

Box I**Adjustment of M3 for holdings of negotiable instruments by non-residents of the euro area**

The broad monetary aggregate M3 includes negotiable instruments, such as money market fund shares/units, money market paper and debt securities with an initial maturity of up to two years. Prior to the start of Stage Three of Economic and Monetary Union (EMU), there was little evidence of significant holdings by non-residents of the euro area of such instruments issued by MFIs located in the euro area. Therefore, and because of the difficulty of identifying holders of negotiable instruments, the decision was taken to include in M3 all short-term negotiable instruments issued by euro area MFIs, excluding those instruments held by euro area MFIs themselves. From the start of Stage Three, however, non-resident purchases of negotiable instruments issued by euro area MFIs and included in M3 have expanded rapidly, giving rise to a sizeable upward distortion of M3 (see the box on "Measurement issues related to the inclusion of negotiable instruments in euro area M3" on page 9 of the May 2001 issue of the ECB Monthly Bulletin).

Accordingly, the Eurosystem has established a reporting system for non-resident holdings of negotiable instruments. Holdings of money market fund shares/units by investors resident outside the euro area have been excluded from M3 since May 2001. In a second step, starting from the release of monetary statistics for October 2001, M3 will exclude holdings by non-residents of the euro area of short-term debt instruments (i.e. money market paper and debt securities issued with an initial maturity of up to two years) which have accounted for an upward distortion of the annual growth rate of M3 of around three-quarters of a percentage point in recent months. M3 will then exclude all non-euro area holdings of negotiable instruments, with a back series for the adjustments available from January 1999.

This box aims at providing additional information on the economic background to the adjustment for non-resident holdings of negotiable instruments and on the data sources used.

Non-resident holdings of shares and units issued by money market funds

The issuance of shares and units by money market funds is mainly concentrated in France, followed by Ireland, Luxembourg and Spain (see the table below). In France and Spain, the market for shares and units of money market funds can be described as primarily domestic. By contrast, in Ireland and, to a lesser extent, in Luxembourg, foreign investors play a considerable role in this market.

Share of amounts outstanding of shares and units of money market funds issued by MFIs resident in country x in the euro area total in September 2001

(as a percentage of amount outstanding)

Country	Share in %
Belgium	0
Germany	6
Greece	0
Spain	8
France	50
Ireland	18
Italy	4
Luxembourg	13
The Netherlands	0
Austria	0
Portugal	0
Finland	1

Source: ECB.

The substantial holdings by non-residents of the euro area of shares and units issued by money market funds in Ireland can be explained by the special conditions for mutual funds that are located in the International Financial Services Centre. The Irish authorities grant tax advantages when mutual funds deal with non-resident customers. US and British mutual funds in particular conduct business from Ireland, probably to a large extent with their domestic customers.

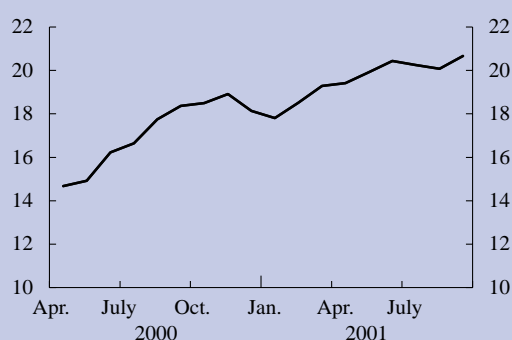
Following the implementation of national legislation on the identification of money market funds, the Central Bank of Ireland started to collect data on money market funds in April 2000. In the course of 2000 and especially in the first quarter of 2001, holdings of shares and units of money market funds

in Ireland by non-residents of the euro area increased substantially. This development might have been linked to the uncertainties surrounding the developments in the international stock markets and the flattening yield curve in the euro area in 2000.

A large number of financial institutions based outside the euro area have established mutual funds also in Luxembourg. This explains the relatively high share of holdings by non-residents of the euro area of shares

Chart A: Share of non-resident holdings in total amounts outstanding of shares and units of money market funds

(percentages)



Source: ECB.

and units issued by Luxembourg money market funds. However, by contrast with Ireland, such holdings of shares and units in Luxembourg money market funds did not increase substantially between mid-2000 and mid-2001.

Reflecting the structure of their markets, national central banks use different data sources to estimate holdings of shares and units in money market funds by non-residents of the euro area. Information on the final holder is directly available from the management companies of the money market funds (in most cases credit institutions) in several euro area countries, including Ireland. For a few euro area countries, custodian surveys or balance of payments data are used to identify holdings of non-residents of the euro area.

The growing importance of non-resident holdings of short term MFI debt instruments

Issuance of the short-term debt instruments issued by euro area MFIs has increased strongly since the start of Stage Three of EMU. To a considerable extent, this expansion has been driven by the demand of non-residents of the euro area. During 1999 and in the first half of 2000, purchases by non-residents were mainly of short-term debt instruments issued by German MFIs. Issues of short-term securities by MFIs in France, Ireland, Luxembourg, the Netherlands and Austria subsequently also grew strongly, matched to a large extent by demand from outside the euro area.

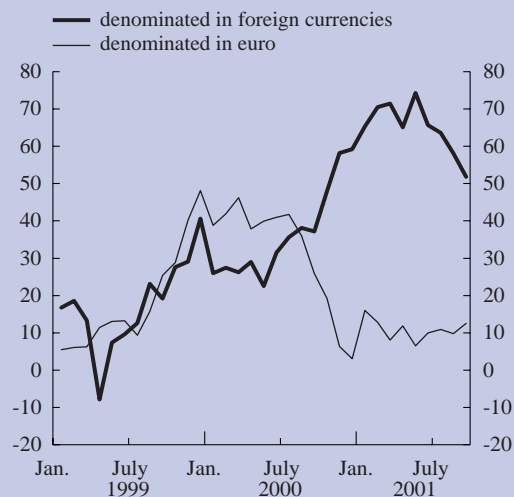
According to the available information, investors outside the euro area bought in particular instruments denominated in foreign currency, which have grown rapidly especially since the second half of 2000 (see Chart B), possibly linked to the increase in international debt issuance programmes of euro area credit institutions with high investor grades. These issuance programmes of “high quality debt” are clearly targeted at an international investor base that includes not only euro area investors but also investors resident outside the euro area and currently cover most of the issuance of short-term debt instruments denominated in foreign currencies. There is some evidence that in particular investors located in East Asia have a strong interest in these securities.

Acquiring reliable information on the residency of the final investor in short-term debt instruments is a complex undertaking, as debt instruments are often marketed via institutions located outside the euro area (e.g. in London) and may be traded on secondary markets.

For countries in which such instruments are aimed at international investors, the ESCB collects information on the residency of the holder (euro area or non-euro area) from international security settlement systems (institutions that hold and administer securities and enable securities transactions to be processed by book entry). These international securities settlement systems provide aggregated information on the residency of

Chart B: Annual rate of growth of amounts outstanding of short-term debt instruments broken down by currency of denomination

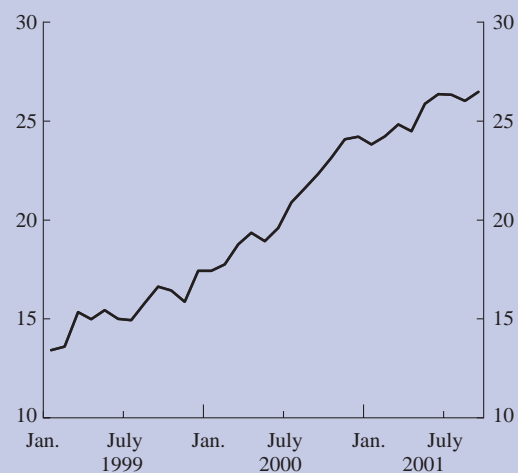
(annual percentage changes)



Source: ECB.

Chart C: Share of non-resident holdings in total amounts outstanding of short-term debt instruments

(percentages)



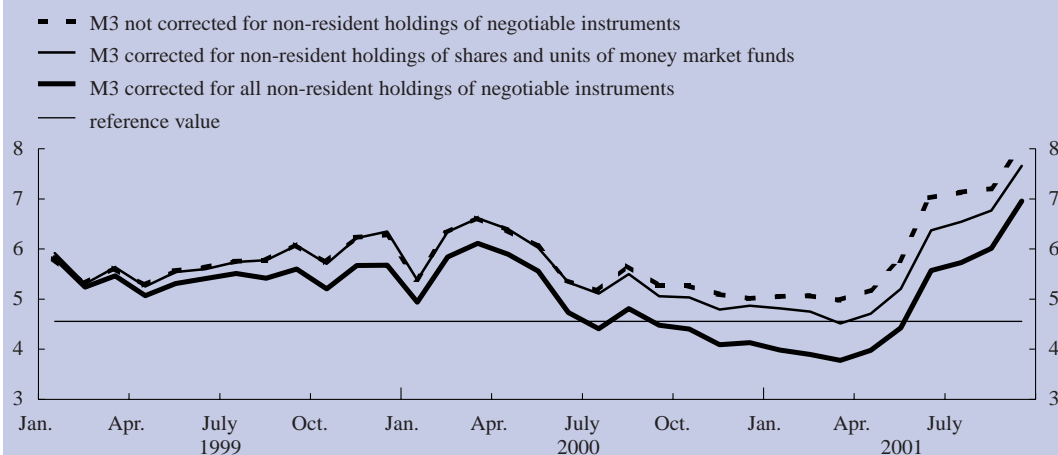
Source: ECB.

account holders of securities on a monthly basis. The largest part of non-resident holdings of short-term debt instruments is compiled on the basis of this information. Quality checks performed on these data in collaboration with credit institutions have confirmed the high quality of the data. For euro area countries with a mainly domestic market for short-term debt instruments issued by MFIs, residency information on holders is collected via sources such as custodian surveys or balance of payments data. Overall, the data on non-resident holdings of negotiable instruments are now considered to be of a quality comparable to that of the MFI balance sheet statistics. Chart C shows how non-resident holdings of short-term debt instruments have grown in relation to total amounts outstanding of these instruments since January 1999.

With regard to the impact of non-resident holdings on monetary developments, Chart D illustrates that the annual growth of M3 adjusted for all non-resident holdings of negotiable instruments showed a significantly

Chart D: Annual rates of growth of M3

(annual percentage changes)



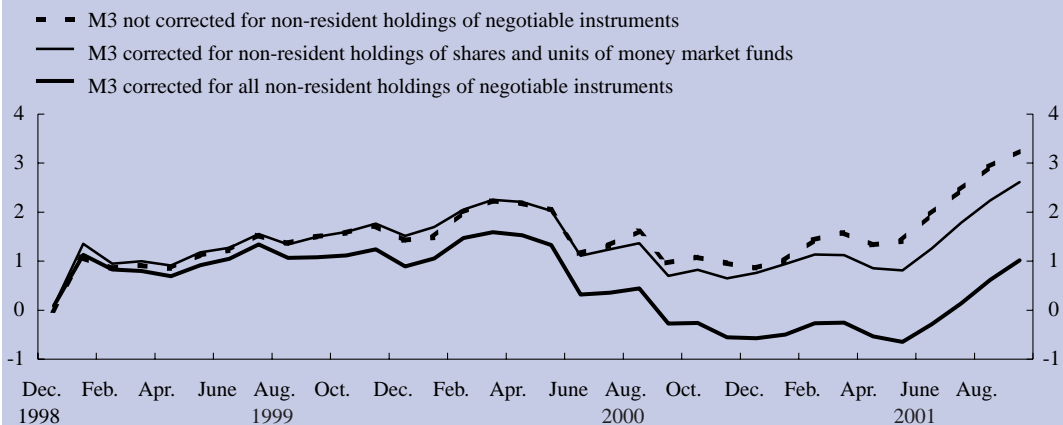
Source: ECB.

more pronounced slowdown between the spring of 2000 and early 2001 than the unadjusted or partly adjusted series and stood below the reference value for several months. Since then the fully adjusted M3 has accelerated much like the other measures (reflecting the effect of higher prices for energy and food on the demand for transaction balances and portfolio shifts triggered by the lasting weakness in stock markets, the comparatively flat yield curve up to August and, most recently, the increased financial market uncertainty following the events of 11 September).

The impact of the adjustment for non-euro area holdings of negotiable instruments is much stronger when measures that take into account the accumulation of strong or weak monetary growth in the past are analysed. Chart E illustrates these differences by showing a measure of the real money gap. The real money gap is constructed as the difference between the actual stock of real M3 (nominal M3 deflated by HICP) and the stock of real M3 implied by monetary growth at the reference value and HICP inflation in line with the definition of price stability from December 1998 onwards. When interpreting the chart, the caveats of this measure, like the somewhat arbitrary choice of the base period, should be borne in mind. The real money gap for M3, adjusted for the non-resident holdings of negotiable instruments, decreased substantially up to late 2000, remained slightly negative thereafter and has increased recently, reflecting the portfolio shifts mentioned above.

Chart E: Measures of the real money gap

(as a percentage of the stock of M3)



Source: ECB.

The ECB has assigned monetary aggregates a prominent role in its monetary policy strategy. With the implementation of the adjustments described in this box, the measurement of M3 will be more in line with the ECB's originally intended definition of this aggregate, which was to include only monetary holdings of euro area residents (see the article in the February 1999 issue of the ECB Monthly Bulletin entitled "Euro area monetary aggregates and their role in the Eurosystem's monetary policy strategy"). This definition, focusing on the monetary holdings of euro area residents, was chosen because it can be assumed that the holdings of non-residents of the euro area of short-term assets with euro-area MFIs bear little relation with the transaction balances needed for consumption in the euro area. The definition is backed by empirical studies which confirm that the exclusion of these non-resident holdings safeguards the stability of the demand for M3 and the leading indicator properties of M3 for future inflation. The adjustments now undertaken will therefore improve the information content of M3 for monetary policy.