

## THE ECB AND THE EURO

*The effectiveness with which central banks can correct exchange rate levels or reduce instability is much debated. The main condition for such intervention being successful is that it is coherent with macroeconomic policy. From this point of view, the joint involvement of the European Council and the ECB in setting the exchange rate policy of the euro would appear to be sensible. But, its application will be difficult, given the constraints and the different objectives of both institutions. The principles for coordinating monetary and fiscal policy should be set out clearly if the capacity for the ECB to intervene is not to be inhibited.*

Exchange rate policy was for a long time considered a murky area of the Maastricht Treaty<sup>1</sup>. The Council is the only body capable of concluding formal accords on exchange rates, such as target zones, and may also set out "general guidelines" for policy. But the European Central Bank has to be consulted, and it may refuse to implement a policy which threatens its goal of price stability. Such ambiguity has not really ceased since the creation of the euro. The ECB did not seek to prevent the quasi-continuous depreciation of the euro against the dollar during the first half of 1999: the bank cut its interest rate in April, and has not intervened in the markets to support the euro<sup>2</sup>. For their part, the Ministers of Finance of the Eleven have not provided any "general guidelines" for exchange rate policy. To be sure, this *laissez-faire* attitude has been dictated by the euro-zone's weak economy and the absence of any inflationary pressure. Nevertheless, it may be asked whether the ECB has the will to intervene in the markets.

### ■ How Could Exchange Rates be Stabilised?

The exchange rate is an essential tool for absorbing economic shocks between countries or zones whose business cycles are not synchronised. At the beginning of 1999, for example, the appreciation of the dollar and the depreciation of the euro were both offset by the strength of the American economy and helped support European activity. However,

exchange rate fluctuations are often excessive and hence damaging, in as much as they generate hedging costs, slow down investment or exacerbate protectionist pressures. Such fluctuations may also contradict the needs of macroeconomic stability. An oft-quoted example concerns the appreciation of the dollar during the second half of 1984, which occurred despite the fact that interest rate differentials and the US trade deficit actually required a depreciation. The evolution of the exchange rate thus worsened the deficit and the accumulation of America's foreign external debt. The strong appreciation of the yen in September 1999, even though the Japanese upturn is fragile, is another example.

Some economists have suggested establishing target zones for the relationships between the euro, dollar and the yen. The authorities would be committed to holding exchange rates within fluctuations margins that could be reset by agreement<sup>3</sup>. Many favour more flexible, case-by-case intervention by the authorities, on the basis of close surveillance of spreads between exchange rates and the levels of economic fundamentals<sup>4</sup>. In each case, the success of the system depends on the existence of instruments that actually make it possible to influence the level of the exchange rate, or its instability.

Forex controls would be the first possible instrument: by restricting the capital inflows and outflows, violent balance of payments disequilibria and exchange rate fluctuations can be limited. France used this instrument to defend its currency in the early 1980s. But such controls increase the

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1. See A. Bénassy, A. Italianer and J. Pisani-Ferry, "The External Implications of EMU", *Economie et Statistique*, Special Issue, 1993.

2. In principle, intervention would be decided by the ESCB (European System of Central Banks). The term ECB is used here for simplicity. The Bank did intervene once (the 18 June 1999), but on behalf of the Bank of Japan. See ECB, Monthly Bulletin, July 1999, p.28.

3. See, for example, F. Bergsten, "How to Target Exchange Rates", *The Financial Times*, 20 November 1998.

4. See O. Davanne, "Instabilité du Système Financier International", *Rapport du Conseil d'Analyse Economique*, n°14, 1998.

price of capital, and financial innovation makes them more and more difficult to put into place. Indeed, the industrialised countries gave up such measures twenty years ago, a move that has been followed by numerous developing countries. For the latter, however, the recent exchange rate crises have brought controls back to the fore, as a temporary measure aimed at halting international contagion, or as a means of favouring long term capital inflows at the expense of short term capital (as practised in Chili).

The second instrument is monetary policy itself: by shifting short term interest rates, central banks can influence the international allocation of private portfolios. This has an immediate impact on exchange rates, given the scale of transactions, an impact which can even occur prior to interest rate changes if the latter are expected by markets. However, the likelihood at present that the G7 countries will alter their monetary policy in order to stabilise exchange rates is slim. In fact each country or zone is more likely to set its policy according to domestic considerations, given that central banks are independent, that foreign markets are relatively small compared to GDP for the United States, Japan and the euro-zone, and that the room for manoeuvre on fiscal policy is narrowing. Under these circumstances, monetary policy can influence exchange rates, but this is not the goal of monetary policy.

The third instrument consists of intervening directly in the forex markets: the central bank buys or sells assets denominated in foreign currencies, depending on whether or not it seeks to appreciate or depreciate its domestic currency. Obviously, such action changes the assets of the bank and hence base money provided to the economy. If the central bank wants to prevent its exchange rate interventions from interfering with monetary policy, then it must sterilise them, through buying or selling domestic assets in a way that leaves the supply of money unchanged.

In the past, the central banks of the major economies have frequently intervened in the foreign exchange markets. For example, the Federal Reserve intervened 215 times in the dollar/mark market between 1985 and 1995, equivalent to about one and a half times per month, even if such an average is actually misleading given that interventions tend to be grouped (see Table 1)<sup>5</sup>. The sums put into the market - on average \$150 million - are growing steadily (the concerted intervention on the 17 June 1998 ran into several billion dollars). But they are now less frequent than during the latter half of the 1980s, occurring in a market that is far more active (in April 1998, approximately \$1500 billion was traded every day, compared to \$590 billion in April 1988)<sup>6</sup>.

Between 1985 and 1995, more than half of the interventions by the Fed were undertaken in concert with other central

banks. Such joint interventions are often highly publicised. On other occasions, central banks may agree not to let the markets know about their interventions, dealing through brokers or selected banks. The latter have an interest in not divulging information about such deals, as they want to retain such special business. Such "secret" interventions may

Table 1 - Interventions on the mark/dollar, 1985-1995 (2868 working days)

	Federal Reserve	Bundesbank	Coordinated Interventions
Number of official interventions	215	264	97
Number of interventions reported by the press	184	161	-
Average size (in USD millions)	162	123	-

Source: Central Banks.

occur when a central bank does not want to shift the exchange rate, but may want to build up its reserves<sup>7</sup>.

## Useful Interventions with Multiple Equilibria

Central bank interventions are generally sterilised, even if the rate of sterilisation varies depending on whether or not the exchange rate objective coincides with the monetary objective. Sterilised interventions affect the exchange rate in two ways:

- a portfolio effect: the amount of money the central bank puts into the forex markets alters the equilibrium between world supply and demand for a particular currency;
- a signal effect: by intervening in the forex markets, the central bank provides the market with information it does not have, concerning future monetary policy for example: such intervention affects the value of a currency by provoking changes in private agents' expectations.

The effectiveness of these channels is far from being certain. On the one hand, the monetary authorities do not have the means to intervene substantially: world central bank reserves are only equivalent to about one day's transactions on the forex markets. More than half these reserves are held by developing countries, which do not normally intervene to support exchange rates among the major currencies. As for the ECB, it only holds approximately 15% of world reserves. Intervention against a massive speculative attack is therefore limited. On the other hand, the signal effect is ambiguous. If central banks sterilise their interventions, then in principle the latter provide no information about trends in the money supply<sup>8</sup>. In this case, the signal does not principally say anything about the future of monetary policy. Rather, it

5. Data on official intervention is only made public by some central banks, after several years.

6. Sources: the French Treasury Department, "L'efficacité des interventions sur le marché des changes", annex A from *Architecture du Système Financier International, Rapport du Conseil d'Analyse Economique*, 1999. Bank of International Settlements, *Central Bank Survey of Foreign Exchange and Derivatives Markets Activity*, May 1999.

7. See K.M. Dominguez and J.A. Frankel, *Does Foreign Exchange Intervention Work?*, Institute for International Economics, 1993.

8. For this reason A. Weber puts much of the blame for the EMS crises in 1992 and 1993 on the sterilisation policy of the Bundesbank. See A. Weber, "Exchange rates and the effectiveness of central bank interventions: new evidence for the G3 and the EMS", in E Girardin and J. Méliitz, *European Currency Crises and After*, Routledge, 1995. The same could also be said for interventions by the Bank of Japan in mid-September 1999, which had a limited effect on the yen given the lack of accompanying monetary policy shifts.

draws market attention to the divergence between the exchange rate and its fundamental determinants (assuming that the monetary authorities have an information advantage).

In practice the effectiveness of both these channels is much debated. In 1982, the Jurgensen report, undertaken at the request of the G5 members, raised doubts about the effectiveness of such intervention in itself, and stressed the importance of pursuing simultaneous macroeconomic policies. Since then, a number of forex interventions have nevertheless had some success, such as those affecting the dollar, following the Plaza accords, the 22 September 1985, or the more recent, coordinated intervention by the Bank of Japan and the Federal Reserve to halt the depreciation of the yen, the 17 June 1998<sup>9</sup>. A systematic study of interventions shows that they can have an impact over a number of weeks, provided that they are not contradicted by macroeconomic trends<sup>10</sup>.

In the very short term, however, the impact of interventions is surprising (see Box)<sup>11</sup>. To begin with, they have a sometimes strong impact on the exchange rate the same day, but not in the direction one would expect: if the central banks purchase dollars this may be accompanied by a depreciation of the currency. Inverse causality may explain this result: the central banks buy the currency which is depreciating. However, econometric testing rejects this explanation. Another explanation lies in the short term dynamics of the markets: the markets test the determination of the central banks by betting against the intervention, so that the rate may shift in the wrong direction by the end of the day. But, after the first day, the exchange rate tends to follow the impulse given by the central banks.

Secondly, interventions tend to increase exchange rate instability in the short term, unless they are kept secret. This means that the markets are not indifferent to such interventions when they are made public. This is also coherent with the idea that markets test central bank determination in the very short term. But it indicates that interventions cannot be used to reduce forex market volatility on a day-to-day basis.

Thus official interventions would appear to be a delicate mechanism to use, as their effectiveness is very sensitive to very short term market reactions, and because they must be applied in a way that is coherent with the rest of economic policy. For example, there is no point intervening to support a currency if the budget deficit is getting out of hand and monetary policy is expansionary. In contrast, fiscal stabilisation and low inflation would generally reinforce the value of a currency, without there being any intervention. In the first case intervention is not effective, in the second case it is superfluous.

#### BOX - THE IMPACT OF INTERVENTIONS IN THE VERY SHORT TERM

An equation was estimated to explain the daily variations in the logarithm of the exchange rate of the mark to the dollar ( $r_t$ ) by the spread in interest rates between the two currencies (SPR<sub>t</sub>), by official interventions of the respective central banks (IO<sup>BB</sup><sub>t</sub> et IO<sup>FED</sup><sub>t</sub>), as well as by the daily effects D1<sub>t</sub> et D2<sub>t</sub> each expressing the number of holidays just before and just after the date  $t^{**}$ , and a disturbance factor  $\varepsilon_t$ . The variance of the disturbances is also modelled according to the FIGARCH specification: the disturbances  $\varepsilon_t$  affect this variance in a persistent way, but one which is not infinitely durable. Furthermore, a Student distribution is assumed for such disturbances.

The estimation is carried out using daily data for the period 1985-1995. The result is as follows:

$$r_t = -0.033 + 0.014 D2_t - 1.133 IO_t^{BB} + 0.303 IO_t^{FED} + 0.125 SPR_t + \varepsilon_t - 0.056 \varepsilon_{t-1} \\ (-2.573)** \quad (0.964) \quad (-3.123)*** \quad (1.001) \quad (1.484) \quad (-3.119)**$$

where the conditional variance of  $\varepsilon_t$  is given by:

$$\sigma_t^2 = -0.004 + AL \varepsilon_t^2 - 0.162 D1_t + 1.136 |IO_t^{BB}| + 1.366 |IO_t^{FED}| - 0.147 |SPR_t| \\ (-0.184) \quad (5.594)*** \quad (1.843)* \quad (2.253)** \quad (-2.109)**$$

Where AL is a FIGARCH lagging function, whose coefficients are estimated as being significant at 1%. A positive value for  $r_t$  corresponds to a rise in the dollar. The Student  $t$ s are indicated in brackets, and the stars indicate the degree of significance (\*for 10%, \*\*for 5% and \*\*\*for 1%). Dollar purchasing by the Bundesbank brings down the dollar, whereas interventions by the Federal Reserve do not have a significant impact on  $r_t$ . The interventions by both central banks raise significantly the volatility  $\sigma_t^2$  of the exchange rate. These results are not explained by inverse causality. Indeed, complementary estimations show that the variation of the exchange rate day-to-day and its conditional volatility do not affect the probability of intervention significantly.

\* Based on M. Beine, A. Bénassy-Quéré and C. Lecourt *op. cit.*

\*\* These dummy variables are used to show up volatility of exchange rates, which is often greater just before or just after a weekend or holiday.

However, exchange rates are very often subject to multiple equilibria, given agents' uncertainty about the model to be used. For example, the level of the euro with respect to the dollar in mid-1999 could be judged as correct, in terms of purchasing power parity or the excellent health of the American economy. Alternatively, it may be deemed too low given the need to smooth out balance of payments disequilibria on both sides of the Atlantic<sup>12</sup>.

The real use of interventions arises in such a context of multiple equilibria. Let us assume that a country's economy is slowing down. Its position in the business cycle would thus require a depreciation. However, with inflationary risks falling and the current account improving due to the fall of domestic demand, the forex markets may expect the currency to remain strong, despite low interest rates. This is exactly what happened to the European countries at the end of 1998. Under these circumstances, forex interventions

9. See French Treasury Department, *op. cit.*

10. See P. Catte, G. Galli and S. Rebecchini, "Exchange markets can be managed!" *International Economic Insights*, Sept-Oct 1992, or the Lettre du CEPII, No 112, April 1993.

11. Here we refer essentially to the conclusions of a study by M. Beine, A. Bénassy-Quéré and C. Lecourt, "Central bank intervention and foreign exchange rates: new evidence from FIGARCH estimations", CEPII Working Paper, 1999. The results conform largely to the literature on this subject.

12. See D. Borrowski and C. Couharde, Annexes B and C in *Architecture financière internationale*, report by the CAE, 1999.

could provide a useful complement to monetary policy, by helping markets select the exchange rate which is best suited to the macroeconomic situation. At the same time, the central bank would reveal its intentions to the markets of stabilising the business cycle, despite a possible rise in the public deficit.

## ■ Economic Policy and Exchange Rate Policy in the Euro-Zone

The European institutions, which have *de facto* made exchange rate policy the joint responsibility of the European Council and the ECB<sup>13</sup>, are coherent with the need for this policy to be carried out in concert with monetary and fiscal policies. But the objectives of the ECB and the constraints on the Council may make such cooperation difficult. First, monetary policy is geared primarily to maintaining price stability, but the ECB does not seem to have fixed formally a floor for the rate of inflation. The Bank will thus be reticent about intervening to bring down the euro, even if there are no risks of inflation. Second, fiscal policy is constrained by the Stability and Growth Pact. As public debts are essentially denominated in euros, a fall in the euro would be favourable to public finances, as it would stimulate activity (and hence tax revenues) without increasing debt. Europe's heads of government are thus naturally disinclined to intervene to make the euro rise. This is all the more so

given that they are elected and subject to pressure from business, which is not the case of ECB officials.

A solution to this institutional conundrum would be to set out principles for the coordination of monetary and fiscal policies<sup>14</sup>. Thus for example, if demand falls in Europe, intervention could support monetary policy in seeking a weaker euro, while the euro11 commit themselves to a schedule for restoring the aggregate fiscal balance of the zone. Alternatively, were inflation to rise in the Europe, then official interventions could help push the euro higher, with the ECB committing itself to a schedule for loosening monetary policy. Lastly, where speculative movements occur in either direction, official interventions could be accompanied by clear declarations made by both institutions. Thus exchange rate policy in the euro zone could provide an opportunity for the ECB and the Council to reinforce their cooperation, so as to be able to use interventions in the markets effectively. Such an approach to policy would be strongly appreciated by G7 partners, who prefer Europe to speak with one voice<sup>15</sup>. But, this could run up against problems of coordination within the euro11 or the European System of Central Banks.

**Agnès Bénassy-Quéré**  
A.BENASSY@CEPII.FR

13. This is borne out by the European Council resolution in Amsterdam (June 1997) to make decisions relating to ERM II (central rates, fluctuation margins) which are the joint responsibility of the Council and the ECB. It should, nevertheless, be remembered that the ECB is free not to intervene in the forex markets if this conflicts with its objective of price stability.

14. This should be done in the spirit of coordination within the G7 put forward by B. Coeuré and J. Pisani-Ferry. See by B. Coeuré and J. Pisani-Ferry, "The euro, the yen and the dollar: the case against benign neglect", IMF *Conference on key issues in reforms of the international monetary and financial systems* (Washington, May 1999).

15. In both the United States and Japan, the Ministers of Finance have sole responsibility for exchange rate policy, even if they may sometimes conflict with the central banks.

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#### EDITORIAL OFFICES

Centre d'études prospectives  
et d'informations internationales,  
9, rue Georges-Pitard  
75015 Paris.  
Tél. 33 (0)1 53 68 55 14  
Fax : 33 (0)1 53 68 55 03

PUBLISHER:  
Jean-Claude Berthélemy  
Director for the CEPII

CHIEF EDITORS:  
Agnès Chevallier  
Stéphanie Guichard

TRANSLATION:  
Nicholas Sowels

DTP:  
Annick Hutteau

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