Box 1

TRACKING EXTRAORDINARY PORTFOLIO SHIFTS INTO MONEY DURING THE PERIOD OF FINANCIAL TURMOIL

The financial market turmoil observed since August 2007 and its intensification in mid-September 2008 have increased uncertainty regarding future financial and economic developments. This is reflected, for instance, in the protracted decline observed in consumer confidence, which has fallen sharply to reach unprecedented levels (see Chart A). In the period 2001-03, another episode characterised by such increases in uncertainty and declines in confidence, euro area residents showed a strong preference for safe, liquid assets – a preference which was visible in extraordinary portfolio shifts into M3.[1] From a policy perspective, the tracking of such shifts is important, as they can be seen as positive money demand shocks that are not directly linked to risks to price stability. Against that background, this box looks at whether the current period of financial turmoil has given rise to similar shifts.

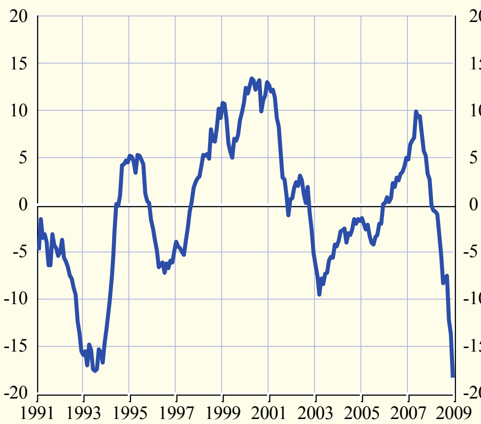
The period between mid-2007 and the third quarter of 2008

One possible indication of extraordinary portfolio shifts is a significant increase in the share of monetary assets in outstanding amounts for the total financial assets of the money-holding sector (see Chart B). In the period 2001-03 the increase observed in this share predominantly reflected the sale of foreign equity holdings and the repatriation of funds following the bursting

1 For a detailed assessment of this period, see the article entitled "Monetary analysis in real time" in the October 2004 issue of the Monthly Bulletin.

Chart A Consumer confidence

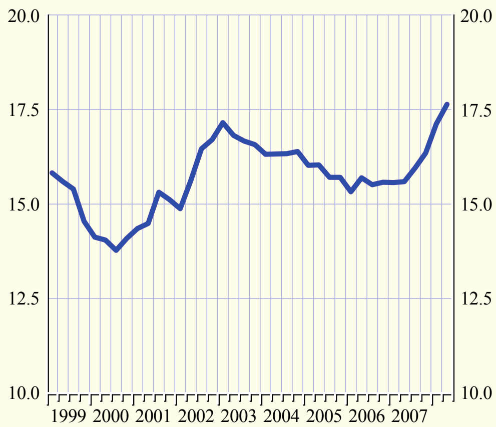
(mean-centred percentage balances; monthly data)



Source: European Commission.

Chart B M3 holdings as a share of outstanding amounts for the total financial assets of the money-holding sector

(percentages; not seasonally adjusted; quarterly data)

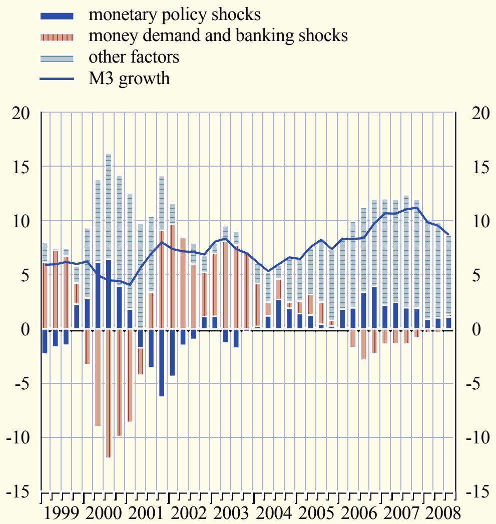


Source: ECB estimates.

of the new economy bubble, which brought about a shift in investors' risk preferences and prompted safe-haven flows. By contrast, the increase in this share between mid-2007 and mid-2008 reflected portfolio reallocations comprising shifts from longer-term assets into money that were motivated by remuneration considerations in the context of the flat yield curve.[2] In particular, short-term time deposits offered relatively attractive levels of remuneration, which increased further as the financial turmoil continued, with MFIs seeking explicitly to strengthen their deposit-based funding.

Chart C Decomposition of annual M3 growth

(annual percentage changes; contributions in percentage points)



Source: ECB estimates.
Notes: For a further breakdown of the other factors, see Box 2 of the article entitled "Interpreting monetary developments since mid-2004" in the July 2007 issue of the Monthly Bulletin.

In real time, the assessment of the various factors driving shifts into monetary assets relies on a detailed institutional analysis of quantities and prices. Looking backwards, this analysis is complemented by a structural decomposition of annual M3 growth based on a dynamic stochastic general equilibrium model with financial frictions and an explicit banking sector.[3] Such a model aims to measure in a simplified and stylised way the fundamental causes of monetary developments. It measures, among other things, factors that have an indirect impact on money through their effect on macroeconomic variables such as income, consumption and inflation, which are important determinants of money demand. Productivity shocks or changes in money holders' preference for liquidity are a case in point. Finally, such a model needs to assume monetary policy's response to economic and monetary developments in the form of a simple estimated reaction function linking short-term interest rates to a number of endogenous variables.

Although any such model is inevitably too stylised to capture all elements of a broad-based monetary analysis, the model-based decomposition of past M3 growth is currently in line with the broad real-time assessments carried out for the periods in question. In this respect, the decomposition of data up until the third quarter of 2008 indicates that the strong M3 growth observed between late 2007 and the third quarter of 2008 was influenced to an important extent by "monetary policy shocks", which flattened the yield curve, leading to the rebalancing of wealth portfolios by means of the reallocation of assets from outside M3 into instruments included in M3-M1 (see Chart C). At the same time, the contributions of money demand and banking shocks (which should capture, inter alia, safe-haven flows into monetary assets) remained negative in late 2007 and early 2008.

2 See Box 2, entitled "Recent shifts between different categories of financial asset held by households", in the June 2008 issue of the Monthly Bulletin. Alternatively, see Box 1, entitled "Underlying monetary dynamics: concept and quantitative illustration", in the May 2008 issue of the Monthly Bulletin.

3 This model is similar to that presented in Box 2 of the article entitled "Interpreting monetary developments since mid-2004" in the July 2007 issue of the Monthly Bulletin. It is described in Christiano L., R. Motto and M. Rostagno (2003), "The Great Depression and the Friedman-Schwartz Hypothesis", Journal of Money, Credit and Banking 35(6), December. A recent analysis is presented in Christiano L., R. Motto and M. Rostagno (2008), "Shocks, structures or policies? The Euro Area and US after 2001", Journal of Economic Dynamics and Control, August, 32(8), pp. 2467-2506.

These only became marginally positive in the third quarter of 2008. On balance, this suggests that until the third quarter of 2008 monetary dynamics were driven by portfolio reallocations motivated by yield curve effects, rather than by extraordinary portfolio shifts triggered by an increased preference for liquidity. This is in stark contrast to the situation during the period 2001-03.

The period between mid-September and November 2008

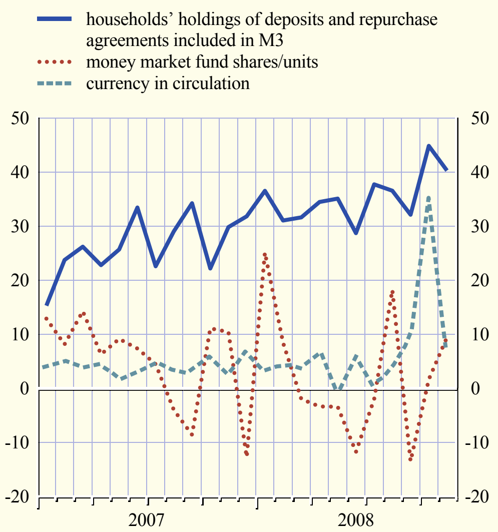
Following the default of Lehman Brothers in mid-September 2008, financial and economic uncertainty increased strongly. This may have led to safe-haven flows becoming a driver of monetary developments. The real-time assessment of this question relies on a detailed analysis of the components and counterparts of M3, as the model-based decomposition of M3 growth described earlier cannot be used, not least owing to a lack of timely data.

Extraordinary portfolio shifts are likely to be visible in the safe-haven flows of households, particularly in the light of the renewed government guarantees announced in October for MFI deposits. The broadest sub-component of M3 that allows the monitoring of households' portfolio allocation is short-term deposits and repurchase agreements. The seasonally adjusted monthly flows observed for this sub-component in October and November were indeed somewhat larger than in previous months, although neither "eyeballing" nor statistical tests suggest that the difference was extraordinary. However, two components of M3 that are potentially important recipients of households' safe-haven flows – money market fund shares/units and currency in circulation – are not included in this sectoral sub-component.

Owing to the relatively low cost of switching between investment fund shares/units and money market fund shares/units, shifts into money market fund shares/units played a significant role in the safe-haven flows observed during the period 2001-03. This has not been observed during the current financial turmoil, with the relatively volatile developments in money market fund shares/units instead reflecting developments in investors' perception of the risks associated with this instrument, as well as funds' portfolio allocation behaviour (see Chart D). As regards currency in circulation, the monthly flow for this component increased significantly (by around €35 billion) in October, which at first glance supports the view that households effected substantial safe-haven flows. However, there is information pointing to significant demand for euro banknotes on the part of non-euro area residents in October and November, with the result that, to a substantial extent, these extraordinary increases in currency reflect the fact that currency cannot be recorded separately for residents and non-residents, rather than portfolio shifts effected by euro area households.

Chart D Monthly flows into selected M3 components

(EUR billions; seasonally adjusted; monthly data)



Sources: ECB and ECB estimates.

In conclusion, there are some initial signs that the intensification of the financial market turmoil observed since the default of Lehman Brothers in mid-September led to safe-haven flows into money in October and November 2008. While it is still too early for quantitative estimates, this issue needs to be monitored in the coming months. However, as the share of monetary assets in total financial assets is already considerably larger than at the start of earlier periods characterised by portfolio shifts, this may, all things being equal, limit somewhat the size of any future shifts.