2. 4856	2. 4821	2. 5450	2. 4099	2. 4182	2. 3338	2. 2152
French franc	5. 7983	5. 8552	5. 8470	5. 9953	6. 1744	6. 1956	6. 6139	6. 7927
Italian lira	1148. 15	1159. 42	1157. 79	1262. 92	1300. 67	1305. 13	1350. 27	1386. 78
Dutch guilder	2. 7208	2. 7475	2. 7436	2. 8132	2. 6638	2. 6730	2. 5797	2. 4959
Belgian/Luxembourg franc	39. 4582	36. 8456	39. 7897	40. 7985	40. 7572	44. 6963	44. 9704	44. 3662
Danish krone	7. 0859	7. 3659	7. 7234	7. 9192	7. 9112	8. 1838	8. 2340	8. 0441
Irish pound	0. 6626	0. 6691	0. 6682	0. 6851	0. 6845	0. 6868	0. 6910	0. 7171
Pound sterling*	0. 6632	0. 6498	0. 6489	0. 5421	0. 6010	0. 5570	0. 5605	0. 6298

Note: * A central rate for sterling is calculated despite its absence from the EMS exchange rate arrangement.

proposal before the existing one was adopted. However, in order to accommodate those in favour of the basket arrangement, a 'divergence indicator' was created.

The divergence indicator is a sort of warning device when any one currency is moving significantly out of line with all the others. This indicator is based on the difference between the day-to-day value of a particular currency against the ECU and that currency's ECU central rate itself. The threshold of divergence defined amongst the EMS currencies was 75% of the maximum allowable deviation between the ECU central and market rates for a particular currency. Due to the different weights of the currencies in the ECU, an adjustment is needed to the divergence indicator to allow for the fact that the larger currencies would take longer to reach their divergence limits as they pulled the ECU itself along with them to a greater extent.

Again, an example may help, with the DG being the currency in consideration. The maximum allowable upward movement of the DG against the ECU of 2.25% will, since the DG is 11.5% of the ECU, cause the market ECU rate of the DG to rise by only 1.991% $2.25\% \times (1.00 - 0.115)$. The divergence indicator is therefore 75% of this permissible variation and is equal to 1.49%. In Table 4, these divergence limits 'as at 30 September 1983) are set out in column 5, with columns 1 and 2 containing the current (early 1984) ECU central rates and the market rates at the end of September 1983 respectively. It is clear that the greater is the weight of a particular currency in the ECU, the smaller is that currency's deviation from its central rate for the ECU (which has been pulled in one direction or another by this

Table 4 EMS European Currency Unit Rates

	ECU central rates	Currency amounts against ECU September 30	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian franc	44.9008	45.8906	+2.20	+1.56	±1.5447
Danish krone	8.14104	8.16621	+0.31	-0.20	±1.6425
German D. Mark	2.24184	2.26145	+0.87	+0.36	±1.0642
French franc	6.87456	6.86984	-0.07	-0.58	±1.4052
Dutch guilder	2.52595	2.52828	+0.09	-0.42	±1.4964
Irish punt	0.72569	0.72552	-0.02	-0.53	±1.6699
Italian lira	1403.49	1370.27	-2.37	-2.37	±4.1506

Note: Changes are for ECU, therefore positive change denotes a weak currency. Adjustment calculated by *The Financial Times*.

large currency) and therefore the narrower are the defined divergence limits in the table. For example, the divergence limits of the DM are plus/minus 1.0642%, while those for the Irish pound, which has a weight of only 1.1% in the ECU, are plus/minus 1.6699%. The latter figure is little different from the 75% of the full 2.25% divergence, which illustrates the very small degree to which changes in the Irish currency affect the ECU itself.

Two other points should be noted about the operation of the divergence indicator: (i) the divergence limits for the IL of plus/minus 4.1505% reflect the wider margin of plus/minus 6% granted to Italy; and (ii) these movements of the IL outside the plus/minus 2.25% bilateral limits available to all the other EMS members and the fact that Sterling is part of the ECU (it remains outside the exchange rate arrangement, hence it may, as indeed it has done, move in a wider range against the currencies of the EMS—see below) creates further potential distortions of ECU values of other member currencies. These are eliminated by calculating an adjusted divergence figure of a currency from its central ECU, which ignores the effects of any bilateral fluctuations greater than 2.25% on either side of the parity. In effect, in this adjusted figure, the wider fluctuations of the IL and Sterling are sifted out. This is illustrated in Table 4, in which column 3 shows the percentage deviation of each currency from its central rate, while in column 4, this figure is adjusted for the excess fluctuations of the IL and Sterling. In this example from the end of September 1983, this adjustment reduces the divergence of the Belgian franc somewhat, but it still remains outside its divergence limits at that time.

Once any currency has crossed its 75% divergence indicator, corrective action is assumed to be taken by the authorities. This may consist of: (i) diversified intervention, i.e. involving more than one other currency; (ii) changes in central rates; (iii) measures regarding domestic monetary policy; and (iv) other economic policy measures.

As a result of such actions, it is assumed that the divergent currency will move back within its divergence limits which may (if the option of a change in a currency's central rate was chosen as one of the policy responses) be newly-defined limits.

In addition to the complex operation of the divergence indicator and the problems caused by excessive fluctuations of the IL and Sterling, some

other points pertaining to this aspect of the EMS should be given brief mention:

- (a) Despite the planned dovetailing of the parity grid with the divergence indicator, it is possible for the limits of the grid to be breached *before* and divergence indicator warning is sounded. This may happen, for example, when two currencies are moving strongly in opposite directions while the remaining currencies in the system are fairly stable. Masera (1981) noted that this occurred soon after the establishment of the EMS in 1979 when the Belgian franc and the DK moved beyond their permissible bilateral margins without any triggering of the divergence indicator. Such a possibility immediately reduces the operational value of the divergence indicator.
- (b) While the divergence indicator when breached is presumed to lead to policy responses such as those listed above, such actions are not mandatory.
- (c) Stability in the system would be enhanced if exchange market intervention were to occur in significant amounts before the indicator is breached; not simply when the event happens.

The EMCF and the EMF

An important institutional element of the EMS was the proposed transformation of the EMCF into the EMF with its related credit mechanisms. It was planned that the 'second stage' of the scheme—the creation of the EMF and the full use of the ECU as a reserve asset and means of settlement—would be achieved within two years of the commencement of the exchange rate arrangement. In reality, the worsening economic climate and some disagreement regarding the most appropriate path for completing this institutional reform have led to this phase being delayed, as it still is. However, the EMCF did receive, in April 1979, 20% of the value of each member's gold and foreign exchange reserves, and in return each member was credited with a corresponding amount of ECUs. These transactions were completed in the form of 3-month revolving 'swaps,' with final transfer of the funds to the EMCF to be made when the transitional phase was completed and the EMF is operative. These swaps were valued on the basis of certain formulae related to \$ and gold market values and at the beginning of the EMS they

stood at ECU 23 billion. Although the UK is outside the exchange rate arrangement, it contributed its 20% of gold and foreign currency reserves in July 1979. With this development, and the dramatic rise in the price of gold in 1980–81, the swaps at the EMCF reached a value of ECU 49.7 billion in April 1981 before falling to ECU 41.9 billion at the end of 1982—see Ungerer *et al.* (1983).

With these funds, the EMCF administers three separate types of credit mechanism: (i) the very short-term financing facility, for 45 days, which was operational under the 'snake' was to be continued, and, in principle, the volume of such short-term support was unlimited; (ii) some short-term support to the value of ECU 24 billion with a maturity of 9 months; and (iii) some medium-term financial assistance of ECU 11 billion was drawable for periods of between 2 to 5 years. This pool was much increased from the one in existence under the previous 'snake' arrangements. At the time of writing (January 1985), only the very short-term support, which is available only to members of the exchange rate regime (not to Greece or the UK) has been drawn. Above all, the relative lack of use of these credit facilities demonstrates 'the high volume of reserves held by EMS member countries and their access to international capital markets' (Dennis 1985).

Postscript

Two very recent developments concerning the ECU should be mentioned:

(i) On 15 September 1984, the European Council decided, on a proposal from the EC Commission and after consulting the Monetary Committee of the Board of Governors of the EMCF, to revise the composition on the ECU. The revision was executed taking into consideration the underlying economic criteria and the need to ensure the smooth functioning of the markets, and to be consistent with the 1978 resolution that revisions should not, by themselves, modify the external value of the ECU nor alter the ECU central rates for the currencies participating in the exchange rate arrangement or the bilateral parities within the EMS.

Greece requested its inclusion in the ECU in this occasion, and the request was granted. The amounts of ECU member state currencies were fixed using the following coefficients:

The European Monetary Union and the European Monetary System

<u>Currency</u>		<u>Coefficient</u>
Deutsche Mark	(DM)	32.0
French Franc	(FF)	19.0
Sterling		15.0
Italian Lira	(IL)	10.2
Dutch Guilder	(HFL)	10.1
Belgian Franc	(BF)	8.2
Danish Krone	(DK)	2.7
Greek Drachma	(GD)	1.3
Irish Pound	(IRL)	1.2
Luxembourg Franc	(LF)	0.3

As a result, from 17 September 1984 the ECU was defined as the sum of the following currency amounts:

DM	0.719	IL	140	GD	1.15
FF	1.31	HFL	0.256	IRL	0.00871
£	0.0878	BF	3.71	LF	0.14
		DK	0.219		

From the same date, a national central rate of GD 87.4813 and £0.585992 for 1 ECU was set, which amounted to a small change in the Sterling value.

(ii) Although the West German authorities are opposed to the use of the ECU as a reserve currency, the ECU has been gaining a bigger share in the international financial markets. According to *The Economist* of 19 January 1985: 'International contracts, bank accounts and even travellers' cheques are now being denominated in ecus. The ecu has become the third most popular currency for international borrowing and lending operations after the dollar and the D-mark . . . Last month, the first ecu bond to be floated in America was launched successfully on the New York market. And . . . the Russians signed up for their first ecu credit with a group of western banks. So popular is the issue with the investors that the Soviet foreign trade bank, which is borrowing the money, has doubled the intended amount of the loan from 75 m to 150 m ecus.'

The Role of the ECU

Given its functions as 'numeraire' of the exchange rate system, as the basis of the divergence indicator, as a means of settlement for EC central banks and as a denominator of intervention, the ECU has pervaded most elements of the EMS that have been described. However, the ECU is still far from its full potential use, hence there is a great possibility for its future development, for example, even its recent impact on the international market could be much enhanced if a clearing system to smooth its daily trading is instituted; such a system will be needed if the ECU is to become a major and leading currency. As Dennis (1985) argues, two particularly important steps for the acceptability of the ECU would be: (i) the introduction of ECU *creation* by the EMF, when fully constituted, rather the current situation in which the EMCF is merely a recycling mechanism; and (ii) the use of the ECU as a fully-fledged means of payment. The former could be enhanced by the replacement of the revolving swaps at the EMCF with *permanent* transfers of funds and by the abolition of the clause stating that European central banks may limit the acceptance of ECUs in settlement of inter-central bank transactions to 50% of the total. The use of the ECU as a means of payment is much further off, but, as we have seen, its private use is increasing all the time—see Peeters (1982) for a thorough discussion of the developing role of the ECU and the EMCF.

Conclusion

The EMS, although it is superior over previous proposals, it is not *complete* monetary integration. It lacks the EC central bank (vested with the appropriate powers) and economic policies. Moreover, although the ECU has achieved a great deal of progress in its private capacity, it is still far from becoming an official reserve currency and the EMCF has not yet been transformed into the envisaged EMF. In short, the EMS is still short of its own Objectives and is no where near the envisaged EMU. 'At best, the EMS is a halfway house between gradualism and the big leap . . . and may well be potentially more unstable as a result. However, its creation was a genuine achievement and, in the degree of monetary integration involved, the system represented the best compromise that could be attained in the search for more exchange rate stability (Dennis 1985). Indeed, the UK has recently

realised that had it been a member of the exchange rate arrangement of the EMS, Sterling would not have dropped to such a bottom low against the US dollar, a fact which is clearly exemplified by the relative stability of the ECU and the currencies participating in the exchange-rate arrangement of the EMS.

References

- Cairncross, Sir Alec, *et al.* (1974) *Economic Policy for the European Community: the Way Forward* (London: Macmillan).
- Coffey, P. and Presley, J. (1971) *European Monetary Integration* (London: Macmillan).
- Corden, W. M. (1972) 'Monetary integration,' *Essays in International Finance*, no. 93, Princeton University.
- Corden, W. M. (1977) *Inflation, Exchange Rates and the World Economy*, Oxford University Press.
- De Grauwe, P. (1975) 'Conditions for monetary integration: a geometric interpretation,' *Weltwirtschaftliches Archiv*, vol. III.
- De Grauwe, P. and Peeters, T. (1969) 'The EMS, Europe and the Dollar,' *The Banker*, April.
- El-Agraa, A. M. (editor) (1980; 1985, second edition) *The Economics of the European Community* (Oxford: Philip Allan).
- El-Agraa, A. M. and Jones, A. J. (1981) *Theory of Customs Unions* (Oxford: Philip Allan).
- Fleming, J. M. (1971) 'On exchange rate unification,' *Economic Journal*, vol. 81.
- Friedman, M. (1975) *Unemployment versus Inflation?: An Evaluation of the Phillips Curve* (London: Institute of Economic Affairs).
- Giersch, H. *et al.* (1975) 'All Saints Day manifesto,' *The Economist*.
- Ingram, J. C. (1973) 'The case for European monetary integration,' *Essays in International Finance*, no. 98, Princeton University.
- Jenkins, R. (1977) 'Europe's present challenge and future opportunity,' *Bulletin of the European Communities*, vol. 10.
- Jenkins, R. (1978) 'European Monetary Union,' *Lloyds Bank Review*, January.
- Johnson, H. G. (1973) 'Problems of European Monetary Union,' in M. B. Krauss (editor) *The Economics of Integration* (London: Allen & Unwin).
- Krause, L. B. and Salant, W. S. (editors) (1973a) *European Economic Integration and the United States* (Washington, D.C.: The Brookings Institution).
- Krause, L. B. and Salant, W. S. (editors) (1973b) *European Monetary Unification and its Meaning for the United States* (Washington, D.C.: The Brookings Institution).
- Magnifico, G. and Williamson, J. (1972) *European Monetary Integration* (London: Federal Trust).
- Marjolin Report (1975) *Report of the Study Group 'Economic and Monetary Union 1980'*

- (Brussels: Commission of the European Communities).
- Masera, R. (1981) 'The first two years of the EMS: the exchange rate experience,' *Banca Nazionale del Lavoro Review*, September.
- Maede, J. E. (1973) 'The balance-of-payments problems of a European free-trade area,' i. M. B. Krauss (editor) *The Economics of Integration* (London: Allen & Unwin).
- Phelps, E. S. (1968) 'Money-wage dynamics and labour market equilibrium,' *Journal of Political Economy*, vol. 76.
- Phillips, A. W. (1958) 'The relation between unemployment and the rate of change of money wages in the United Kingdom 1862-1957,' *Economica*, vol. 25.
- Robson, P. (1984, second edition) *The Economics of International Integration* (London: Allen & Unwin).
- Sumner, M. T. and Zis, G. (editors) (1982) *European Monetary Union: Progress and Prospects* (London: Macmillan).
- Tinbergen, J. (1952) *On the Theory of Economic Policy* (Amsterdam: North-Holland).
- Tindemans, L. (1976) 'European Union,' *Bulletin of the European Communities*, Supplement, vol. 9.
- Ungerer, H., Evans, O. and Nyberg, P. (1983) 'The European Monetary System: the experience, 1979-82,' *International Monetary Fund Occasional Papers*, no. 19, May.
- Werner Report (1970) 'Report to the Council and the Commission in the realisation by stages of economic and monetary union in the Community,' *Bulletin of the European Communities*, Supplement, no. 11.