

The Contribution of the Ecu to Exchange-Rate Stability: A Comment

1. In a roughly twenty-five page article which appeared in this *Review* in 1986 ("The EMS and the International Monetary System: Towards Greater Stability"), I tried to sum up the lessons to be drawn from experience as regards the development of the EMS, both *qua* exchange-rate agreement and *qua* a potential monetary area based on a common standard, the Ecu, as well as some of the lines along which the international monetary system might evolve. This was just after the point at which, when the freely floating system had revealed all its limitations, agreements were being discussed and implemented such as the one arrived at in New York at the Plaza Hotel, designed to permit better control of exchange rates.

In making a positive assessment of the results achieved in the European Community by the monetary agreements of 13 March 1979, which, in my opinion, were meant to offer the public goods of exchange-rate stability and a European common monetary standard, I was careful not to draw the conclusion that these could easily be extended on a world-wide scale, since there was no equivalent momentum towards economic, juridical and political integration. I confined myself to suggesting a "target-zones" mechanism for which the rules of monetary behaviour would have had to be modified and adopted on a cooperative basis. Recent experience (from the autumn of 1987 to the winter of 1988) is there to show the concrete need for this type of evolution.

2. In my brief historical and institutional analysis of the way the EMS works, based, as readers are aware, on the two pillars of the exchange-rate agreement and a common monetary unit, I devoted a few, admittedly hasty remarks to the latter aspect, as regards not only its present state, but also what it could and ought to become.

That I took the Ecu more as an abstract monetary unit of the Community than as a basket of member states' currencies is made clear in particular in the short sub-section 3.3 and 3.4 in which I refer to the possibility of making the Ecu coincide with the Deutsche Mark or of having a supranational currency. Moreover, as far back as March 1981, I had expressed my dissatisfaction with the Ecu's basket structure and had called for its replacement by a monetary unit in the full sense of the word ("La Banca d'Italia e le prospettive di un mercato

finanziario in Euroscudi" published in 'Un Mercato Finanziario Italiano in Euroscudi', Trieste, 21 March 1981, *Quaderni dell'Istituto per gli Studi Assicurativi*, n. 34).

At the end of section 3.4, it so happened that I affirmed that: "In addition to the familiar problem of the Ecu being recognized as a currency by all member countries, there is still the issue of providing the Ecu and the EMS with a 'constitution', which would be used, not to replace the individual countries' existing monetary structures, but to create a parallel financial system at a European level. If the Ecu is able to discharge this function and at the same time to display its "quality" as a currency which is less subject to exchange-rate risk, even if it is not adopted as the only legal currency by member countries, it would take on the prerequisites for evolving into a reserve currency. *The establishment of the Ecu, in addition to providing a means of trade and investment, as an international reserve currency as well, would help in no small measure to create greater stability than exists in the present multipolar world*" (p. 382 - italics not in the text).

3. Professors Jager and De Jong of the University of Amsterdam in an elegant essay ("The private ECU's Potential Impact on Global and European Exchange-Rate Stability", in this Review, no. 164, pp. 35-59) argue against the last proposition of mine reproduced in italics in the previous paragraph. They assert that, since what is involved is a basket of currencies, arbitrage gives rise to a change in the value of the currencies composing it in the same direction as variations in the Ecu, which "induces divergent impacts on the major currencies in the world. In this way, it may undermine global exchange-rate stability". In addition, when, as the result of a temporary exogenous shock,¹ there is portfolio adjustment, the change in a currency's share in portfolios depends on the degree of substitutability as between the currencies composing them. The addition of the Ecu usually acts with different intensities on the various shares of the currencies concerned, both at the time when it is brought in and after the exogenous shock. The two writers in question, therefore, argue that "it is impossible to deduce a general conclusion with respect to the Ecu's effect on exchange-rate stability independent of empirical analysis".

To this end, they have made recourse to a "capital asset pricing model" (CAPM) using, for each country considered, actual yields, expressed in terms of the national currency and on a monthly basis, of investments in the currencies making up the international portfolio defined at the world level as a total of

¹ Jager and De Jong regard as an exogenous shock, too, the monetary policy of one of the member countries induced by the presence of the public Ecus, and, in particular, by the lack of an effective limit on the creation of private Ecus. It is worthwhile recalling that the severe limits imposed on the possibility to mobilize the former have only been gradually eased, and that it is widely believed, even by the monetary authorities, that the development of the latter does not constitute a greater danger for monetary control than the one formed by any Euromarket.

dollars, yen, Marks, sterling and Ecus, or, at the European level, as the total of the five currencies listed, plus the French and Belgian francs, the lira and the florin. From this empirical analysis, the authors draw the conclusion that, although the Ecu has a stabilizing influence on the relative shares in nine of the twelve comparisons carried out by them between currencies at the global level, the three situations of increased instability they have encountered, concerning the dollar-Mark,² dollar-yen and Mark-yen ratios, show the baselessness of my assertion that the development of the Ecu would substantially increase the stability of the present multipolar world.³

4. The objections to this criticism may be of various kinds. In the first place, I refer to the Ecu not only as an instrument for investment (and medium of exchange), but also as an international reserve currency, so that the context to which I am alluding is wider and more fully structured than the more restricted and homogeneous one chosen by Jager and De Jong. In addition, I speak of a contribution to greater stability than in the present multipolar world, using verbs in the conditional, and basing myself on the results of other studies available at that time (cf. Rainer S. Masera, "An increasing role for the Ecu: a character in search of a script", in *Essays in International Finance*, no. 187, June 1987, Princeton University).

In the second place, and on the specific ground of methodology used by Jager and De Jong, it should not be forgotten that the CAPM rests on the assumption, among others, that all individuals have homogeneous expectations. Only on that condition is it possible to affirm that the market portfolio is always efficient. Since, given heterogeneous expectations, that is not necessarily true, the "capital asset pricing model" becomes unverifiable empirically, since the only acceptable test is the one which at the same time tends to ascertain whether the market portfolio is efficient. Since it is at the very least doubtful whether operators all have the same information on the distribution of future exchange rate patterns, the assumption of homogeneity as regards expectations appears to be somewhat unrealistic. Hence, the analysis by Jager and De Jong, although refined, is not lacking in ambiguities which cannot but be reflected in their empirical results.

In addition, it should not be forgotten that the conclusions of the study are based on a range of information which cannot be regarded as particularly extensive, since it is formed of the quarterly yields, observed month by month, of investments effected in three periods of two or three years each; the

² According to the authors, the destabilizing effect of the Ecu in dollar-Mark relations appears even more strongly if the Dutch florin is used as *numéraire*.

³ It is relevant to recall that two of the three cases found of greater instability concern the passage from the first period (1976 IV - 1979 III) to the second one (1979 IV - 1981 III); the EMS agreements which definitely established the Ecu became operative in the first quarter of 1979 (13 March).

composition of the portfolios is therefore obtained on the basis of 24-36 observations.

Even if we were to admit that the data base is sufficient and that the portfolio tangential to the "capital market line" is really, the one which maximizes the market's utility function, we could even turn the article's reasoning round and maintain that the evidence submitted tends to rebut the hypothesis that instability is created by the Ecu. For the existence of ten out of twelve observations (including the one regarding the dollar-Mark ratio in the case of "no arbitrage") contradicting the instability hypothesis seems to be statistically sufficient to refute its validity with a reasonable degree of confidence.

5. My assertion which gave rise to this debate can be explained with a much more modest analytical apparatus. If it is assumed that the international currencies are essentially three (for example, the dollar, the Mark and the yen) and that an exogenous shock has a downward influence on expectations as regards one of these three, it follows that there will be a move to get out of the currency which is expected to depreciate and to go into the other two; today's spot exchange rate will be influenced by that move. If one of the two currencies to which this flow of funds is directed away from the one likely to be depreciated is a "small" one (for example, if the Deutsche Mark is replaced by the Swiss franc), reflecting a market, and especially an economy on a smaller scale and potential, it is to be expected that the move towards appreciation, as a result of the switch of funds, will prove to be much stronger for the "small" one than for the "big" one. There is no other way of explaining the aversion or the perplexity with which the issuing central bank views a more substantive international role being assumed by its "small" currency.

In the same way, if a "big" currency is replaced by a "bigger" one (for example, if the Ecu replaces the Mark), all other conditions being equal, the external shock cannot but give rise to a smaller rise in the exchange rate of the "bigger" currency than in the case of the "big" one, and, *a fortiori*, in that of the "small" one. And in this perspective it is unimportant whether the Ecu is formed from a basket of currencies or is a currency in the strict sense of the term. The fundamental condition is that it should be, even if imperfectly, a valid substitute for the currency whose depreciation is expected.

Roma

MARIO SARCINELLI