Box 1

RECENT LIQUIDITY OPERATIONS AND THEIR IMPACT ON MONETARY AGGREGATES

Since the onset of the financial turmoil in August 2007 the ECB has undertaken a number of liquidity operations with a view to alleviating money market tensions. These tensions have emerged as a consequence of heightened uncertainty regarding the nature and extent of financial intermediaries' exposure to credit and liquidity risks, notably stemming from the US sub-prime mortgage market and associated derivative instruments. The tensions in the money markets are thus a symptom of the financial turmoil.

The main feature of the ECB's recent liquidity operations has been the decision to systematically allot more than the benchmark amount[1] in the Eurosystem's one-week main refinancing operations (MROs) and to increase the share of liquidity provided via longer-term refinancing operations (LTROs), which have a maturity of around three months.[2] This box examines the relationship between these open market operations and the recent strong growth in broad monetary aggregates and credit. In order to analyse this relationship, both direct and indirect effects need to be considered.

All open market operations conducted by the ECB as part of its implementation of monetary policy (including the operations conducted since the start of August to address money market tensions) are transactions between the Eurosystem and euro area credit institutions (the most important subset of the MFI sector, which comprises mainly the Eurosystem, credit institutions and money market funds). These transactions create deposits with the Eurosystem that are held by individual credit institutions and can be circulated among them. In the context of the consolidated MFI balance sheet, all inter-MFI positions, as well as positions between MFIs and the Eurosystem, are netted out. Given that the consolidated MFI balance sheet is the basis for the compilation of monetary aggregates, transactions between the Eurosystem and its counterparties in the form of monetary policy operations cannot have any direct impact on M3, irrespective of their volume.

Furthermore, the operations conducted by the ECB since early August in order to contain money market tensions have not changed the total amount of liquidity provided within each of the maintenance periods for the fulfilment of required reserves,[3] but rather the timing of the provision of liquidity within the maintenance period and the maturity structure of the Eurosystem's outstanding operations.

1 The benchmark is the amount of liquidity which would permit the fulfilment of reserve requirements at an aggregate level in a smooth manner over the remaining days of the reserve maintenance period, taking into account, inter alia, forecasts for autonomous factors.

2 For a detailed description of the ECB's liquidity operations in the first two months of the turmoil, see Box 3, entitled "The ECB's additional open market operations in the period from 8 August to 5 September 2007", in the September 2007 issue of the Monthly Bulletin. For the subsequent months, see Box 3, entitled "Liquidity conditions and monetary policy operations in the period from 8 August to 13 November 2007", in the December 2007 issue of the Monthly Bulletin.

3 For a more detailed presentation of the current operational framework, see the article entitled "Changes to the Eurosystem's operational framework for monetary policy" in the August 2003 issue of the Monthly Bulletin.

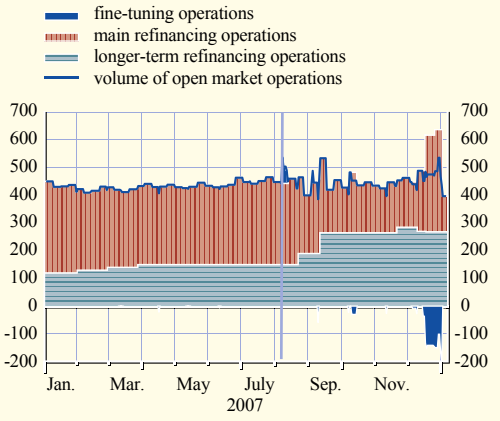
Charts A and B illustrate these points. Chart A shows that the net volume of outstanding open market operations has not increased, on average, compared with the pre-turmoil period, remaining at around €450 billion. This was also the case for the December maintenance period, during which fine-tuning operations absorbed part of the additional liquidity provided for the end of the year via MROs. Chart A also shows how the share of LTROs in outstanding open market operations has increased at the expense of MROs.

Chart B illustrates the change in the timing of the provision of liquidity over the maintenance period, as measured by the daily reserve surplus[4]. By contrast with normal circumstances (represented in the chart by average behaviour between December 2004 and August 2007), the daily reserve surplus has been large and positive in the first part of the maintenance periods between August 2007 and January 2008, and consequently negative over the remainder of those periods in order to achieve a balanced position on average over the maintenance period as a whole.

While the ECB's open market operations do not have a direct impact on money and credit aggregates, they may have affected monetary developments indirectly through their impact on short-term money market interest rates and the pass-through of these rates to bank lending and deposit rates. Such indirect effects, which work through the opportunity cost of holding money and the cost of external financing, reflect demand by households and firms for money and bank credit.

Chart A Structure of overall liquidity provision by type of operation

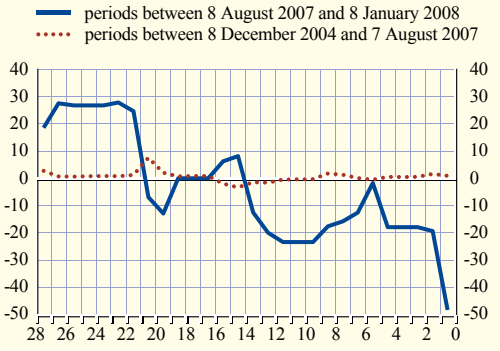
(EUR billions)



Source: ECB.
Note: Last observation is 8 January 2008. The vertical line marks 9 August 2007.

Chart B Average reserve surplus for each day of the maintenance period

(EUR billions)



Source: ECB.
Note: The horizontal axis represents the number of days until the end of the maintenance period.

Yet, it should be noted that the primary aim of the ECB's open market operations during the recent financial turmoil has been – as under normal circumstances – to keep very short-term money market interest rates (such as the EONIA) close to the minimum bid rate in MROs, which is the main signal of the monetary policy stance determined by the Governing Council. To the extent that the changes in the timing and maturity structure of operations have helped to re-establish "normal" conditions at the very short end of the money market yield curve (see Chart C), these have served to offset any indirect influence on monetary developments caused by the financial turmoil through developments in very short-term interest rates.

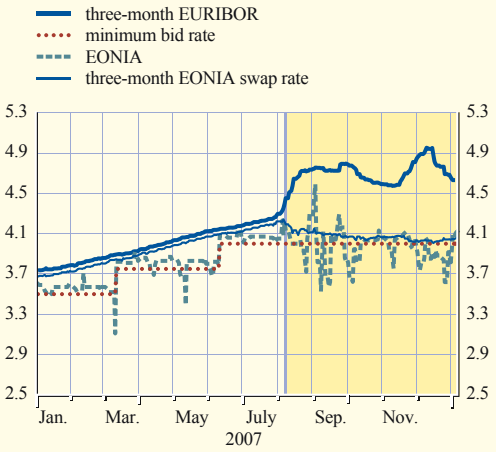
4 On a given day, the daily reserve surplus is the current account holdings in excess of the minimum reserve requirement.

Under normal circumstances, the signal embodied in very short-term interest rates is then transmitted smoothly along the money market yield curve to longer maturity rates that are more relevant for private sector spending and pricing decisions.[5]

Chart C also shows that the spread between the three-month EONIA swap (a measure of expected developments in the EONIA over the next three months) and the three-month EURIBOR (an unsecured interbank interest rate) remained large between August and December 2007 as tensions persisted in the money market at longer maturities, implying that the transmission of the monetary policy signal along the money market yield curve has been distorted. Higher market rates at term maturities in the unsecured interbank market will, to a certain extent, influence the cost of bank funding, thus potentially also affecting the cost of bank borrowing for firms and households. A rise in borrowing costs is likely to have a dampening impact on loans and thus has the potential to influence monetary dynamics.

Chart C Key money market interest rates

(percentages per annum)



Source: ECB.
Note: The shaded area marks the period after 9 August 2007.

5 For more information, see Box 2, entitled "Volatility of the overnight interest rate and its transmission along the money market yield curve", in the August 2007 issue of the Monthly Bulletin.