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Private ECUs: Unhappy Triad

by Peter Bofinger, Stuttgart*

The growing use of the European Currency Unit (ECU) in private transactions is often expected to produce a decisive impetus towards monetary integration within Europe. On the other hand, critics warn of the monetary risks of increased private use of the ECU. What are the opportunities and risks associated with the ECU? Is the importance of the ECU exaggerated at present?

For two years now the European Currency Unit (ECU) has been arousing interest among a far wider public than the narrow circle of monetary theoreticians and policymakers. The many publications on the subject have as a result that the importance accorded to the ECU on paper now bears no relation to the unit's actual economic significance. This was already true of the so-called "official ECU", which was declared to be "the pivot of the European Monetary System" in the European Council's decision on the EMS in December 1978, even though it was already clear that the intervention points for operating this system of fixed exchange rates were to be expressed in national currency units, not ECUs. The tendency to exaggerate is most evident, however, in the discussion on the private ECU, and especially in the following three areas:

- most publications grossly overestimate the present scale of ECU use by private market participants;
- assessments of the chances of the ECU developing into a parallel European currency and hence possibly becoming a central instrument of monetary integration within Europe are excessively sanguine, not least owing to superficial analysis of market trends;
- that being the case, the monetary risks of unrestricted private use of the ECU are not infrequently portrayed in a too pessimistic light.

This article will carry out a strictly economic analysis of the entire issue of the private use of the ECU from these three viewpoints.

If a completely impartial layman asked what was the special quality of the ECU, one would probably be reduced to citing the great success of the ECU in private

markets, possibly also implying that what was perceived to be good by private market participants had to be beneficial for economic policy too. Indeed, with its market share of 5.2% (1985), the ECU is now the third most important issue currency in the Euro-bond market, after the US dollar and the Deutsche Mark (see Table 1), a particularly remarkable achievement if one considers that ECU-denominated bonds did not appear in the market until 1981.¹

Though accurate, this figure gives a distorted picture of the use of the ECU by private issuers of bonds, since the OECD's aggregated statistics on the Euro-capital market do not indicate which actual borrowers chose to borrow in ECUs. This information is to be found in the highly informative issues of the ECU-Newsletter. The list of individual ECU bond issuers reveals a very surprising fact: in 1985 14% of all the ECU bond issues described as "private" were for EC institutions or other European and international institutions; between 1981 and 1985 the proportion was as high as 19%. The Republic of Italy accounted for around one-quarter of ECU issues in 1985 and around 15% was for French borrowers, predominantly major state-owned banks. Hence at least half of the ECU bond issues classified as private in 1985 were by borrowers who opted to denominate their debt in ECUs not solely because it offered particular economic advantages but undoubtedly also because of their declared political desire to promote the role of the ECU wherever possible.

One can only speculate as to the market share that the ECU would have achieved if it had not been given such assistance during the start-up phase, including some degree of preferential treatment under national exchange controls. True, it must be conceded that the

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¹ It should not be entirely forgotten, however, that between 1973 and 1975 basket currency units (EUA, Eurco, SDR) had a market share of as much as 6%, although at that time the volume of these markets was still relatively small.

bulk of the ECU issues has been taken up by private investors, but the detailed analysis of the issuers puts reports on the remarkable dynamic performance of the so-called private ECU into perspective.

The Role of the ECU

The quantitative importance of the ECU in private markets is further exaggerated by the fact that the statistics chosen to illustrate its strengthened position generally relate solely to the international sectors of the money and capital markets, which gives a false overall impression if these are an integral part of a wider market. It is therefore advisable to take into consideration at least the market in Euro-bonds, that is to say bonds placed in a foreign currency in a particular country by an international banking syndicate, in conjunction with the market in "traditional foreign bonds", in other words bonds marketed by a national banking syndicate in the national currency of the country in which it is placed. In the statistics, these two market sectors are combined to form an aggregate incorporating all international bonds. Here the ECU has a share of only 4.2% and comes fifth behind the dollar, the Swiss franc, the yen and the Deutsche Mark. Furthermore, as far as countries with open financial markets are concerned, it must also be assumed that a borrower

- can choose not only a foreign currency or the ECU but also his national currency as the currency of issue, and
- sees not only the Euro-bond market and the market for foreign bonds but also the domestic capital market as a relevant option when deciding the market of issue. Hence, the ECU's "true" market share can be calculated only by including all national bond markets. Given the great volume of these markets, its share would be negligible.

The impressive growth in bank claims and liabilities denominated in ECUs also encourages overestimation of the ECU's role. In 1985 such claims grew by 56%, only slightly slower than the even more dynamic rise of 71% in Euro-yen claims.² Disproportionately high growth rates are not unusual for "newcomers" in the first few years, however. At the end of 1985 the ECU accounted for only 3.1% of banks' foreign currency claims. If this portion of international banking business is widened by including foreign claims in the national currency of the reporting banks, the ECU's market share falls to 1.9%, placing the unit in sixth place behind the pound sterling. However, bank claims and liabilities in ECUs are not an entirely suitable yardstick for assessing the unit's prospects of developing as a payment instrument and investment currency for non-banks, since a substantial proportion consists of interbank operations. The ECU deposits of non-banks from EC countries came to a mere \$ 5 billion at the end of 1985, an insignificant amount in relation to the money supply of around \$ 1,200 billion in the EC.

Invoicing of Foreign Trade in ECUs

The use of the ECU as a currency for invoicing foreign trade has also been greatly overestimated. Speculation and surmise knew no bounds, since no statistics were collected in this regard until very recently; now there is at least a rudimentary indication of the quantitative importance of the ECU in this area, thanks to the "Groupement pour la Coopération Monétaire Européenne", a group of banks that have set themselves the objective of promoting European integration and the ECU.³ In 1985 the group asked

² For greater detail, see Bank for International Settlements, Fifty-sixth Annual Report (1985-86).

³ Reproduced in ECU-Newsletter No. 15, January 1986, published by Istituto Bancario San Paolo di Torino.

Table 1
Percentage Market Shares of the ECU and other Currencies
(in 1985)

	Euro-bonds	International bonds	Euro-currency bank loans (December)	International bank credit (December)	Foreign trade invoicing in third currencies	Foreign trade invoicing overall
US dollar	71.2	60.8	67.6	63.3	67.4	.
Deutsche Mark	7.0	6.7	13.2	11.8	2.3	.
Yen	4.8	7.8	4.1	6.3	.	.
Swiss franc	-	9.0	6.6	6.0	.	.
ECU	5.2	4.2	3.1	1.9	0.8	0.3
Pound sterling	4.3	4.0	1.9	3.1	.	.
Other	7.5	7.5	3.5	7.5	29.5	.

Sources: OECD: Financial Statistics Monthly; BIS: International Banking and Financial Market Developments, May 1986; ECU-Newsletter, No. 15, January 1986.

numerous European companies to state the currencies they preferred for invoicing and financing foreign trade transactions. The majority of the 204 companies that responded were from France and Italy. Since the exchange controls applied by these two countries directly or indirectly encourage invoicing in ECUs,⁴ the results of the poll are probably biased in favour of the ECU. Nevertheless, the survey revealed that only 0.3% of the respondents' total foreign trade transactions was invoiced in ECUs. The ECU's share of foreign trade invoiced in foreign currencies is somewhat higher, 0.8%, but this does not alter the fact that ECU invoicing has been negligible so far. It should also be borne in mind that the ECU is promoted politically by the EC in this area too, since there is pressure for all major Community projects, for example, to be invoiced in ECUs.

If the statistics are examined more closely and an integrated view is taken of the money and capital markets, the market shares and rankings for the ECU in individual market sectors therefore lose some of their sparkle. It cannot be denied that the ECU has proved an important addition to the investment spectrum, particularly for banks and companies operating internationally, and that its specific economic advantages have played a role in this, especially the possibility of building up a diversified foreign currency position at relatively little transaction cost. On the other hand, however, it is impossible to ignore the fact that without the massive support it received from the EC Commission and from France and Italy the ECU would not have known anything like the expansion that is now being generally hailed as the extraordinary success of the unit. If the full circumstances are taken into account in assessing the private use of the ECU so far, the actual market developments behind the façade are not so impressive and one cannot conclude on these grounds alone that the ECU is at once the cornerstone and the crowning glory of all moves towards further monetary integration in Europe.

The ECU as a "Vehicle Currency"?

The picture of the chances of the ECU developing as a parallel European currency and hence serving as a central instrument of monetary integration painted here is therefore much more sober than is usual in most publications.⁵ The ECU's apparent success to date does not guarantee that it will be able to come to the fore in competition with European currencies; to assess its prospects adequately calls for analysis of the microeconomic processes of competition between the ECU and national currencies, based on the assumption

that all restrictions on the private use of the ECU and on the movement of private money and capital within Europe are removed.

Working on these assumptions, it has already been clearly shown that the ECU will not be able to drive out national currencies as a means of payment for domestic transactions, in either strong or weak currency countries of Europe.⁶

As a store of value, the ECU has certain advantages over other foreign currencies as far as the security of future payment flows is concerned, since the exchange rates of the currencies contained in the basket are fixed against one another (with the exception of the pound sterling and the drachma). In relation to the domestic currency, however, the ECU is a less secure investment currency, so that risk-averse investors will continue to prefer their national currency even if the ECU's interest rate premium is greater than the expected average devaluation of the unit. Hence, if the ECU is to make significant further progress, the stimulus must come mainly from growing ECU use for cross-border transactions.

For example, it is conceivable that the ECU might be used more widely as a currency of invoice and payment in European foreign trade. The theoretical basis for such a development is to be found in the literature on the "vehicle currency" theory. The main work in this connection is a study by Swoboda dating from 1968,⁷ which uses the traditional Baumol/Tobin demand-for-money model to demonstrate that from the point of view of saving transaction costs the optimum transaction balance for companies trading abroad would be held not in several currencies but in a single foreign currency. The advantages that this brings would be an incentive to invoice foreign trade transactions predominantly in the "vehicle currency".

This theory is highly plausible at first sight, but it has not been capable of empirical proof. It has been shown

⁴ See Peter Bofinger: Verstärkte private Verwendung der ECU: Hindernisse, Chancen, Risiken, in: Wirtschaftsdienst, 1984, No. 9, pp. 448-454.

⁵ See for example Jacques Delors: "Ce développement de l'ECU privé, il est spectaculaire", Discours au Parlement Européen (20. 2. 1986), p. 429; and Heinrich Mattes: Das Europäische Währungssystem und die ECU, in: Wird die ECU die Europäische Währung der Zukunft?, Schriftenreihe der Schweizerischen Vereinigung für Währungsfragen, No. 3, May 1986: "The ECU basket has a potential that far exceeds its role as a mere 'financial innovation'" (p. 15), and: "The importance of the ECU basket resides mainly in the fact that it promotes financial integration" (p. 21).

⁶ For details, see Peter Bofinger: Is an ECU Parallel Currency the Way to Achieve European Monetary Integration?, in: INTERECONOMICS, 1985, No. 5, pp. 222 ff., and Peter Bofinger: Währungswettbewerb, Cologne 1985, pp. 117 ff.

⁷ Alexander K. Swoboda: The Euro-Dollar Market: An Interpretation, Essays in International Finance, No. 64, Princeton 1968.

Table 2
Foreign Trade Invoicing in Various Currencies
(Percentages shares, 1979)

	Exports				Imports		
	Currency of exporter	US dollar overall	US dollar for exports outside USA (1976)	Other currencies	Currency of importer	US dollar	Other currencies
Belgium	44.2	12.5	10.3	43.3	28.4	23.4	48.2
Denmark	51.0	16.0	.	33.0	27.0	27.0	46.0
France	62.4	11.6	7.6	26.0	35.8	28.7	35.5
Germany	82.6	7.2	3.3	10.2	43.7	30.5	25.8
Italy (1976)	39.1	27.9	26.6	33.0	16.0	42.5	41.5
Netherlands	42.9	19.0	11.3	38.1	29.1	31.5	39.4
Japan (1976)	.	78.5	75.3

Source: Peter B. Kenen: *The Role of the Dollar as an International Currency*, Group of Thirty, Occasional Papers, No. 13, New York 1983.

that exporters generally manage to use their national currency for invoicing, even if it plays no other significant international role, and that the US dollar, which is the currency most likely to fulfil the role of "vehicle currency", accounts for less than 20 % of foreign trade invoicing in most countries⁸ (see Table 2); invoicing in dollars appears to be more prevalent only in the case of exports from Japan and the developing countries.

According to McKinnon, the predominant use of the domestic currency in the foreign trade of the industrialised countries is explained by the fact that the manufacturer of a heterogeneous industrial product has some pricing latitude that also enables him to invoice in his national currency.⁹ The advantages of this from the point of view of company planning explain the relatively high figures for export invoicing in national currency by industrialised countries. The developing countries, whose exports are dominated by (homogeneous) primary products, should be regarded as pure price takers with no option but to adapt to the daily and weekly fluctuations in raw materials prices expressed in dollars. Even if it were possible, invoicing in national currency would change little in this respect. The only aspect that is difficult to explain is the high prevalence of dollar invoicing in Japan's foreign trade; this may be a

hangover from the days when the country was still at the development stage. However, it should be borne in mind that all the statistics presented here are based on data for the period from 1976 to 1979, so that much may have changed in the meanwhile, especially in the case of Japan.

Little Empirical Relevance

In the current literature there is little disagreement over the view that the "vehicle currency" concept is not particularly appropriate for explaining the structure of foreign trade invoicing and the holding of cash balances by foreign trade companies.¹⁰ The main criticism of Swoboda's approach is that his model pays insufficient regard to the role of the banks in international payments. With an efficient network of international payments managed by the banking system firms have absolutely no need to keep payment balances themselves – be it in several foreign currencies or even in one. If this line of argument is applied to the future development of the ECU as a currency for foreign trade transactions at European or international level, there are good reasons for not taking too optimistic a view of its market prospects in this area, particularly as it would have to compete with the Deutsche Mark and the US dollar. The minor empirical relevance of the "vehicle currency" concept to foreign trade may also explain why the ECU has accounted for a negligible proportion of foreign trade invoicing, compared with the share of bond issues denominated in ECUs.

It is still possible, however, that the ECU might assume the role of a "vehicle currency" in the foreign exchange markets. More recent literature sees a distinct possibility that one international currency could achieve dominance in this field. For example, Chrystal has shown that transaction costs can be reduced if instead

⁸ This was first calculated by Grassmann with respect to Swedish foreign trade; see Sven Grassmann: *A Fundamental Symmetry in International Payments Patterns*, in: *Journal of International Economics*, May 1973, pp. 105 f.

⁹ See Ronald F. McKinnon: *Money in International Exchange*, New York and Oxford 1979, pp. 72 f.

¹⁰ A good overview is to be found in Henry Schäfer: *Begründungen einer internationalen Währung aus der Sicht der Geldtheorie*, in: *Geld und Währung*, Vol. 2 (1986), pp. 24-35. See also Stanley W. Black: *International Money and International Monetary Arrangements*, in: R. W. Jones, Peter B. Kenen (eds.): *Handbook of International Economics*, Vol. II, Amsterdam, New York and Oxford 1985, pp. 1153-1193.

of converting, say, Deutsche Mark directly into yen they are converted into US dollars and the dollars are then converted into yen.¹¹ It can be demonstrated that the increasing use of the indirect method reduces the transaction costs of converting the individual currency into the exchange medium, in turn leading to greater use of the technique, and so forth. At the end of this process one currency stands out as the "vehicle currency". In fact, foreign exchange dealing in the money centres of New York, London and Frankfurt are now carried out almost exclusively in the form of indirect exchange chains using the US dollar as the "vehicle currency".¹²

If the "vehicle currency" theory does prove valid in the field of foreign exchange trading, this does not mean that the ECU will automatically attain this status in the foreseeable future. On the contrary, the tendency for one currency to monopolise the market in view of the large economies of scale makes it rather unlikely that a very new currency unit can successfully dislodge the "natural" monopolist. Hence it is difficult to see how the

European Currency Unit can increase significantly in importance on its own merits in either domestic or international trading and financial transactions. The scope for the ECU itself to promote monetary integration in Europe therefore seems extremely limited, though it cannot be ruled out that continued political protection will allow it to gain further ground.

Monetary Risks

This assessment of the present quantitative importance of the ECU and forecast of its further growth potential shows that on the whole it poses little danger to national monetary policies. In this context one should bear in mind that the present asymmetries in the legal status of the ECU could result in problems for some of the smaller EC-countries. This is evidenced by a recent study by the Belgian central bank.¹³ The authors complain of the inconveniences that the increasing use of the ECU has created for the monetary policy of Belgium, especially by causing a tendency for considerable capital outflows. On the other hand, there is no indication that the abolition of all legal impediments to the unrestricted use of the ECU in the Federal Republic of Germany and the removal of existing exchange controls in the EC countries, which in many cases still completely forbid residents to acquire ECU balances and bonds, would generate such a national demand for ECUs that the monetary policy of any EC country would experience a qualitative change. In the

¹¹ Alec K. Chrystal: On the Theory of International Money, in: J. Black, G. S. Dorrance (eds.): Problems of International Finance, London and Basingstoke 1983, pp. 77-92.

¹² See also Peter B. Kenen: The Role of the Dollar as an International Currency, Group of Thirty, Occasional Papers, No. 13, New York 1983, p. 4.

¹³ Bulletin de la Banque Nationale de Belgique, Le développement de l'ECU privé et la politique monétaire, April 1986, pp. 3-32, especially p. 29.

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Richard Jaekel

DIE INTEGRATIONSWIRKUNG DES EUROPÄISCHEN WÄHRUNGSSYSTEMS (THE INTEGRATION EFFECT OF THE EUROPEAN MONETARY SYSTEM)

This study examines the effects of the exchange-rate policy practised since the coming into force of the EMS on trade relationships between the Federal Republic of Germany and selected EC countries. The empirical analysis focuses on the changes in bilateral exchange rates in the period 1979-82. The conclusion of the study is that omissions in exchange-rate policy have clearly led to a distortion of trade flows in Europe.

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V E R L A G W E L T A R C H I V G M B H - H A M B U R G

case of Germany, the liberalisation of the ECU would presumably mean ECU accounts being treated in the same way as foreign currency accounts, which are already permitted. These are fully subject to the minimum reserve requirements and have presented absolutely no problems for German monetary policy up to now.¹⁴

Nevertheless, it is of more than only academic interest to inquire into the risks for national monetary policy that would have to be faced if, contrary to expectations, national ECU accounts did increase substantially. A very systematic analysis of this kind was recently carried out by Helmut W. Mayer, a Manager of the Bank for International Settlements.¹⁵ Mayer, who himself describes his study as highly hypothetical, assumes that ECU-denominated loans and deposits already account for 20 % of the assets and liabilities of commercial banks in EC countries. He also assumes the absence of any restriction in the private use of ECUs at national or international level. In the sections that follow, the main results of the analysis are applied to the Federal Republic of Germany and examined critically.

Impact of a Currency Shift

In the first part of his study Mayer examines the monetary policy effects of a shift from bank deposits and loans denominated in national currency into ECU deposits and bank loans, in other words an accounting procedure that would not affect international capital flows. Such a change could cause problems for monetary policy if the minimum reserve requirement for ECU balances were lower than the rate for deposits in the national currency. If that were the case, the shift to ECU deposits would have an expansionary impact on liquidity, which would have undesired repercussions on macroeconomic aggregates. Even if the central bank were able to offset such effects – possibly by choosing a money supply target that included ECU balances – there would still be a problem, in that the banks' unstable voluntary reserves in respect of ECUs¹⁶ may cause the ratio of monetary base to the money supply to fluctuate more widely. This is a valid argument, but it has little relevance to Germany, since up to now foreign currency

deposits have been subject to the same rates of reserve requirement as DM positions, so that it can be assumed the ECU deposits would not be treated any differently if the restrictions on ECUs were liberalised. To this extent, shifts in the currency preference of German depositors in favour of the ECU would cause absolutely no problems from the point of view of monetary policy.

The situation would be different if residents switched to ECU accounts held not with a domestic bank subject to reserve requirements but with a bank in a country that did not impose requirements of this kind, such as Luxembourg or the United Kingdom.¹⁷ The use of such ECU accounts for domestic transactions would undoubtedly upset the Bundesbank's monetary policy, as the link between the domestic money supply and the growth in the production potential would be weakened. In Mayer's view, the only way to prevent such switching would be to introduce a uniform rate of reserve requirement on ECU accounts in all countries; however, there appears to be little likelihood of this being achieved in Europe, let alone on an international scale.

But does this prove that the use of the ECU could seriously jeopardise national monetary policy? Here I feel Mayer's analysis is too much oriented towards the phenomenon of the ECU. The outlined risks of this shift do not derive primarily from the fact that the sums in question are denominated in ECUs but simply from the fact that there has been a shift from the national market to the Euro-market, irrespective of the currency of the deposit. Denomination in ECUs could create additional risks only if the shift to ECU accounts entailed lower transaction costs than, say, those incurred on DM accounts, where individuals already have the option of holding their DM deposits in Luxembourg rather than Germany. Since the transaction costs of such a shift to the Euro-DM market are clearly so high at present that the bulk of DM deposits remain in Germany, there is no immediately plausible reason why ECU deposits should behave fundamentally differently.

Interest Rates and the Money Supply

Mayer – in accordance with Klotten¹⁸ – sees a further threat to monetary policy in that if the proportion of ECU loans and deposits were significant, a country wishing to achieve a restrictive stimulus would be obliged to raise interest rates on its national currency by more than would otherwise have been necessary. This relationship can be expressed by the following equation:

¹⁴ See also Peter-W. Schlüter: Die ECU als Devise, in: Commission of the European Communities, *Berichte und Informationen*, No. 8, 22nd May 1984, p. 7.

¹⁵ Helmut W. Mayer: Private ECUs, Potential Macro-Economic Policy Dimensions, BIS Economic Papers, No. 16 (April 1986). See also Norbert Klotten: The ECU: Prospects for Monetary Integration in Europe, in: *The World Today*, The Royal Institute of International Affairs, Vol. 41 (1985), pp. 179-183, especially pp. 181f.

¹⁶ The reserve ratio for ECU deposits must then be either nil or lower than the ratio for which the banks aim voluntarily.

¹⁷ Helmut W. Mayer, *op. cit.*, p. 7.

¹⁸ Helmut W. Mayer, *op. cit.*, p. 9; Norbert Klotten, *op. cit.*, p. 181.

$$i = (1-\alpha) i_{DM} + \alpha \cdot i_{ECU} \quad (1)$$

In simplified terms, the domestic interest rate (i) is obtained as the weighted arithmetic average of the DM interest rate (i_{DM}) and the ECU interest rate (i_{ECU}), weighted according to their share of total domestic deposits ($1-\alpha$ and α respectively).

$$i_{ECU} = \beta \cdot i_{DM} + (1-\beta) i_R \quad (2)$$

The ECU interest rate, in turn, is composed of the DM interest rate and the average of interest rates on the other currencies contained in the ECU currency basket (i_R), with the DM rate being weighted by the Mark's share in the basket (β). This then gives

$$i_{DM} = i \frac{1}{1-\alpha+\alpha\beta} - i_R \cdot \frac{(1-\beta)}{1-\alpha+\alpha\beta} \quad (3)$$

and

$$\frac{\delta i_{DM}}{\delta i} = \frac{1}{1-\alpha+\alpha\beta} \quad (4)$$

Inserting the concrete values of α (0.2 in Mayer) and β (DM share of the ECU currency basket = 0.33) produces a factor of 1.15. That means that if domestic interest rates were raised from 5 to 6%, for example, the Bundesbank would have to increase DM interest rates from 5 to 6.15%. With the Mark's high weight in the ECU currency basket, the interest rate implications of an ECU market share of even 20% would therefore be comparatively small. Even in a small ECU country such as Belgium, with the Belgian franc having a weight in the ECU basket of around 9%, the factor is not particularly high, working out to 1.22. Nevertheless, if the ECU were to assume growing importance, it is an open question which interest rate had the greater macroeconomic relevance, the domestic rate or the rate for the domestic currency. The impact of the ECU on national interest rate policies is also analysed in the study of the Belgian central bank. In view of the underlying assumptions (market share of the ECU = 100%; no parity changes within the EMS) it is not surprising that leeway for autonomous national interest rate policies is regarded as non-existent.¹⁹ But this result of the study is not primarily the consequence of an increased use of the ECU. It is the logical by-product of any exchange rate system with absolutely fixed exchange rates.

If major changes are made in central rates within the EMS there is also the problem that the Deutsche Mark equivalent of the money supply composed of the Deutsche Mark and the ECU would change.²⁰ Working on the basis of the largest annual average change in the value of the ECU against the Mark so far (-5.5% in

1982), the change in the value of the German central-bank money supply is very modest, since this aggregate is composed half of cash and half of minimum reserves and only the minimum reserve component would be affected by the parity change. Assuming that the ECU accounts for 20% of total assets subject to reserve requirements, the contraction in the central-bank money supply works out mathematically to 0.55%, which should not pose great difficulties in view of the width of the target range. If the banks were required to hold reserves in Deutsche Mark in respect of ECU deposits, a revaluation of the Mark would also lead to a slight easing of liquidity, but this could be offset at any time by monetary fine-tuning.

Overall, the monetary policy risks deduced by Mayer that would stem from a pure shift from DM accounts and loans to ECU accounts and loans do not in themselves appear to present any insurmountable problem for monetary policy, at least as far as the Federal Republic of Germany is concerned.

Destabilising Capital Movements?

In the second part of his study, Mayer sets out from the assumption that shifts from national currencies into the ECU and vice versa are normally accompanied by inflows and outflows of capital. His central finding is scarcely favourable to the ECU: if there were a well developed and generally accessible ECU market, the EMS would degenerate into a state of "almost permanent disequilibrium", with destabilising capital flows between the EC member countries²¹ "becoming an endemic feature of the EMS as long as substantial differences in inflation rates remained between member countries". Mayer is thinking here mainly of the periods in which markets expect a realignment of EMS central rates, so that short-term expectations of exchange rate changes can no longer be offset by widening national interest rate differentials.

The question is whether this deduction truly depicts the relationships within an exchange rate system such as the EMS, which has hitherto escaped any serious exchange crises. Moreover, it must be explained why the existence of a well developed ECU market should generate destabilising capital flows on a greater scale than in a situation of complete freedom to transfer capital and to hold foreign currency accounts denominated in national currencies. Mayer assumes that if the ECU market sector were substantial, capital flows would react more strongly than previously to

¹⁹ Bulletin de la Banque Nationale Belgique, op. cit., pp. 17ff.

²⁰ Helmut W. Mayer, op. cit., p. 8.

²¹ Helmut W. Mayer, op. cit., p. 17.

interest rate differentials and expectations of exchange rate changes.²² However, this assessment would appear valid only if the European countries gave priority to liberalising capital flows denominated in ECUs but kept exchange controls of various kinds in place for other currencies. As things stand at present, such a development appears unlikely, as the German Government for one links ECU liberalisation very closely with the removal of controls on capital transactions in the other European countries. Substantial progress in this field has been made in the last months.²³

With complete freedom for all financial transactions within Europe, speculative inflows and outflows of capital will be a continual problem if political convergence is lacking. There is no indication that increased use of the ECU could create additional instability. To that extent, the adverse effects of a broader ECU market that Mayer deduces are not peculiar to this currency unit; they are associated with any liberalisation of capital markets that is not flanked by corresponding economic co-operation.

Uncontrolled ECU Money Creation?

The question of the potential for autonomous money creation within the ECU system is linked closely with the problems of the Euro-markets. It is a relatively easy question to answer as far as ECU deposits subject to reserve requirements and held by domestic banks are concerned. Here the credit multiplier is far smaller than for DM deposits, as in 80% of payments the recipient requires payment in Deutsche Mark – according to the assumption of Mayer – so that the ECU deposit must then be converted into national currency. The multiplier for ECU money creation therefore includes a “giro balances coefficient” for national currencies in place of the usual cash balances coefficient.²⁴

The situation is more difficult in the case of ECU deposits in the Euro-markets, where no reserves have to be held. If the banks' voluntary ECU reserves in the form

of working balances are lower than the minimum reserves required of domestic banks, as is probable, the ECU money creation multiplier is correspondingly greater. However, because the “giro balances coefficient” is very high, the multiplier is still much lower than for deposits in national currency. Using Mayer's assumption that the ECU accounts for 20% of deposits, the multiplier of ECU money creation (as a result of an inflow of deposits denominated in national currency into the ECU circuit) works out at 5/4; the traditional multiplier formula for the national money supply (in respect of an inflow of central-bank money) gives a multiplier of about 5, assuming a reserve requirement of 10% and a cash balances coefficient of 0.1.

All in all, scrutiny of Mayer's analysis as well as of the study of the Belgian central bank shows that even increased ECU use will not create specific monetary policy risks if it is integrated in a process of general liberalisation of European capital markets. The main problem areas should certainly be taken seriously, but they prove to be a challenge to monetary policy that has nothing to do with the ECU:

□ monetary policy can already not avoid adapting its armoury to changed market circumstances, given that the Euro-markets are subject to no minimum reserve requirements;

□ speculative capital movements within an adjustable-peg system like the EMS are already making exceptional demands on liquidity management by central banks. If the liberalisation of the European financial markets now being promoted by the EC Commission is not flanked by co-ordination of national economic policies, these problems will grow more acute, even if the sums held for speculative purposes are not denominated in ECUs.

As things stand at present, there is no indication that these dangers will be further exacerbated by a broader ECU market.

If developments to date and the prospects and risks associated with private ECUs are viewed as a whole, there seems to be as little cause for euphoria as for excessive scepticism. Perhaps it is not such a bad idea to apply the rather vague label “financial innovation”²⁵ to the ECU and thus to stress its specific function as an instrument for improving resource allocation in the money and capital markets, without evoking associations that far exceed the unit's economic potential.

²² Helmut W. Mayer, *op. cit.*, pp. 18 ff. Mayer justifies this on the grounds that all economic agents are then able to transfer balances from an account in domestic currency to an ECU account at their domestic bank and vice versa. In the Federal Republic of Germany, where individuals have long enjoyed this option, this has caused no appreciable problems up to now, even during the period of the strong dollar. Complete liberalization of the European financial markets would have to provide this form of freedom in all EC countries not only for the ECU but also for all other currencies.

²³ E.g. the substantial easing of foreign exchange controls by the French government and the Commission's new programme for complete liberalisation of capital movements.

²⁴ See in this connection Norbert Kloten, *op. cit.*, p. 181; see also Helmut W. Mayer, *op. cit.*, pp. 23 f.

²⁵ See Peter Bofinger: Geldpolitik im Zeichen der sogenannten Finanzinnovation, in: Sparkasse, Vol. 103 (1986), p. 142.