

Box 2

**LIQUIDITY CONDITIONS AND MONETARY POLICY OPERATIONS IN THE PERIOD FROM 8 AUGUST TO 13 NOVEMBER 2007**

This box describes the ECB's liquidity management during the three reserve maintenance periods ending on 11 September, 9 October and 13 November 2007. This period was characterised by tensions in the euro money market, which the ECB addressed by providing liquidity earlier than usual within those reserve maintenance periods through its main refinancing operations (MROs), as well as by conducting several fine-tuning operations and two supplementary longer-term refinancing operations (LTROs). The average liquidity supply in those maintenance periods was not affected by these measures, as the additional liquidity provided early in each maintenance period was compensated for by smaller allotment volumes and/or liquidity-absorbing fine-tuning operations later in the maintenance period. Several statements communicated via news wire services explained the actions of the ECB.<sup>1</sup>

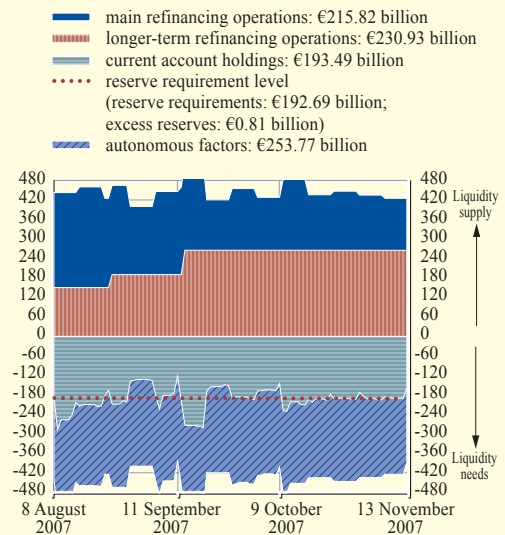
**Liquidity needs of the banking system**

In the three maintenance periods under review, banks' average liquidity needs rose by €3.5 billion by comparison with the preceding three periods. This effect can be explained mainly by a €4.4 billion increase in required reserves, while autonomous factors and excess reserves were slightly lower, declining by €0.7 billion and €0.2 billion respectively. Total liquidity needs resulting from reserve requirements stood at €192.7 billion and those resulting from autonomous factors averaged €253.8 billion (see Chart A).

The level of excess reserves (i.e. the daily average of current account holdings in excess of reserve requirements) remained broadly stable in the three periods under review at an average of €0.81 billion (see Chart B). This was broadly

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

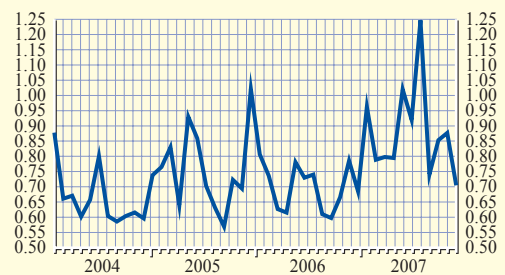
(EUR billions; daily averages for the whole period are shown next to each item)



Source: ECB.

**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.

<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>

in line with the average (€0.75 billion) seen since the changes to the monetary policy implementation framework in March 2004.

### Liquidity supply and interest rates

The total volume of outstanding open market operations increased only slightly as a result of the increase in reserve requirements. At the same time, the maturity of the outstanding open market operations changed substantially over the review period, as the volume of outstanding LTROs increased significantly relative to the volume of the MROs.

In the maintenance period ending on 7 August (the last before the onset of the turmoil) the total outstanding volume of liquidity provided via LTROs was €150 billion. This figure rose to €265 billion in the maintenance period ending on 13 November on account of the allotment, in August and September, of two supplementary LTROs of €40 billion and €75 billion respectively. At the same time, the average liquidity volume provided via MROs was reduced accordingly from €301.7 billion to €180.2 billion. As a result, the share of refinancing provided through LTROs increased from 33% to 60%.

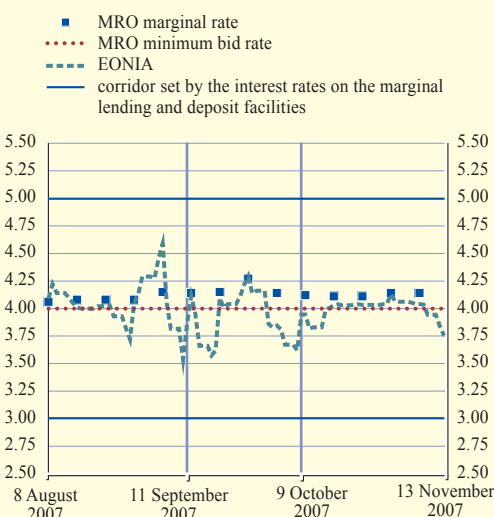
As illustrated by Chart C, the level of volatility of the EONIA was considerably higher than in recent years during the period under review. Owing to counterparties' very competitive bidding in the MROs, the spread between the marginal rates in these operations (the lowest rates at which bidders receive liquidity) and the minimum bid rate was, at times, fairly large.

### Reserve maintenance period ending on 11 September

On the morning of 9 August tensions in some segments of the US dollar-denominated money market led to a strong increase in banks' demand for current account holdings with the Eurosystem. Consequently, the overnight rate rose to around 4.60%. At the same time, the trading volume in the interbank market became very thin. The ECB reacted immediately by launching a liquidity-providing fine-tuning operation in the form of a fixed rate tender at a rate of 4.00% with overnight maturity and pre-announced full allotment of the bids submitted by counterparties.<sup>2</sup> As a result, €94.8 billion of liquidity was provided (€27 billion more than the second-largest fine-tuning operation to date, which took place on 12 September 2001). The overnight rate normalised immediately and was quoted at around 4.05% for the rest of the day, while the EONIA still ended the day at 4.22%.

Chart C The EONIA and the ECB interest rates

(daily interest rates in percentages)



Source: ECB.

<sup>2</sup> The fine-tuning operations carried out in August are described in more detail in 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.

On the following three business days the ECB conducted further liquidity-providing fine-tuning operations with overnight maturity, although this time through variable rate tender procedures. The amounts provided on those days decreased from €61.1 billion on 10 August to €47.7 billion on 13 August and €7.7 billion on 14 August, while the EONIA decreased steadily to 4.05%. On 14 August the ECB also allotted the regular MRO. The benchmark amount for this operation took into account the large liquidity surplus that had accumulated since the start of the maintenance period because of the fine-tuning operations and was therefore relatively small. Against this background and in order to ease the tensions still prevailing in the short-term money market, the ECB allotted €73.5 billion above the benchmark.

Since the ECB was still aiming for balanced liquidity conditions at the end of the maintenance period, the amount allotted above the benchmark was reduced to €46 billion in the MRO allotted on 22 August. On 23 August the ECB also allotted a supplementary longer-term refinancing operation with a maturity of three months for an amount of €40 billion, further supporting the normalisation of the functioning of the euro money market. As a result of the ample liquidity conditions following the provision of these large amounts of liquidity in addition to the usual benchmark amount, the EONIA fell to 3.72% on 28 August.

In order to gradually reduce the large reserve surplus that had accumulated by this point, the ECB further reduced – to €14.5 billion – the amount of liquidity allotted in addition to the benchmark in the following MRO. On 29 August, the settlement day of the MRO, the EONIA rose to 4.05%. However, as a result of the reduction in the amount allotted above the benchmark, daily current account holdings dropped to a level of €50-60 billion below the reserve requirements for that week. Together with the usual end-of-month effect, this development caused the EONIA to rise further to stand at 4.458% on 4 September.<sup>3</sup> On this day the ECB allotted €5.0 billion above the benchmark in the final MRO of the period. When the EONIA continued to rise, reaching 4.588% on 5 September, the ECB injected €42.2 billion of liquidity on 6 September through an overnight fine-tuning operation without a pre-announced volume. The upward trend in the overnight rate was reversed and the EONIA fell to 3.538% on 10 September. On the following day, which was the last day of the period, the ECB restored broadly balanced liquidity conditions by conducting a liquidity-draining fine-tuning operation for an amount of €60 billion with a rate of 4.00%. The maintenance period ended with net recourse to the deposit facility of €1.2 billion and the EONIA at 3.865%.

### **Reserve maintenance period ending on 9 October**

In the first MRO of this maintenance period, which was settled on 12 September, the ECB allotted €10 billion above the benchmark. Only one day later further liquidity was provided through a second supplementary longer-term refinancing operation with a three-month maturity for an amount of €75 billion. This aimed to support the normalisation of the functioning of the euro money market, and the resulting ample liquidity conditions drove the EONIA down from 4.113% on the first day of the period to 3.573% on 17 September.

With the second MRO of that period, the ECB started to gradually withdraw the excess liquidity and allotted €36 billion above the benchmark. On the settlement day, 19 September, the EONIA rose by 48 basis points to 4.095%, before easing to 4.007% on the following day. With the end

<sup>3</sup> As of September, the EONIA is published with three decimal places instead of two.

of the quarter imminent, the EONIA rebounded strongly to stand at 4.293% on 26 September. The allotment of €33 billion above the benchmark in that week's MRO stopped this upward trend, and the EONIA stood at 4.137% and 4.162% respectively on the last two days of the quarter. On Monday 1 October, once the end-of-quarter effect had passed, the EONIA stood at 3.858%.

With the allotment, in the MRO in the last week of the period, of €7.5 billion above the benchmark, the EONIA eased further, reaching 3.621% on 8 October. On the following day the ECB again restored balanced liquidity conditions by withdrawing €24.5 billion in a fine-tuning operation with a rate of 4.00%. The period ended with net recourse to the deposit facility of just €0.4 billion and the EONIA at 3.945%.

### Reserve maintenance period ending on 13 November

Just before the start of the maintenance period ending on 13 November the ECB issued a statement via news wire services saying that the ECB was aiming to further reduce the volatility of short-term rates around the central policy rate.<sup>4</sup> To this end, the ECB stated its willingness to reinforce its policy of allotting more than the benchmark amount in its MROs, while still aiming at balanced conditions at the end of the period, with a view to steering liquidity conditions during the period so that very short-term interest rates remained close to the minimum bid rate. The ECB allotted €40 billion above the benchmark in the first MRO of the period. When the EONIA fell from 3.946% to 3.818% in the first two days of the period, the ECB conducted a liquidity-absorbing fine-tuning operation, offering to accept "up to €30 billion" for five days at a rate of 4.00%. Since counterparties submitted bids with a total value of €40 billion, the full €30 billion was absorbed.

After this operation the EONIA stabilised at a level only slightly above 4.00% and remained at that level until 9 November, with the end of the month giving rise only to a moderate increase to 4.131%. The ECB steadily reduced the amount by which its allotments exceeded the benchmark, with €3.5 billion being allotted above the benchmark in the last MRO of the period. The EONIA decreased to 3.837% on the penultimate day of the period. On the next day the ECB expected net recourse to the deposit facility of €37 billion and launched a liquidity-draining fine-tuning operation for that amount. However, the bids submitted by counterparties fell €9.3 billion short of that volume, giving rise to a liquidity surplus in the market. The overnight rate fell to a level close to the deposit facility rate, and the EONIA stood at 3.755%. The period ended with net recourse to the deposit facility of €8.7 billion.

4 The ECB issued the following statement on 8 October together with the announcement of the first MRO of the maintenance period: "The ECB continues to closely monitor liquidity conditions and aims at further reducing the volatility of very short-term rates around the MRO minimum bid rate. For this purpose, the ECB will reinforce its policy of allocating more liquidity than the benchmark amount in main refinancing operations to accommodate the demand of counterparties to fulfil reserve requirements early within the maintenance period. The difference between the allotted and the benchmark amount is envisaged to decline gradually in the course of the maintenance period, taking into account the prevailing market conditions. The ECB still aims at balanced liquidity conditions at the end of the maintenance period. The ECB will steer liquidity towards more balanced conditions also during the maintenance period, in a way which is consistent with the objective to keep very short-term rates close to the minimum bid rate."