

FLIGHT FROM THE OLD EURO-AREA CURRENCIES

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More than a year ago, the Ifo Institute attributed the weakness of the euro to the flight from the old euro area currencies in terms of D-marks returning from eastern Europe and other parts of the world and black monies from within the euro area countries.¹ While the empirical evidence of this effect was anecdotal initially, it has improved significantly over the last year. The most striking evidence is the truly dramatic decline in the stock of euro area currencies in circulation which took place in recent months. This decline reflects the increasing pressure which has been exerted on the euro. This note reports on this evidence.

The theoretical explanation and some empirical basis of the negative effect on the euro resulting from the reduced currency demand were presented in a formal working paper from early 2001 and an article in this journal (Sinn and Westermann 2001a, 2001b). According to the theoretical explanation, the reduction in demand for the old euro currencies reduced the value of the euro and induced the ECB, which pursued an interest target policy, to buy back the outstanding currencies against short-term securities which were mostly part of the broader money aggregate M3. By changing the composition of M3, given its size, the ECB prevented the interest rate from falling further than it did, but it was unable to fully avoid a fall in the external value of the euro.

After all, as M3 was not affected, the ECB was unable to counter the exchange rate effect which necessarily resulted from a desired private portfolio shift from short-term European to short-term foreign assets. A reduction in M3 could have been brought about by sterilised interventions in favour of the euro. Such interventions occurred, but they

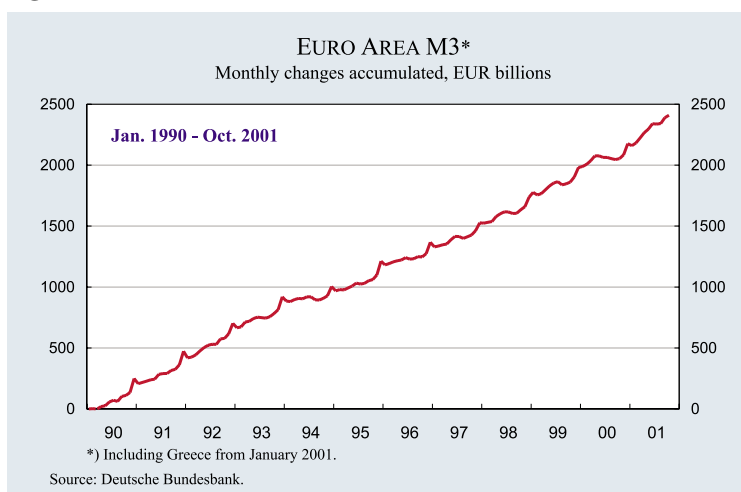
were too small to be visible in the data. If anything, the time path of M3 became steeper in the relevant period (Fig. 1).

From a theoretical perspective, the exchange rate effect resulting from the flight from euro currencies was itself similar to that resulting from a sterilised intervention in the exchange market. Empirical findings by Evans and Lyons (1999, 2001) on the exchange-rate effects of sterilised interventions suggest that a one billion portfolio shift from euro currency to dollar currency can explain a long-term depreciation of the euro against the dollar of about 0.4–0.5 cents in the short term and 0.3–0.4 cents permanently.

Assessing the magnitude of the relevant exchange-rate effects requires estimating the magnitude of the reduction in the stock of currency in circulation. This is a difficult task, since statistics on the currency circulating abroad and, of course, on the stocks of black money are not available. This is the kind of indirect evidence which has been available thus far:

(1) Explaining German money demand from 1966 through 2000 with the usual ingredients (interest rate, GDP, time), Sinn and Westermann (2001a) calculated a trend for money demand and showed that, by the end of the year 2000, the actual currency in circulation had fallen below this trend by more than two standard deviations or EUR 27 billion. Assuming that the observable decline in the share of D-marks in the total stock of euro currencies resulted from currency returning from abroad and that the remainder stemmed from a flight out

Figure 1



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of black D-mark currency, which would similarly occur in other countries, the authors calculated a total reduction of euro area currency in circulation against the trend of EUR 48 billion in the period from 1997 to 2000.

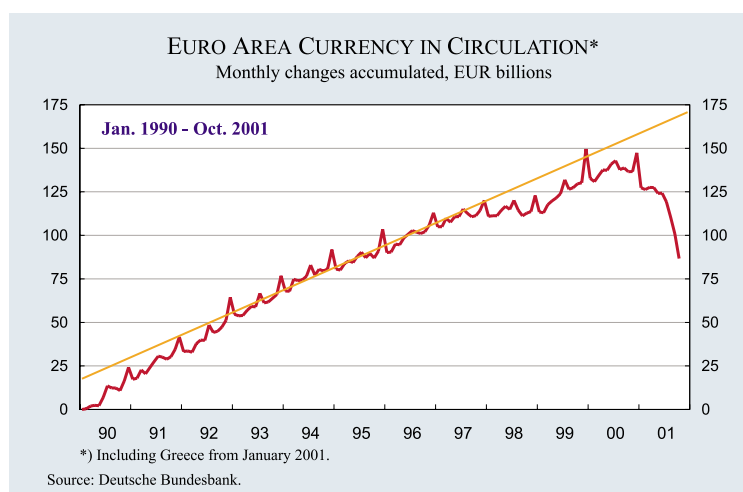
(2) According to a broad survey by the Austrian National Bank in five east European countries (Stix 2001), the absolute decline of D-mark currency from the second half of 1998 until the first six months of 2001 can be fully explained by the decline in D-mark currency held abroad.

(3) According to the same study, in May 2001 most holders of D-mark currency in eastern Europe were still undecided whether or not to convert this currency to euros. Of those who had decided, 41% said they did not want to convert their D-mark currency to euros but to other currencies. Sinn and Westermann (2001b) inferred that the survey would imply that a sum of EUR 14 billion would be returned in the remaining months of the year 2001.

(4) The ECB declared in its November Bulletin (p. 12) that 0.75 percentage points of the annual increase in M3 had consisted of additional short-term securities which were being accumulated outside the euro area countries. In absolute terms this is a sum of about EUR 40 billion. The ECB therefore decided to redefine its broad money aggregate M3 so as to exclude from this aggregate short-term securities with a maturity of up to 2 years which are held by non-residents. Recalculating the difference between the old and new definitions of M3, the Ifo Institute estimates that, from January 1999 to September 2001, non-residents of euro countries had accumulated short-term securities of the described category in the order of EUR 100 billion. It seems likely that a substantial part of this sum is the counterpart of the currency which returned from abroad and was exchanged for short-term securities by the ECB so as to prevent an interest decline.

The evidence helps solve the puzzle of how large the reduction in the demand for euros has been in recent years, but even more striking evidence

Figure 2



results from the data contained in the following figures. The deviations from the growth trend of currency in circulation is so large that not sophisticated econometric techniques are needed to see what is going on.

Figure 2 shows the time path of overall currency in circulation of the euro area countries calculated on the basis of the official final exchange rates. It is obvious that a deviation from the general trend begins in 1997 and becomes truly dramatic in 2001, showing an accelerated flight from the old currencies. No end of this development was in sight in October, the last month for which data were available. "Eyeball econometrics" shows that the overall downward deviation from the trend may easily have been in the order of EUR 90 billion. Using the results of Evans and Lyons as cited above, this explains up to US\$ 0.36 cents of the actual decline of the euro (or D-mark, respectively) since 1997.

The effects shown in Figure 1 result from passive interventions of the ECB, changing the composition of M3, given its size, in order to defend the declared interest targets. If the ECB had not intervened passively, there would have been a sharp interest rate decline, and the decline in the euro would have been stronger, but it would have been impossible to see the decline in the demand for euro currencies in the money data. The stock of currency in circulation would have remained unaffected. The decline in the actual stock of currency in circulation is not the cause of the decline in the exchange value of the euro, but an implication of the decline in the demand for this currency resulting from a policy reaction by which the short-term

interest rate was stabilised and the fall in the euro was mitigated. However, it is a clear sign of the magnitude of the original demand decline and the forces that must have put pressure on the euro.

The decline in the currency in circulation was a rather general phenomenon, applying to nearly all euro area countries. Figures 3–8 (p. 47) show the evidence for Germany, France, Italy, Austria, Spain and the Netherlands. Everywhere we see a sharp decline of the currency in circulation during the year 2001.

In Germany, however, the decline was much stronger than in other countries and it began earlier. Obviously, this country alone explains a decline of the currency in circulation from the trend of about 60 billion euros which amounts to two thirds of the overall decline in the currency in circulation of all euro area countries, although Germany has only 34% of the total GDP. This aspect can certainly be attributed to the fact that the large stocks of D-marks that used to circulate abroad – one third of the total German stock according to Bundesbank estimates – have been returning from there. Among the euro currencies, only the D-mark classified as a significant international transactions currency.

References

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Currency in Circulation (euro equivalents)

Figure 3

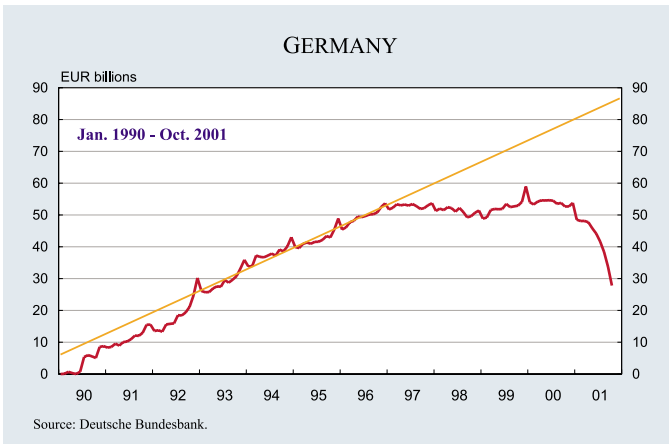


Figure 4

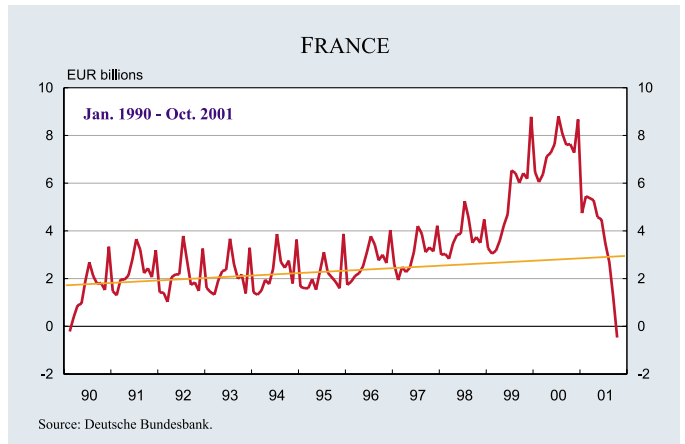


Figure 5

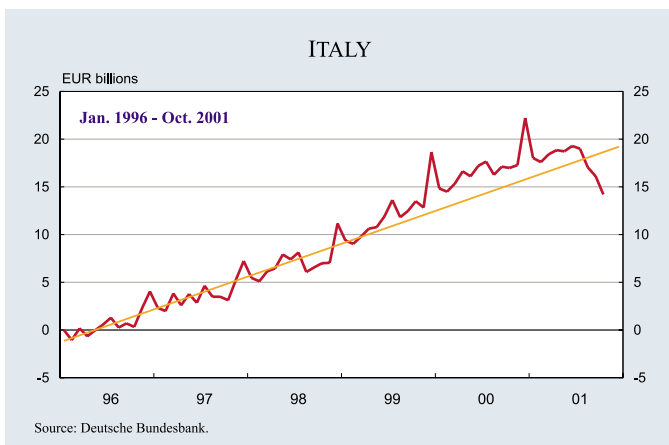


Figure 6

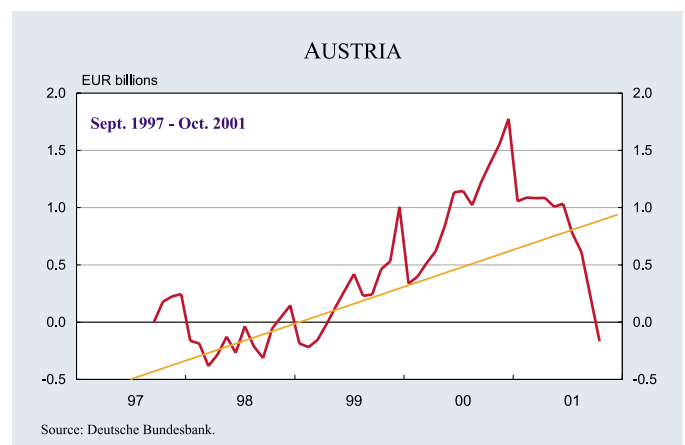


Figure 7

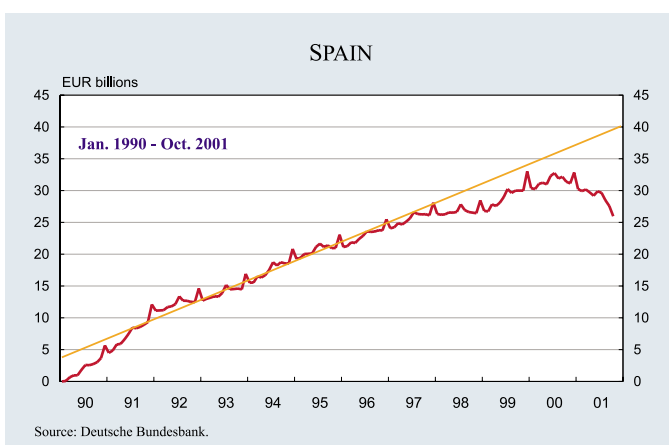
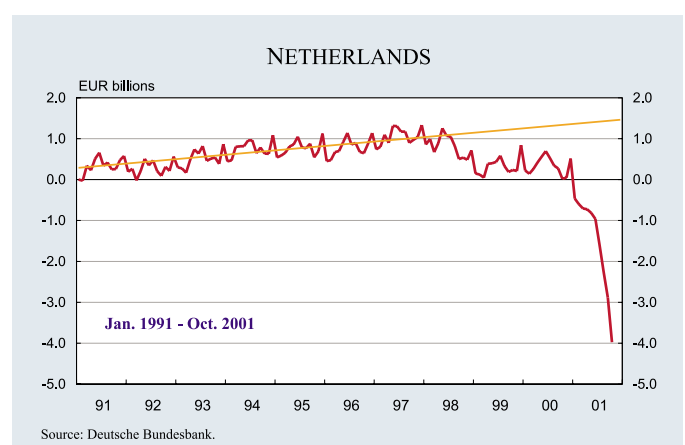


Figure 8



Legend: Currency in circulation, monthly changes, accumulated (initial value zero), million EUR.

Source: Deutsche Bundesbank (2001), Databank, on demand.