This box reviews the ECB’s liquidity management during the three reserve maintenance periods ending on 7 September, 11 October and 8 November 2004.

**Liquidity needs of the banking system**

Banks’ liquidity needs continued to grow in the period under review (see Chart A). The main contributing factor was the growth in net autonomous factors (i.e. the liquidity factors which do not normally stem from the use of monetary policy instruments), which absorbed €191.5 billion on average during the review period. This represents the highest level registered since January 1999. The increase is primarily attributable to the continued growth in banknotes in circulation, which reached a record average level of €465.8 billion. Government deposits were also high, ranging from approximately €40 to €78 billion during the period under review. Reserve requirements were stable, while excess reserves (i.e. current account holdings in excess of reserve requirements) fluctuated modestly around an average value of €0.60 billion. This average level, although on the low side, is within the range of average values seen in previous periods (see Chart B).
**Liquidity supply and interest rates**

In parallel with the growing demand for liquidity, the volume of open market operations increased (see Chart A). The allotment amount in the main refinancing operation (MRO) settled on 25 October was €268 billion, the highest since the start of 1999.

Nevertheless, the ratio between bids submitted by counterparties and satisfied bids (the bid-cover ratio) increased in the period under review, standing at 1.35 on average.

In all MROs settled during the period, the ECB allotted the benchmark amount (i.e. the allotment required to establish balanced liquidity conditions on the basis of the ECB’s overall liquidity forecast). The differences between the marginal and the weighted average rates at which funds were allotted in the tenders were either 0 or 1 basis point. The difference between the minimum bid rate and the marginal rate grew from 1 basis point in mid-August to 4 basis points by the start of November.

Generally, the EONIA (euro overnight index average) was relatively stable during most of the period under review, although it followed the same slightly increasing trend as the marginal rate.
(see Chart C). As usual, the EONIA increased at month-ends and exhibited higher volatility in the week between the last MRO allotment and the end of the respective maintenance period.

After the last MRO allotment of the maintenance period ending 7 September, the EONIA initially declined to levels only slightly above the minimum bid rate of 2%, as market participants appeared to perceive liquidity conditions to be loose. On the last two days of the maintenance period, the EONIA rose to around 2.15% even though liquidity conditions were relatively loose. The period ended with a net recourse to the deposit facility of €2.2 billion.

At the end of the following maintenance period, the EONIA jumped to 2.13% on the settlement day of the last MRO, on expectations of tight liquidity. On this occasion, liquidity conditions were in fact tight. On 11 October, the last day of the maintenance period, there was a net recourse to the marginal lending facility of €7.6 billion, with the EONIA rising to 2.77%.

A similar pattern of volatility and market expectations of tight liquidity conditions emerged after the allotment of the last MRO of the maintenance period ending on 8 November. On Thursday 4 November, the EONIA increased to 2.24%. In response to this development, the ECB communicated on the subsequent morning that it did not foresee a large liquidity imbalance on the last day of the maintenance period but that it stood ready to counter any such imbalance via a fine tuning operation. On the last day of the maintenance period, a shortage of €6.5 billion became likely. Consequently, the ECB injected this amount via a fine-tuning operation. As a result, the EONIA fell and ended at 2.02% on that day. The decision to fine-tune showed the ECB’s desire to address more effectively substantial liquidity imbalances that cause excessive volatility in the overnight rate, notably those resulting from changes in the Eurosystem’s forecast for the autonomous liquidity factors at the end of the maintenance period.