

Setting Conversion Rates for the Third Stage of EMU*

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1. Introduction

According to plans, the third stage of Monetary Union in Europe should start on 1 January 1999. After that date the exchange rates of the currencies of the participating countries will be irrevocably fixed, bilaterally and against the euro, the single European currency. The decision on these conversion rates will be taken some time between the day when the decision about membership is announced and the starting day of the third stage of EMU.

In this paper we shall examine how the irrevocably fixed conversion rates can be set. In the next Section we shall first recall the few provisions of the Maastricht Treaty on the conversion procedure. They say little and set only one precise constraint: that the conversion procedure should not alter the external value of the ecu,¹ which, as decided by the Madrid Council, will be converted one to one into the

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¹ For a discussion of the different possible interpretations of this constraint see Kenen (1995). We will interpret this to mean that the conversion on 1 January 1999 should not lead to a change in the *external* value of the ecu from its level reached at the close of 31 December 1998.

euro. We shall then examine the (very) wide set of options which are apparently available. In Section 3 we shall show that, if there are currencies in the ecu basket that do not participate to the single currency, a whole subset of that set is incompatible with the Treaty provision on the external value of the ecu: conversion rates of the participating currencies cannot be set in advance in terms of the ecu, nor can they be set at the last moment in terms of central ERM ecu rates, without affecting (except in two wholly implausible cases) the external value of the ecu. The only possibility of setting euro rates for the inside currencies is to adopt as conversion rates the market ecu rates of those currencies on the last day before the start of the third stage: we argue that this is economically undesirable. Fixing instead bilateral conversion rates (no matter when and how) and then accepting the market value of the ecu as the euro conversion rate restores a degree of freedom and is compatible with the constraint on the external value of the ecu, as we argue in Section 4. There we also show that one of the rules proposed for defining such rates – the so-called Lamfalussy rule – has undesirable consequences. Pre-announcing bilateral rates meets with two problems. First, market bilateral rates on the last day before the start of the third stage must have converged to the pre-announced rates in order to avoid a jump in the external value of the ecu. Second, a recent Council regulation on the legal framework for the use of the euro seems, if interpreted strictly, to rule out the possibility of fixing bilateral rates *and then* deriving the euro conversion rates: if this interpretation prevailed, the only undesirable choice left would be that of setting the euro conversion rates at the ecu market values on 31 December 1998. In Section 5 we propose a multi-stage solution to these two problems that is compatible with the Council regulation: announcement that the euro conversion rate will be set equal to the ecu market rate on the last day and a parallel agreement on the desired structure of bilateral rates (arguably the central EMS rates) of the inside currencies. In the interim period the market bilateral rates should be steered towards previously agreed upon values.

2. The Treaty and the options

2.1. *The Treaty*

The Maastricht Treaty states that: "At the starting date of the third stage [of Monetary Union], the Council shall, acting with the unanimity of the Member States without a derogation, on a proposal from the Commission and after consulting the ECB, adopt the conversion rates at which their currencies shall be irrevocably fixed and at which irrevocably fixed rate the ecu shall be substituted for these currencies, and the ecu will become a currency in its own right. This measure shall by itself not modify the external value of the ECU" (Article 109i (4)).

The Madrid European Council of December 1995 confirmed "unequivocally that [the third] stage will commence on 1 January 1999 [...] decided to name the single currency the 'Euro' [...] instead of the generic term 'ECU' used by the Treaty to refer to the European currency unit" and decided that "in the case of contracts denominated by reference to the official ECU basket of the European Community [...] substitution by the Euro will be at the rate one to one, unless otherwise provided by the contract". The Annex to the conclusions of the Madrid Council, on "the scenario for the change-over to the single currency", added that from 1 January 1999 "the Euro will be 'a currency in its own right' and the official ECU basket will cease to exist".

2.2. *The options*

No decision has been taken so far on how the irrevocable conversion rates of the currencies of the member states fulfilling the conditions for admission will be set. The choice spans over several dimensions, so that a wide number of options is apparently available.²

There is, first, a time dimension. By June 1998, at the latest, it will be known which member states are admitted to the third stage and hence for which currencies the irrevocable conversion rates are to

² For a useful description of some options see Arrowsmith (1996) and Gros and Lannoo (1996).

be fixed. Conversion rates can be pre-announced before the latter date, or be announced on the eve of the third stage. In the latter case a method for setting the rates at the last moment may or may not be pre-announced.

Second the conversion rates of the currencies of member states without a derogation, which from now on we shall call in-currencies, can be fixed bilaterally or in terms of the ecu. While fixed ecu rates imply a set of bilateral parities, the reverse is not true as long as there are currencies which are in the ecu basket but do not participate to the single currency.

A third dimension regards the choice of the conversion rates, be they bilateral or ecu rates. An obvious alternative is between central rates as defined in the exchange rate mechanism of the EMS, on the one hand, and, on the other, market rates, at the time of announcement, or on the last day before the irrevocable locking. Other possibilities are however conceivable and have been aired. The best known is the so-called Lamfalussy rule:³ the conversion rate should be computed in terms of an average of past or of past and future market rates. Other candidates are forward rates, in the case of pre-announcement;⁴ or pre-announced bilateral rates modified to take into account the interest rate differentials.

Even neglecting further distinctions arising from the possible behaviour of market participants – the pre-announced conversion rates may or may not be credible, the timing and the rule for setting the parities may or may not be expected – the combination of these three dimensions opens a very large number of options.

We shall see however that this *embarras de richesse* is to a large extent only apparent if, as is almost certain, some of the currencies entering into the ecu basket will not belong to the single currency from the start, because there are countries either not fulfilling the required conditions or having the right to opt out and deciding to do so.⁵ In the following Section we shall begin our pruning by showing that it is impossible to either pre-announce conversion rates in terms

³ Thus known as it was first put forward by the President of the European Monetary Institute.

⁴ The forward rate rule is discussed by Brookes (1996).

⁵ The fact that some currencies, like the Austrian shilling and the Finnish marka, which do not belong to the ecu basket because the latter was frozen by Article 109g of the Treaty, may instead participate to the single currency from the start is instead of no relevance.

of the ecu/euro or set euro conversion rates in terms of central ERM rates on 1 January 1999.

We shall neglect the problem arising from the fact that the value of the ecu computed from the basket does not coincide with the value of the private ecu quoted in the foreign exchange markets and shall refer only to the value of the official ecu, which coincides with its basket value.⁶

3. Setting conversion rates in terms of the ecu

We show in this Section that setting the euro conversion rates of the in-currencies in terms of the ecu is either technically impossible or economically undesirable.

3.1. A set of technically impossible solutions

a) Pre-announcing ecu conversion rates

Let T be the last day before the commencement of the third stage, when the parities of the currencies of the in-countries are irrevocably fixed against the euro, and hence bilaterally. Suppose that of the N currencies belonging to the ecu basket I are of in-countries while $N - I$ are of out-countries, not joining the single currency at the outset. We ask the following question: is it possible to announce the parities of the I currencies against the ecu (equal to one euro) at some time $t < T$, considering the constraint that the external value of the ecu at T should not be affected?

We denote by:

ecu_i the value of the ecu in terms of currency i ($i = 1, \dots, I$);
 α_j, α_k the amounts of currency j ($j = 1, \dots, I$) and of currency k ($k = I + 1, \dots, N$) in the ecu basket;

⁶ For some time the value of the private ecu in any given currency has been less than the value of the basket in that currency: the difference, which reached 250 basis points in the past, is now down to 40 basis points. A convincing explanation for the difference is provided in Folkerts-Landau and Garber (1995). See also Gonzalez-Pacheco and Steinherr (1996).

S_{ji} , S_{ki} the exchange rate of currency j ($j = 1, \dots, I$) and of currency k ($k = I + 1, \dots, N$) in terms, respectively, of currency i (units of currency i per unit of currency j and of currency k).

From the basket definition of the ecu we know that:

$$ecu_i = \sum_{j=1}^I \alpha_j S_{ji} + \sum_{k=I+1}^N \alpha_k S_{ki} \quad (1)$$

Is it possible that at time $t < T$ a fixed conversion rate into ecu_i^* , = $euro_i^*$ is announced for each of the $i = 1, \dots, I$ in-currencies?

Triangular arbitrage ensures that, by fixing the euro/ecu rates, the bilateral exchange rates for the in-currencies are also fixed, i.e.:

$$S_{ji}^* = \frac{ecu_i^*}{ecu_j^*} \quad (2)$$

Using (2) to rewrite (1) yields

$$ecu_i^* = \sum_{j=1}^I \alpha_j \frac{ecu_i^*}{ecu_j^*} + \sum_{k=I+1}^N \alpha_k S_{ki} \quad \text{or} \quad (3)$$

$$ecu_i^* \left(1 - \sum_{j=1}^I \alpha_j \frac{1}{ecu_j^*} \right) = \sum_{k=I+1}^N \alpha_k S_{ki} \quad (4)$$

for each in-currency $1, \dots, I$.

As can be seen from (4), the left-hand side of the equation is a constant, determined by the chosen euro rates. Hence also the right-hand side, which is the weighted exchange rate of the subset of out-currencies in the ecu against each in-currency, must be a constant. In other words, pre-fixing the euro rates of the in-currencies in advance of 1 January 1999 and guaranteeing the one-to-one conversion of ecus into euros requires that the weighted exchange rate of the subset of out-currencies with the in-currencies remains constant in the period between the announcement and the conversion. This can happen only in two cases: if all the outsiders decide to fix (unilaterally) their exchange rates with the insiders at the time of announce-

ment and are able to defend those rates; or if, by some fluke, the movements of the exchange rate of the out-currencies against the in-currencies are such as to exactly offset each other. We may be allowed to say that the probability of the first case is very small and that of the second is nil for all practical purposes. Barring these two cases, pre-fixing the in-currencies' conversion rates in terms of euro violates the requirement that the external value of the ecu should not be affected by the conversion procedure. In particular it would make the dollar value of ecu_i^* different from that of the ecu basket.

b) *Adopting central ecu rates at the start of the third stage and the Lamfalussy rule in terms of ecu rates*

A similar line of reasoning leads us to reject two more options: setting the in-currencies' conversion rates against the euro as the central ecu rates of the exchange rate mechanism; adopting the Lamfalussy rule expressed in terms of average ecu market rates.

Let ecu_i^c be the ecu central rate of currency i and S_{ji}^c , S_{ki}^c the corresponding bilateral central rates of currencies j ($j = 1, \dots, I$) and k ($k = I + 1, \dots, N$) in terms of currency i , so that:

$$ecu_i^c = \sum_{j=1}^I \alpha_j S_{ji}^c + \sum_{k=I+1}^N \alpha_k S_{ki}^c = euro_i \quad (5)$$

which is currency i 's euro-rate at T . The market ecu-rate on the previous day, $T - 1$, will be:

$$ecu_i^{T-1} = \sum_{j=1}^I \alpha_j S_{ji}^{T-1} + \sum_{k=I+1}^N \alpha_k S_{ki}^{T-1}, \quad (6)$$

so that

$$euro_i - ecu_i^{T-1} = \sum_{j=1}^I \alpha_j (S_{ji}^c - S_{ji}^{T-1}) + \sum_{k=I+1}^N \alpha_k (S_{ki}^c - S_{ki}^{T-1}). \quad (7)$$

Suppose that the in-countries manage to steer their bilateral exchange rates towards the central parities, so that the term in the first parenthesis on the right-hand side is zero. It is however most unlikely either that also the exchange rates of the out-currencies converge to

their central parities or that their deviations from central parities are such as to exactly offset each other: the term in the second parenthesis will then in all probability be different from zero and, as a result, the procedure of conversion into euro will cause a jump in the external value of the ecu.

For precisely the same reason it is not possible to adopt a conversion rate into euro in terms of an average of ecu market rates. If the rule is announced before T , with reference to an average of future and possibly past rates, we come across the same problem as when the ecu rates are pre-announced. If the rule is adopted at T , with reference only to past rates, the possibility that market rates at $T-1$ coincide with an average of past market rates is even more remote than for central rates.

3.2. Adopting the ecu market rate on the last day as the conversion rate: an economically undesirable solution

It follows from our argument above that, if there are out-currencies in the ecu basket, the only way of setting the euro rates in terms of the ecu while at the same time leaving the external value of the ecu unaffected is to fix the conversion rates as the market ecu rates on the last day before the third stage. This would however be a most unattractive procedure. First, there is a problem of indeterminacy of such rates, so that there would be no anchor for market expectations:⁷ a problem made more relevant by the uncontrollable movements of the exchange rates of the out-currencies present in the ecu basket (one of which will probably be an important international currency, like sterling). Second, that procedure may cause moral hazard problems with the in-countries. Once admission has been obtained, so that 'severe tensions' in exchange rate movements⁸ can no longer be invoked against it, and as long as the ERM remains in place with the wider 15% band, there would be a temptation to let one's currency depreciate within the band, thus engineering a *de facto* last devaluation in order to enter the third stage with a competitive advantage. Third, the markets would perceive all this, so that

⁷ See Begg *et al.* (1997), where a forceful argument against letting the job of setting the (irrevocable) euro conversion rates for the in currencies to the market can be found.

⁸ Article 3 of the Protocol on the convergence criteria referred to in Article 109j of the Treaty.

there may be speculative movements and in any case considerable and undesirable volatility in the interim period.

4. Bilateral parities: advantages and problems

4.1. Bilateral conversion rates

If conversion rates are set as bilateral parities between the in-currencies, we restore a degree of freedom that allows this procedure to be compatible in principle with the external value constraint.

Consider first the case in which bilateral conversion rates are pre-announced. Equation (3) above now becomes:

$$\text{ecu}_t = \sum_{j=1}^I \alpha_j S_{ji}^* + \sum_{k=I+1}^N \alpha_k S_{ki}, \quad (3')$$

where S_{ji}^* are the pre-set bilateral conversion rates of the in-currencies. At T the conversion rate of the latter with the euro will be the market rate of the ecu, which will depend in turn on the bilateral exchange rates of the out-currencies. The only consequence of fixing the in-currencies' bilateral rates is that, at T , the out-currencies will have appreciated or depreciated against each in-currency in exactly the same proportion.

In principle the bilateral conversion rates could be the market rates at some time $t < T$, or the central EMS rates, or those derived from a Lamfalussy rule. Pre-setting bilateral rates, no matter how, meets however with an economic problem and with a potential legal difficulty. Before facing these issues, we can do some more pruning and exclude the Lamfalussy rule as a desirable option even if applied to bilateral parities.

4.2. Ruling out the Lamfalussy rule

Recall that the Lamfalussy rule prescribes that the conversion rate at T should be an average of market rates: between t , when the rule is announced, and T , or between some date before t and T , so as

to give some weight also to the past. The alleged purpose of the proposal was to increase the credibility of the announcement of conversion rates, as central banks would not be obliged to intervene to defend a given parity. The rule suffers however from a number of defects, which make it unsuitable for practical application (see De Grauwe 1996).

First, at the moment of announcement of the rule, significant jumps in exchange rates are to be expected. This is possible also with alternative ways of setting conversion rates, but under the Lamfalussy rule there is an element of arbitrariness: if, as is quite possible, the market rate (which is the marginal rate) and the average rate move in an opposite direction at the moment of the announcement, the jump may occur in a direction opposite to that of market trends, producing artificial volatility unrelated to fundamentals. Second, use of the Lamfalussy rule does not prevent unpredictable drifts of the exchange rate after the announcement, causing significant uncertainty in the conversion rates to be applied after 1 January 1999.

We conclude that the Lamfalussy rule, though expressed in terms of bilateral rates, does not represent a satisfactory solution to the problem of setting conversion rates, even if applied to bilateral parities.

4.3. Problems with setting bilateral parities

a) An economic problem

Our conclusion that bilateral conversion rates are, unlike ecu conversion rates, compatible with the external value constraint assumes that the announcement of the conversion rates is fully credible so that bilateral market rates are driven to their announced conversion rates on day $T-1$. It is however useful to analyse what could happen if the market distrusts this announcement so that on day $T-1$ the market rates diverge from the announced conversion rates. In that case the authorities face a difficult choice which can be made explicit as follows. Start from equation (7), which we can now rewrite as

$$\text{euro}_i - \text{ecu}_i^{T-1} = \sum_{j=1}^I \alpha_j (S_{ji}^* - S_{ji}^{T-1}) + \sum_{k=I+1}^N \alpha_k (S_{ki}^T - S_{ki}^{T-1}). \quad (7')$$

In order to make the one to one conversion of the ecu into the euro on day T possible, the left hand side of (7') must be zero. Since we only fix the bilateral rates of the in-currencies, there is no constraint on the bilateral rates of the out-currencies (as was the case in equation (7)). Thus, at the start of day T the bilateral market rates of the out-currencies are equal to those observed at the end of day $T-1$. This sets the second term on the right hand side of (7') equal to 0. It follows that if on day $T-1$ the bilateral market rates of the in-currencies, S_{ji}^{T-1} , diverge from the announced conversion rates, S_{ji}^* , the authorities are in trouble. Either they renege their announcement and select the market rates of day $T-1$ as bilateral conversion rates, which allows them to convert one ecu into one euro on day T ($\text{euro}_i - \text{ecu}_i^{T-1} = 0$ in (7')); or, if they want to stick to their announced conversion rates, they must drop the latter constraint and violate the Treaty provision.⁹ This difficult trade-off can only be avoided if the announced fixed bilateral conversion rates are made fully credible. In that case the latter will coincide with the market rates and the one to one conversion of the ecu into euros on day T does not pose problems.

b) A potential legal hurdle?

We have shown so far that, while setting ecu-conversion rates is technically impossible, unless the conversion rates are set as, or happen to coincide with, the market rates at T , there are no technical obstacles to fixing bilateral rates and taking the ecu market rate at T as the final ecu/euro conversion rate. We ruled out the Lamfalussy rule not because it was inconsistent with the requirements of the Treaty, but because it had other undesirable consequences.

A discretionary decision adopted by the Dublin Council on a proposal from the Commission seems however to rule out the whole set of options based on the adoption of bilateral conversion rates without previously passing through the ecu rate.

⁹ Obstfeld (1997) suggests that the only way to solve the problem created by the external value constraint is to abolish that constraint altogether by repealing Article 109I of the Treaty. This would no doubt allow a more straightforward and satisfactory procedure for setting the conversion rates. To obtain this result, however, an agreement on, and fifteen parliamentary approvals of, the formal repeal of a Treaty provision would be required: an unlikely event.

Pursuing the request of the Madrid Council that "a Council regulation entering into force on 1 January 1999 will provide the legal framework for the use of the euro" and "will have the effect that the national currencies and the euro will become different expressions of what is economically the same currency" (para. 9 of the Annex), in December 1996 the Ecofin and the Dublin European Council approved two regulations issued by the Commission of the European Communities (COM 96 499 final, 16.10.1996), of which the one "on some provisions regarding the introduction of the Euro" deals with the problem of setting the conversion rates.

The relevant provisions are the following (Article 4):

"(1) the conversion rates shall be adopted as one euro expressed in terms of each of the national currencies of the member states without a derogation. They shall be adopted with six significant figures.

[...]

(3) The conversion rates shall be used for conversions either way between the euro unit and the national currency units. Inverse rates derived from the conversion rates shall not be used.

(4) Monetary sums to be converted from one national currency unit into another shall first be converted into a monetary sum expressed in the euro unit, rounded to at least three decimals, and then be converted into the other national currency unit".

The comment to the draft regulation states that "in order to avoid inaccuracies in conversions, the irrevocable fixing only includes the conversion rate between the euro and the national currency units", while "the bilateral rates between the national currency units will be derived from these conversion rates". It adds that "Article 4 (4) [...] provides a binding algorithm for conversions between national currency units, given that those bilateral rates will not, according to the definition of conversion rates in Article 1, be defined directly".

The rationale of this decision is difficult to understand. At any rate the detailed provisions cited above go far beyond the need to stress that in the third stage what matters is the euro and not national currencies. A strict and narrow interpretation of those provisions would make it impossible to formally set the final conversion rates bilaterally – whether before T or at T – and then derive the ecu/euro conversion rate from the unconstrained ecu market rate. Having

proved before that pre-announcing rates in terms of ecu, or setting them in terms of central ecu values, is inconsistent with the ecu external value constraint set by the Treaty, the only option left by this interpretation would be that of setting the in-currencies conversion rates in terms of the market value of the ecu at T : a most unattractive procedure, as we argued above.

We maintain however that a broader interpretation of the regulation is possible, under which euro conversion rates can be derived implicitly from previously agreed bilateral rates. We describe the procedure in the next Section, where we also consider briefly the problem of credibility.

5. A proposal

We propose an indirect decision-making process that involves several steps. First, the Council, soon after the selection of the in-currencies, announces *the method* that will be followed at the start of the third stage *to fix the ecu/euro conversion rates*, in compliance with the regulation: the euro conversion rates on 1 January 1999 will be set equal to the market ecu rates of 31 December 1998. Second, the authorities of the in-countries will reach, and preferably announce, an agreement on the structure of the bilateral rates of their currencies that will be implicit in, and will constrain, the final euro conversion rate. This procedure is in our view compatible with the regulation, insofar as the formal decision will be taken in terms of euro/ecu rates; there is on the other hand no provision, either in the Treaty or in the regulation, that prevents the in-countries from agreeing on a set of bilateral rates.

It may be objected that there is going to be a last minute uncertainty regarding the precise values of the euro conversion rates. This uncertainty, however, only concerns the *levels* of these rates, but not their *ratios*. Thus, suppose that the decision has been taken that the FF/DM rate will be $S_{DM,FF}^*$ and that the bilateral market rate has converged to that level. As a result the ratio between the euro conversion rates of the two currencies will be $euro_{FF}/euro_{DM} = S_{DM,FF}^*$.

The uncertainty as to the last minute values of $euro_{FF}$ and $euro_{DM}$ will not concern that ratio, as the two ecu/euro rates will change in the same proportion. The uncertainty as to the levels has little economic relevance, as the choice of euro rates has an element of arbitrariness anyway: dividing or multiplying those rates by any arbitrary number would leave the structure of bilateral rates unaffected.

Next there is the problem of the credibility of the agreed upon bilateral rates. The authorities of the in-countries must take a firm commitment to steer their bilateral market exchange rates towards the agreed levels, by means of coordinated inframarginal interventions, to whatever extent is required, and of interest rate policies. Whether announced or not, the markets must be convinced that the commitment is unconditional and hence that the agreement is credible: if so, as the final date approaches, market rates will gradually converge to their target levels.¹⁰

How should the target bilateral rates be chosen? This is to no little extent a political problem. Central rates provide an unambiguous solution, which as such is preferable, but which may be objected to by those countries with a market exchange rate of their currencies depreciated with respect to the central rate. The choice of market rates at the time of decision may meet with opposite objections. One thing however is clear. Our proposal requires agreement on a specific and precise level of bilateral rates. This rules out more complicated solutions that leave the precise level of bilateral rates uncertain until the last moment, of which the Lamfalussy rule is one instance.

6. Conclusion

The two conditions, that the adoption of the irrevocably fixed conversion rates should not modify the external value of the ecu and that one euro should be equal to one ecu, severely constrain the choices about how to set the conversion rates for the third stage. In a

¹⁰ Begg *et al.* (1997) argue in favour of letting market rates move freely in the interim period and bringing them in line with the announced rates by means of massive interventions on the last market day: a last-day intervention would leave the money supply of the euro-area unaffected. It may be noted that the procedure for setting the conversion rates that we have suggested has the merit of leaving a margin of tolerance for small last-minute deviations of market rates from the target levels.

nutshell, the constraint is that the conversion rates used on 1 January 1999 will have to be the market rates observed at the end of the previous day, whether they are expressed bilaterally or directly in terms of the euro. The constraints are however more binding if it is decided that the conversion rates must be set in euro: in this case it is not possible to announce fixed conversion rates in advance, so that the irrevocable conversion rates must necessarily be the ecu market rates of each participating currency on the last market day of 1998. This has several drawbacks: the temptation for some of the countries admitted to the single currency to engineer, *de facto*, a 'last devaluation'; the markets' perception of this temptation; the fluctuations of the market ecu rates caused by the movements of the exchange rates of the outside currencies. In the end, if it is decided to set euro conversion rates, the choice of those rates will be left to the market.

These constraints are less tight if it is decided to set the euro conversion rates indirectly, by first determining the bilateral rates. To make this legally possible, we suggest a procedure consisting of two parallel moves: announcing that the euro/ecu conversion rates to be adopted will be the ecu market rates on the last day before the third stage; reaching an agreement on the structure of bilateral rates prior to 1 January 1999, which may or may not be announced. The authorities of the countries concerned should then take a firm and explicit commitment to steer the market rates toward the agreed levels. If the commitment is credible, market rates will converge to the conversion rates before the latter are irrevocably set: the market ecu rates, which must equal the euro conversion rate, will then be compatible with the bilateral parities and not be the last minute outcome of the whims of the market.

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