

# Experience of cross-border movements of Deutsche mark banknotes

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## 1. Introduction

The countries participating in European economic and monetary union introduced the euro as scriptural money on 1 January 1999. On 1 January 2002, monetary union was completed since, on that date, the previous national currencies, and thus also the Deutsche mark, were replaced by euro banknotes and coins. Therefore, the following comments will deal with both Deutsche mark banknotes and euro banknotes.

## 2. The circulation of Deutsche mark abroad

Until the introduction of euro (EUR) banknotes and coins, the Deutsche Bundesbank was the only institution in Germany which had the right to put unrestricted legal tender into circulation: in other words, banknotes denominated in Deutsche mark (DEM).

The DEM banknotes were released at the counters of various Bundesbank branches (as is the case for those EUR banknotes which are now issued by the Bundesbank). The customers (counterparties) were (are) essentially commercial banks. As a rule, the counters of Bundesbank branches deal with the commercial banks themselves or with cash in transit (CIT) companies commissioned by them. The CIT companies may also be holders of an account at the central bank, but no monetary policy operations are conducted with them.

The Deutsche Bundesbank does not ask customers how the currency withdrawn from the accounts at the central bank is later to be used or where the cash is to be transported. We know what stocks of currency the credit institutions hold at given times only on the basis of reports which the commercial banks have to submit every month. The stock of currency held by the credit institutions, however, makes up no more than a small part of all currency in circulation.

In the 1990s, it was noted that currency in circulation outside the banking system had been increasing for several years in both nominal and real terms. The increase in currency in circulation could not be explained by domestic payments. Nor could it be accounted for by suspected stockpiles of cash in Germany, the ultimate destruction of cash, or activity in any parallel grey or black economy. This only left the possibility that the rise in currency in circulation was due partly to demand abroad.

But how much DEM currency was there abroad? A statutory regulation obliged the resident credit institutions to report DEM sent to foreign economic areas as well as DEM received from foreign economic areas together with the settlement of the relevant amounts. However, the imports and exports of DEM reported by the credit institutions were likewise unable to entirely explain the high level of currency in circulation. Now, the Germans have the reputation of being enthusiastic travellers. They like going on holiday and often spend their holidays abroad. In Germany, there are also many "guest workers" who not only spend a comparatively small part of their income, but also save money and transfer it to their home country. As was pointed out in 1995 in a discussion paper published by the Economic Research Group of the Deutsche Bundesbank,<sup>1</sup> all these factors resulted in a circulation abroad equivalent to around 30 to 40% of total DEM currency in circulation. In absolute terms, this amounted to between DEM 65 billion and DEM 90 billion. This amount of demand for DEM banknotes

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<sup>1</sup> Seitz, Franz (1995): "The circulation of Deutsche mark abroad", *Deutsche Bundesbank Discussion Paper*, no 1/95.

resulted from private and commercial transactions and has never been fostered by the Deutsche Bundesbank.

Up to the end of 2001, commercial banks in Germany were required to report to the Bundesbank their imports and exports of banknotes or their settlement and to classify the data by country of origin and country of destination. However, these reports provided us with no more than limited data on the countries in which DEM banknotes mainly circulate. That is because DEM banknotes which were circulating in one country for payment purposes, for example, became surplus to requirements at some time or other and were bought by a commercial bank located in that country in foreign currency trading, but did not necessarily flow back from the commercial bank in question directly to Germany. In many cases, a commercial bank engaged in international currency trading is involved. If this commercial bank active in international currency trading happens to have its head office in a third country, the banknotes are officially imported into Germany from that third country. It is therefore not surprising that these reports often state countries of origin or of destination for the DEM banknotes in which major commercial banks active in currency trading have their head office - but these are countries in which DEM have quite definitely not been used either as a store of value or for payment purposes.

### **3. The changeover to the euro**

At the turn of 2001-02, the time of the changeover to the EUR, the situation regarding currency in circulation was as follows. DEM in circulation had declined significantly during 2001 by more than DEM 112 billion. As of 1 January 2002, however, the EUR that had been frontloaded from September 2001 were shown in the central bank balance sheets. This temporarily led to an enormous bloating of the volume of notes in circulation.<sup>2</sup>

In the short term, it was difficult to forecast the scale and timing of the continued increase in currency in circulation from the start of 2002 and the return flow of the nationally denominated currency. The forecasting difficulties also had to do with the fact that there is no precise information on who is holding how much currency for what purposes or on the timing or the channel chosen for exchanging the currency. In actual fact, the additional EUR demand at the start of 2002 exceeded the Eurosystem's expectations, whereas the old banknotes flowed back more slowly than projected. However, the changeover to the EUR proceeded smoothly outside the euro area too. This assessment relates to both the return flow of the old national banknotes and the introduction of EUR banknotes and coins.

#### **3.1 The return flow of Deutsche mark**

Especially in central and eastern Europe, DEM banknotes played an important role as a store of value and also, in some cases, as a means of payment. An orderly return flow of these banknotes to the branches of the Bundesbank was very important from a logistical point of view. In order to prevent uncertainty and logistically undesirable reactions in those countries, the Bundesbank provided the countries concerned with information on how the exchange of DEM for EUR was to be implemented.

In particular, the general public in those countries was given the message that DEM banknotes would not lose their value and would be exchanged by the Bundesbank for an unlimited period free of charge even after the DEM had ceased to have the status of legal tender. In its information campaign the Bundesbank thus assumed that DEM circulating abroad were mainly being held by non-banks. Of course, commercial banks in those countries were also holding DEM in order to conduct foreign currency business with the DEM. However, the size of the DEM stocks held by those banks is likely to have been geared primarily to foreign currency turnover with their customers and presumably was thus significantly lower than the stocks held by the general public.

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<sup>2</sup> The countervalues of the frontloaded banknotes were not immediately debited in full to the credit institutions' central bank accounts. Instead, one third of the amount was debited on each of the key refinancing dates: 2, 23 and 30 January 2002.

This meant that, by and large, the Bundesbank attempted to spread the exchange of DEM for EUR cash over a period of time. As mentioned above, DEM banknotes in circulation had already fallen significantly in 2001 by more than DEM 112 billion. This was accompanied by a marked increase in overnight deposits with the credit institutions. Mainly households, but also non-financial enterprises, significantly built up their liquid stocks of scriptural money. This behaviour is understandable, given the well known fact that EUR banknotes and coins were not yet available in 2001. Besides a reduction in residents' stockpiles of cash, a large return flow of currency from abroad was also a factor, though. For some of the DEM that flowed back from abroad it may be assumed that the previous holder had changed the cash into another currency and thus remained a holder of cash. We are unable, however, to make a conclusive judgment on the currencies into which an exchange was made, either into domestic currency or into a third currency such as the US dollar. Equally, some of the DEM in circulation abroad are likely to have been paid into domestic accounts. If the money stays in these accounts in the long term or is withdrawn from the accounts in domestic banknotes - for example, owing to increasing price stability in those countries - that part of the former DEM in circulation abroad will no longer have any further implications for future EUR in circulation abroad.

### **3.2 The circulation of euros abroad**

The circulation of EUR abroad covers the circulation outside the countries participating in monetary union. The starting point in December 2001 was an external circulation of zero. In December 2001, as part of frontloading, the Eurosystem then began to issue more than EUR 4 billion to central banks and credit institutions active in international currency dealing outside the euro area. Anyone who thinks this made it possible to make a precise statement on EUR in circulation abroad at the start of 2002 is mistaken. In line with the terms of frontloading, commercial banks too were able to send currency abroad in advance without having to report this to the central bank. As of 1 January 2002, the date of the official introduction of the EUR as legal tender, all reporting requirements on the import and export of banknotes in existence up to that time were lifted. We do try now to obtain information on a voluntary basis, but there is no reason to assume that voluntary reporting will result in a more comprehensive picture than was the case with the earlier mandatory reports.

## **4. Conclusion**

The procedure for handling inpayments and outpayments of cash at the Bundesbank branch counters described above makes it clear that we, as a central bank, have no knowledge of where the banknotes that leave our branches will subsequently be used. Conversely, we are unable to identify whether the banknotes that are returned to our branches have been used previously in Germany or in other countries. That is especially the case if a German commercial bank that is active in currency trading has bought DEM banknotes (from the start of 2001, EUR banknotes) in international currency trading. Since the German commercial bank is not only an international trader of currency but also conducts operations domestically with private and business customers, the banknotes from international currency trading are paid into our accounts along with the banknotes from domestic business operations.

On average, each DEM banknote was paid in, processed and paid out again at the Bundesbank branches between three and four times a year. In view of that fact, how is one supposed to keep track of cash movements? We did not know where the DEM banknotes were circulated, and the amount of DEM currency abroad had to be estimated. The circulation abroad was never promoted by the Deutsche Bundesbank, however. We still have no information about how often EUR banknotes will flow back into the central bank system in future. But given the size of the euro area, the amount of EUR in circulation - which is far larger than the circulation of DEM banknotes used to be - and the lifting of reporting requirements, it will certainly not be easy to obtain data on the circulation of EUR outside the euro area.