On the Efficiency of Monetary Policy in the EMS*

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This article deals with the rôle of money policy in the EMS, i.e. international liquidity effects in the EMS and conceptions of monetary theory and monetary institutions in the EC, the importance of international capital movements and finally with the rôle of the US-Dollar, i.e. the influence of dollar-speculation on the parity grid in the EMS and the rôle of the US-Dollar as a Reserve Currency for EC-members.

Since the spring of 1979 the new monetary system EMS has been in operation in the member countries of the EC with the exception of Great Britain. The most important innovations in this monetary system are the introduction of the European currency unit ECU on central bank level, the exchange rate and intervention mechanism as well as the balances settlement and credit mechanism. Without entering into the details of these institutional features of the EMS, I shall attempt to analyse the efficiency of national money policies in the EMS, concentrating on the importance of international liquidity effects, conceptions of monetary theory and the monetary institutions in the EC, the importance of international capital movements and the rôle of the U.S. dollar.

I. Money Policy in the EMS

In principle it ought to be possible to proceed on the assumption that the EMS does not involve any new approach to the question of international transmission mechanisms; after all, apart from a few restrictions, there are fixed exchange rates within the EMS and floating exchange rates between the EMS and non-member-states. Nevertheless, there are a number of institutional facts and burdens which have been inherited from the past and which give rise to problems.

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1. International Liquidity Effects in the EMS

If the exchange rate between two currencies touches one of the intervention points determined by the fluctuation margins, the central banks which are directly affected are obligated to intervene to an unlimited extent in EMS partners' currencies. Thus the central banks concerned are obligated to intervene by offering the "hard" currency in both countries while at the same time bidding for the "soft" currency. Concurrently one of the two central banks acquires a claim in ECU on the other at the Fund for European Monetary Cooperation (FECOM).

The inflation potential created thereby can be localized at two sources: the interventions by the two central banks — the creditor bank and the debtor bank — augment the international supply of the "hard" currency and at the same time reduce that of the "soft" currency. An obligatory repayment through the settlement of account balances will eliminate the created inflation potential only if and when it is accumulated in the creditor country or with the FECOM. This means that the Bundesbank, in order to be able to maintain its announced money supply target, would have to include the entire expected intervention potential in its money supply policy — not only its own intervention potential, but also that of the central banks of other EMS partners.

The higher the intervention potential is, the more the autonomy of the Bundesbank in matters of monetary policy is restricted; this autonomy is abolished if or when this intervention potential results in an increase in the domestic money supply in excess of the money supply targets announced by the central bank. Yet even where this is not the case, serious problems arise in connection with monetary policy since the date and the extent of the money supply increase are now determined by the commercial banks.

In the debtor country, however, this may result in the pursuance of an even more expansive policy aimed at forestalling a falling-off in employment and maintaining the soft currency reduced by interventions at the former internally effective level[1]. The FECOM balances which are to be redeemed in interventions are then financed by means of credit facilities. This would result in an adaptation of the money supply increase rates and therefore also the price level increase rates to the level of whichever state happened to be most expansive. Thus the EMS can only function if an asymmetric money policy[2] is pursued in the member states.

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[1] *Borchert/Ross* (1979).

[2] In this context money policy is defined as symmetrical when the money policy impulse in the countries affected is unidirectional. Symmetrical intervention, on the other hand, is to be understood as meaning that the

Yet even when an asymmetrical money policy is pursued, the system, by virtue of its features, remains inflationary. Suppose that the Bundesbank buys up a "soft currency"-sterling, for instance — in exchange for the "hard currency" D-marks[3]. In this case the Bundesbank channels domestic central bank money into the monetary circulation system, acquiring in exchange foreign currency in the form of money from English commercial banks. This is only good policy as long as the pound sterling can be regarded as a German currency reserve.

The additional German central bank money has a multiplicative effect on the German commercial bank money supply. In the balances settlement the sterling from the U.K. is converted into ECU at the FECOM, so that the effect of the German intervention is not felt in England for the time being.

In the balances settlement England has subsequently to repay her debt item at the FECOM primarily by means of creditor currency, that is by means of German currency in the form of money from German commercial banks; in addition, however, the dollar and gold reserves deposited at the FECOM would also have to be drawn on. At all events however, the upshot is that there is no subsequent reduction of the original increase in the German central bank money supply necessitated by the interventions. Thus interventions in the EMS are inherently inflationary!

A neutralization of the interventions in the form of an asymmetrical money policy would only be achievable if the English central bank were to offer open-market securities which could be purchased in English central bank currency and whose total volume would correspond to the amount of D-marks to be sold. It would also be possible to make general arrangements along these lines. Money-market securities made out in ECU could be placed at the disposal of the countries which are obliged to take foreign currency from the market through intervention[4]. However, precautionary measures would have to be taken to ensure that such open market securities made out in ECU would only be issued by the countries with an expansive money policy. This would be equivalent in effect to an asymmetrical open market policy.

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partner countries pursue the same course with regard to the intervention currency; this is the case when the Bundesbank as well as a partner central bank, for instance, both offer D-marks. This eventuates ex post in an asymmetrical national money policy. The aim of the EMS will be the implementation ex ante of a symmetrical money policy.

[3] This is a theoretical case, for at present England is not a member of the exchange rate system.

[4] *Filc* (1979).

2. Conceptions of Monetary Theory and Monetary Institutions in the E.C.

Various conceptions of monetary theory are observed in the member states of the EMS, and the institutional organization of the monetary authorities also varies from state to state. The autonomous central banks in West Germany and the Netherlands pursue a money supply policy, while the central banks in Belgium, France and Italy, which are more strongly influenced by the Government or the Treasury, pursue a bank-rate policy mainly determined by foreign trade as well as a minimum reserve policy adapted to the domestic economy. At the outset, Great Britain and France also pursued a predominantly interest-orientated money policy, but at present they show a growing tendency to adopt a money supply policy; here too, the central bank is the executive organ of the Treasury.

Hitherto there was a tendency, cum grano salis, to pursue an interest policy in cases where there were closer ties between the central bank and the Government, while a money supply policy was more customary in states where the central bank enjoyed a higher degree of autonomy. This alone makes it difficult to achieve a harmonious money policy in the EMS. Of course the problems involved are mainly questions of dosage; nonetheless they affect the development of the economic and currency system[5].

This question, however, is also closely related to the conception of monetary theory held by the authorities that are responsible for monetary policy: Keynesian policy tends to concentrate on influencing the stock of money denoted as M 1, while monetarist money policy tends to influence M 2 or M 3. This is not merely a question of empirical results.

Longer and medium term studies[6] have gone to show that in the E.C. states instruments of monetary policy are more frequently used to influence M 2 than M 1. Now such studies are inevitable accomplished over a period of several years, so that the influence of the trade cycle and consequently the relevance of M 1 do not receive sufficient attention. Over a relatively long period, of course, the wealth aspect comprised by M 2 in contrast to M 1 plays a rôle in relation to the national income.

This differentiation between M 1 and M 2 or M 3 may become progressively less significant in future, especially since there is a growing tendency — above all in the U.S.A. — to draw even cheques on

[5] *Willgerodt* (1972).
[6] *Fratianni/Nabli* (1979).

time deposits and savings deposits[7]. Should this trend continue, demand deposits will eventually disappear seeing that they yield no profit. This results in a weakening of signals which hitherto emanated shifts between time deposits or savings deposits and demand deposits and vice versa. The mere rate at which money circulates then throws light — ex post (!) — upon the course of the trade cycle. The trend towards the cashless society points in the same direction.

In reference to M 1 and M 2 or M 3 specialists in some cases also deliberate upon the question of whether in open economies a liquidity policy can be pursued more efficiently[8]. On a purely theoretical level, however, such considerations are futile in the light of the fact that a liquidity policy focuses on the liquidity potential which is still available in the commercial banks as a result of foreign exchange movements while a money supply policy focuses on the potential in the commercial banks which has already been exhausted by these foreign exchange movements[9]. From the point of view of money policy, though, this is highly significant: thus money supply policy focuses on actual activities in the private sector, while liquidity policy focuses on potential activities. Liquidity policy and money supply policy are therefore two sides of the same medal.

For all that, in view of the different forms of institutional organization in the monetary sphere within the E.C. states it is difficult to reach an agreement on a uniform, i.e. harmonized money policy. And even if this aim is achieved, the use of the instruments will become a problem in view of the fact that concentration on different instruments within a monetary union gives rise to structural distortions.

II. The Importance of Capital Movements

As a rule, Keynesian models of open economies focus on the well-known LM-IS diagram, thereby disregarding with the same regularity the influence of the transfer of assets through capital movements[10]. Admittedly it is assumed, for instance, that by interest-induced capital movements monetary capital is transferred to other countries or vice versa; however, at the same time no attention is paid to the capital wealth effect resulting from the investment of monetary capital abroad — in securities, for instance. In the Keynesian theory an interest-induced capital export and the concomitant increase in financial

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7 *Tsiang* (1979).
8 *Polak/Argy* (1971), *Day* (1979).
9 *Borchert* (1978).
10 *Borchert* (1980 a, b, c).

security capital are bound to produce a shift of the liquidity preference curve. This applies both to fixed and floating exchange rates.

Even in more recent articles, in passages dealing with disaggregation in supply and demand curves in securities markets at home and abroad, arguments are based merely on the quantities of flow[11] while the stock is ignored[12]. However, the influence of a change in the stock of assets on the demand for money is obvious, for a money supply expansion resulting from an open market policy or fiat money must have a number of different effects on the level of interest or the prices of securities.

Now as long as a foreign trade equilibrium is defined as a null balance of the entire balance of payments, the balance of goods and services and the capital transactions balance need not be squared. However, an unsquared capital transactions balance always means changes in the national stock of assets and thus a continuous modification of the liquidity preference curve or the money demand curve for which, after all, a given security stock is implied. Thus foreign trade equilibrium means that both the balance of goods and services and the capital transactions balance must show a null balance.

This has some quite definite effects on international transmission mechanisms in money policy. These effects apply to the fixed exchange rates as well as the floating exchange rate system. The effects here referred to are nothing specifically new in the EMS, but particularly in recent years they have acquired a certain theoretical importance, so that they now apply to the EMS in a new way.

Suppose that the E.C. pursues a harmonized monetary policy that is comparatively restrictive towards the rest of the world. Even with floating exchange rates, this leads to an interest arbitrage with capital imports into the EMS. Although this relatively restrictive course in money policy is transferred unidirectionally to foreign states, it also leads to a transfer of assets to foreigners; importers of capital acquire bonded assets within the EMS. Thus states with a restrictive monetary policy invariably transfer domestic assets to foreigners, particularly in cases where the bonded assets bear interest that is transferred to the states in which the holders of the assets are resident. In the case of the EMS this therefore means that European assets in the form of securities may be transferred to the U.S.A., Japan or the oil-exporting countries.

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[11] This does not apply to exponents of the monetarist doctrine such as Dornbusch and Kouri, who take the line that the exchange-rate is mainly determined by the portfolio equilibrium and consider the capital transactions balance as dependent on considerations relating to the quantities of flow. On this subject see *Purvis* (1979).

[12] *Mc Kinnon* (1979).

Within the EMS with fixed exchange rates the situation looks much the same in the long-term equilibrium. In economies of approximately the same magnitude a contingent restrictive money policy in one particular country such as West Germany can lead to a stock modification in the new long-term equilibrium corresponding to the international production structure. With fixed exchange rates considerable importance here accrues to the dynamic foreign trade theory with its influence on the growth of capital stock.

Yet even now both the national balance of goods and services and the balance of capital transactions must be squared; and this means that the real economic sphere is once more influenced by monetary changes.

Now, however, the distribution of the entire EMS money supply among the member countries becomes a problem. Yet portfolio considerations offer a solution. Thus here too there is a redistribution of assets to the debit of countries that are relatively stability orientated, though to a much greater extent than with floating exchange rates; nevertheless, in this case the balancing effect of free exchange rates is, of course, absent.

The consequences for West Germany are as follows. With fixed exchange rates within the EMS and a continued pursuance of a stability-orientated money policy, West Germany's bonded asset stock will be sold to a much greater extent to EMS countries than to non-EMS countries because they are performing floating exchange rates. This means that German securities are not only diverted from non-EMS members to member states, but also transferred to an increasing extent to foreigners in general. With a persistent discrepancy in the national money policies this could, theoretically, lead to a constant decrease in the amount of security assets held by German nationals.

The only way to avoid this would be to admit a two-tier exchange rate — a fixed one for transactions relating to the balance of goods and services, and a floating one for capital movements. This would obviate international transfers of assets by capital movements[13]. In such a system, of course, exogenous impulses would cause rates of exchange and interest to yo-yo unrestrainedly, and with investments dependent on interest rates, such enormous fluctuations could have a serious effect on national income. In this case the international interest rates need not be adjusted to the same level, even where there is an equilibrium in the foreign trade sector.

[13] *Peregrim Marion* (1979).

III. The Role of the Dollar in the EMS

In principle two aspects are mentioned in connection with the dollar problem. These two features permit the dollar to play a rôle even in a currency area outwarding protected by floating exchange rates. In some cases the dollar surplus which still exists today in Western Europe is even regarded as a demolition charge in the EMS. The first feature is the possibility that roving Eurodollars may give rise to distortions in the system as a result of speculation involving one particular currency; the second feature, however, is the institutional relation of the FECOM's currency reserves, the official holding of U.S. dollars as a reserve currency.

1. The Influence of Dollar Speculation

Suppose that there is a dollar speculation involving conversion into D-marks and thus resulting in the D-mark being upvalued against the dollar. In this case, ceteris paribus, there would in the first instance also be a tendency for the D-mark to be upvalued against all the other EMS currencies. In a system of fixed exchange rates, however, an arbitrage will now set in at once; in this arbitrage dollar bidders will bid for non-D-mark member currencies at the old rate in order to obtain D-marks by conversion of these currencies and thus realize an arbitrage profit through the new D-mark-dollar rate. Thus a dollar speculation involving conversion into one of the member currencies cannot influence the EMS parity grid by arbitrage.

Of course this speculation does influence the balance of payments structure of the EMS member states. This influence, however, will only be exerted as long as and in such a manner that the balance of payments in the EMS countries will be brought into equilibrium. Thus dollar speculation functions at most as a catalyst for structural changes in the exchange rate and balance of payments system.

The realignment of the exchange rates can, however, still entail considerable frictional losses. For this reason, in some cases the creation of a substitution account is recommended in order to preclude continuous devaluations of the dollar — especially in the course of a possible shift from American to European liquidity investments. This kind of substitution account would serve to withdraw large amounts of dollars from the market, replacing them by debentures made out in SDRs — or possibly also in ECU[14]. If this process is effected through a fund (IMF or FECOM), the latter will be obliged to invest the dollar stock entrusted to its care in long-term securities with the U.S. Treasury Department.

[14] *Machlup* (1979).

No settlement, however, has as yet been reached as to who is to bear the foreign exchange risk for the U.S. dollars.

2. The Dollar as a Reserve Currency

The initial funds allocated to the FECOM consist of 20 % of the gold and U.S. dollar currency reserves in each of the members' central banks. The intention was obviously to establish the contribution of the FECOM member countries in accordance with their accumulated foreign trade success in the past.

Now these currency reserves in U.S. dollars are not only an anachronism from the period of the Bretton Woods system; they also have strange consequences. For instance, the currency reserves in U.S. dollars which the Bundesbank accumulated in the past have already produced a liquidity effect in Germany in as much as the central bank brought them up. In times to come the U.S. dollars placed at the disposal of the FECOM will produce a second liquidity effect within the framework of the balances settlement; this will be when potential positive balances will be paid off to the Bundesbank by ECU transfers, or directly by dollar transfers.

If each of the European central banks has to maintain 20 % of its monetary reserves at the FECOM, there may even be several domestic creations of currency through the dollar. This creation of currency, of course, is limited by the currency reserves of all the central banks which are members of the EMS.

It is therefore necessary to stave off the indirect influence of the U.S. dollar on the EMS. The only way to achieve this aim is to effect a complete severance of the EMS from the U.S. dollar. Once this step will have been taken, the value of the ECU will no longer be subject to external influences, i.e. in this case the value of the ECU will depend on the monetary policy of all the member countries as well as on the obligingness of the FECOM in allotting credit. In order to create a stabilizer here, we must either switch over once more to gold as a reserve medium[15] (exogenous stabilizer)[16], or else we shall have to install the ECU as the circulation currency of an autonomous FECOM (endogenous stabilizer); for "there would be a breakthrough if — at some time or other — a parallel currency were to develop on the basis of the ECU"[16].

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[15] This is more or less what the oil-producing countries are doing at the moment in as much as they now no longer invest their oil profits in dollars or Eurodollars, but in gold. It is interesting to note that the oil price as expressed in gold has hardly changed in recent years.

[16] *Kloten* refers to the possibility that the EMS may favour a remonetisation of gold, see *Kloten* (1979).

IV. The Political Position on the EMS

To come to the point right away: for all you may say, I'm in favour of the EMS. Theoretically, no doubt, there is much to be said against a monetary system of fixed exchange rates connected with the EMS; theoretically, as a matter of fact, there is everything to be said for floating exchange rates; yet another point must be taken into consideration — the general wish for European integration, the desire for a political union.

Even though at present there is no longer so much talk about this in public as in the early sixties, this desire for integration is still discernible in the development of certain structures in the European Community. Like these other entities, the EMS is not a structure evolved in the fast incubator; indeed, many of its components point to this fact. Its gestation can be traced back over a period of more than ten years, and it is still far from completion.

Yet if one accepts the goal of a monetary union it is in principle of no consequence whether one steers towards this goal by a predominantly economistic approach (first harmonization of money and fiscal policy leading inevitably to the establishment of a monetary union; the *culmination theory)* or by a predominantly monetarist approach (first an institutional regulation of the currency policy leading inevitably to a coordinated money and fiscal policy; the *foundation-stone-theory)*[17]. This is rather a question of practicability.

Furthermore, even if the EMS is fully realized, the development in the field of currency policy cannot be terminated. The path which leads to a political union with a uniform currency is fraught with tasks and problems. How long did it take to establish the mark as the only form of legal tender in the German Reich, and how long did it take to organize the Federal Reserve System in the U.S.A.? The EMS is a means to such an end.

Another question that merits consideration is whether the member countries of the EMS form an optimal currency area. One might attempt to apply the traditional theoretical formulations to the E.C.: the basic optimality criterion — mobility of the factors of production as envisaged by *Mundell,* and the additional optimality criteria proposed by other researchers — criteria which, in the Keynesian theory, are all subsumed under the term import propensity — criteria such as the degree of

[17] A clear distinction should be made between the economistic and monetarist concept of the currency theory and the fiscalist and monetarist concept of the money theory.

openness of an economy as conceived by *Kenen*, product diversification in the economy as conceived by *Ingram*, inflation rates as conceived by *Haberler* and *Fleming* and the substitutability of goods as conceived by *Salin;* in their present form, however, such formulations could not be applied directly to the actual situation in Western Europe with a view to enlisting support for the EMS or a partial grouping of states as an optimal currency area; perhaps the only feasible solution would be the degree of political integration criterion as conceived by *Ishiyama*[18], though this standard, on the other hand, does not really constitute an optimally criterion. As an alternative one could, of course, undertake a cost-utility analysis in reference to the EMS.

Summary

In principle no new theoretical approach to the question of international transmission mechanism and to that of the efficiency of monetary policy has to be introduced by the EMS. But there are institutional facts and burdens which have been inherited from the past and which give rise to new problems.

Such problems, for instance, occur due to the bilateral obligation to intervene in EMS-currencies, or due to dollar-speculation involving conversion into one of the member currencies, and finally due to international capital movements. The implications of these issues are discussed here, and a solution for the involved intervention problem is offered in rough lines.

Zusammenfassung

An sich stellt sich die Frage nach dem internationalen Transmissionsmechanismus und der Effizienz der Geldpolitik durch die Einführung des EWS nicht neu. Es sind jedoch institutionelle Fakten und Hypotheken aus der Vergangenheit, die neue Probleme aufwerfen.

Solche Probleme sind z. B. die bilaterale Verpflichtung der Mitgliedsländer, in EWS-Währungen zu intervenieren, oder aber die Dollarspekulation in eine einzelne EWS-Währung, und schließlich der internationale Kapitalverkehr. In groben Zügen werden hier die Implikationen dieser Hypothese diskutiert und eine Lösung des ungelösten Problems angeboten.

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