

#### Box 4

### LIQUIDITY CONDITIONS AND MONETARY POLICY OPERATIONS IN THE PERIOD FROM 14 NOVEMBER 2007 TO 12 FEBRUARY 2008

This box describes the ECB's liquidity management during the three reserve maintenance periods ending on 11 December 2007, 15 January and 12 February 2008. The whole period was also affected by the tensions in the euro money market that started in August 2007. As in the preceding maintenance periods, the ECB addressed these tensions by taking various measures to adapt the timing and maturity of its liquidity operations in the course of the reserve maintenance periods. Prior to the start of the money market tensions, the ECB supplied liquidity in a way that allowed counterparties to hold more or less the same amount of aggregate liquidity on each day of a reserve maintenance period. However, since the start of the turmoil, the ECB has increased the supply of liquidity at the beginning of the maintenance period and reduced it towards the end. This "frontloading" of liquidity, which results from allotting more than the benchmark amount in main refinancing operations (MROs), has enabled counterparties to fulfil their reserve requirements somewhat earlier in the maintenance period, but has not changed the average supply of liquidity over the entire maintenance period. Several statements communicated via news wire services explained the actions of the ECB.<sup>1</sup>

#### Liquidity needs of the banking system

In the three maintenance periods under review, banks' average liquidity needs rose by €1.2 billion by comparison with the preceding three periods. This effect can be explained mainly by a €5.8 billion increase in required reserves and a €0.1 billion increase in excess reserves, while autonomous factors were substantially lower, declining by €4.7 billion.

<sup>1</sup> The full list of statements communicated by the ECB can be found at <http://www.ecb.europa.eu/mopo/implement/omo/html/communication.en.html>

Total liquidity needs resulting from reserve requirements stood at €199.1 billion and those resulting from autonomous factors averaged €249.1 billion (see Chart A).

The level of excess reserves (i.e. the daily average of current account holdings in excess of reserve requirements) increased slightly in the three periods under review to an average of €0.93 billion (see Chart B), somewhat above the average (€0.75 billion) seen since the changes to the monetary policy implementation framework in March 2004. This increase was driven mainly by the excess reserve holdings in the maintenance period covering the end of the year.

### Liquidity supply and interest rates

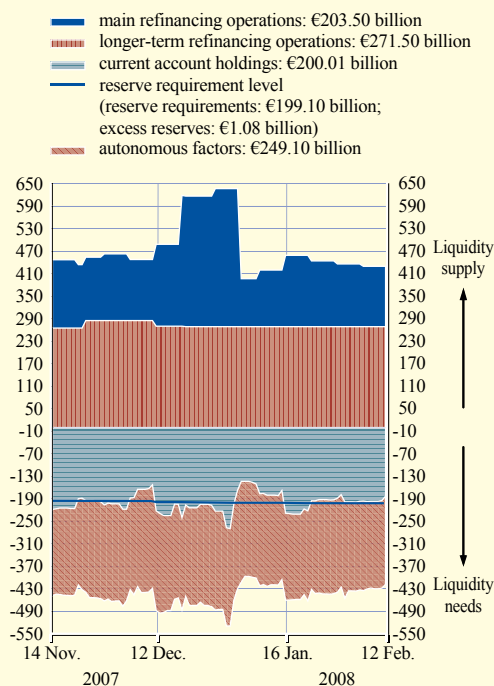
The total volume of outstanding open market operations (denominated in euro) increased only slightly as a result of the increase in reserve requirements. The two supplementary longer-term refinancing operations (LTROs) that were carried out in August and September, for amounts of €40 billion and €75 billion respectively, were rolled over when they matured in November and December, with a slight change to the amount, which was set at €60 billion in each of the new operations. The maturity structure of the outstanding open market operations therefore remained broadly unchanged during the period under review, with LTROs and MROs accounting for around 60% and 40% respectively of the total amount of liquidity supplied.

On 12 December 2007 the ECB announced that, in connection with the USD Term Auction Facility offered by the Federal Reserve System, it would launch two USD liquidity-providing operations with maturities of 28 and 35 days respectively on 17 and 20 December. These operations, which were repeated in January (and thereafter discontinued), did not affect the supply of euro liquidity.

During the maintenance periods ending in December and January, the EONIA displayed greater volatility than in recent years (see Chart C). In the following maintenance period, which ended on 12 February, the EONIA was remarkably stable, apart from a somewhat stronger end-of-month effect. Owing to counterparties' very competitive bidding in the MROs, the spread between the marginal rates in these operations (the lowest rates at which bidders receive liquidity) and the minimum bid rate was, at times, relatively large, but started to decline towards the end of the period under review.

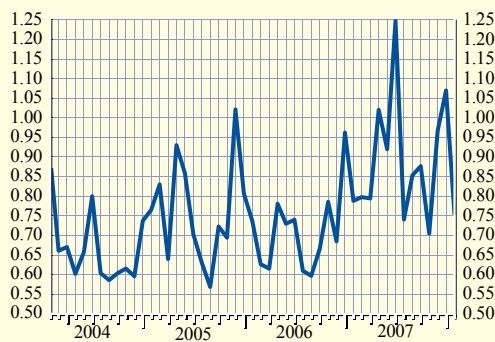
**Chart A Liquidity needs of the banking system and liquidity supply**

(EUR billions; daily averages for the whole period are shown next to each item)



**Chart B Excess reserves <sup>1)</sup>**

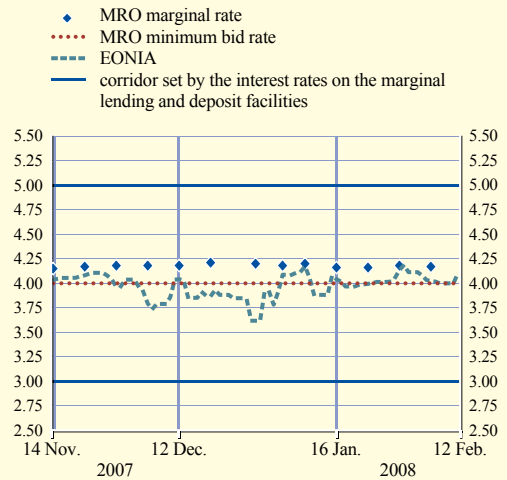
(EUR billions, average level in each maintenance period)



Source: ECB.  
1) Banks' current account holdings in excess of reserve requirements.

**Chart C The EONIA and the ECB interest rates**

(daily interest rates in percentages)



Source: ECB.

### Reserve maintenance period ending on 11 December

In this maintenance period, the ECB continued its policy of frontloading the liquidity supply and allotted €20 billion and €18.5 billion above the benchmark amount in the first two MROs. During the first two weeks, the EONIA stayed above 4% but showed an upward trend, which was probably also linked to the approaching end of the year. Against this background, the ECB communicated on 23 November that it would reinforce its policy of frontloading at least until the end of the year. Accordingly, it allotted €30 billion above the benchmark amount in the next MRO and the EONIA declined to around 4% in the third week of the maintenance period.

Moreover, on 30 November, the Eurosystem announced its decision to extend the maturity of the penultimate MRO in 2007 up to two weeks in order for this operation to cover the year-end, thus making banks less reliant on the subsequent MRO on 28 December for satisfying their liquidity needs for the end of the year.

Following the allotment of €10 billion above the benchmark in the last MRO of the maintenance period, the EONIA declined to a level significantly below the minimum bid rate, and on 7 December the ECB launched a liquidity-absorbing fine-tuning operation for an amount of up to €8 billion with a maturity of five days. Subsequently, the EONIA stabilised at a level closer to the minimum bid rate and stood at 3.857% on the penultimate day of the maintenance period. On the last day of the maintenance period, the ECB restored balanced liquidity conditions by conducting a liquidity-draining fine-tuning operation for an amount of €21 billion with a rate of 4.00%. The maintenance period ended with a very small net recourse to the marginal lending facility of €23 million and the EONIA at 4.038%.

### Reserve maintenance period ending on 15 January

On 11 December, in the first MRO of this maintenance period, the ECB allotted €35 billion above the benchmark amount. The EONIA declined to a level of around 3.80% during the week and on 17 December, €36 billion was absorbed through a fine-tuning operation with overnight maturity. On the same day, the EONIA stood at 3.912% and the ECB announced its decision to allot, in the next day's exceptional two-week MRO, all bids at rates equal to or above the weighted average rate of allotment of the previous MRO, i.e. 21 basis points above the minimum bid rate. The aim of this exceptional measure was to reduce the continued tensions in the money market ahead of the end of the year. The significance of these tensions was reflected in market rates and in the fact that counterparties bid for an amount of €348 billion in the two-week operation, which was €168 billion more than the benchmark amount. Over the next few days, the ECB absorbed around €150 billion on a daily basis through a series of liquidity-absorbing fine-tuning operations. The EONIA remained at a level of around 3.85% until Friday 28 December when it declined to 3.618% after €20 billion was allotted in the last MRO of the year. On 31 December the EONIA stood at 3.916% and hence, for the first time since 1999, was below the minimum bid rate on the last trading day of the year.

In the remaining two MROs of the maintenance period, the allotment amounts above the benchmark were reduced to €35 billion and €4 billion respectively, resulting in a further reduction in the liquidity surplus that had accumulated over the Christmas period. Consequently, the EONIA gradually increased to a level above the minimum bid rate and temporarily reached a high of 4.174% on 9 January, before falling back to 3.881% on 14 January. The following day, the last of the maintenance period, a liquidity surplus of €20 billion was absorbed through a fine-tuning operation. The maintenance period ended with a small net recourse to the marginal lending facility of €200 million and the EONIA was set at 4.078%.

### Reserve maintenance period ending on 12 February

Shortly before the start of the maintenance period ending on 12 February, the ECB announced its intention to continue its policy of frontloading the supply of liquidity in the course of the maintenance period for as long as necessary. Accordingly, €25 billion more than the benchmark amount was allotted in the first MRO, and the allotment above the benchmark was gradually reduced to €4 billion in the last MRO of the maintenance period. Throughout the maintenance period, the EONIA remained within a range of a few basis points around the minimum bid rate, apart from the last few days of January when it peaked at 4.187%. On the last day of the maintenance period, the ECB absorbed €16 billion through a fine-tuning operation. The period ended with a small net recourse to the deposit facility of €1.0 billion and the EONIA at 4.103%.