

**Box I****Monetary policy operations and liquidity conditions in the reserve maintenance period ending on 23 January 2002**

During the reserve maintenance period from 24 December 2001 to 23 January 2002, the Eurosystem settled five main refinancing operations (MROs), and two fine-tuning (FT) operations. Their outcomes are summarised in the table below.

**Regular monetary policy operations**

(EUR billions; interest rates in percentages per annum)

| Operation | Date of settlement | Date of maturity | Bids (amount) | Allotment (amount) | Bid-cover ratio | Number of participants | Minimum bid rate | Marginal rate | Weighted average rate |
|-----------|--------------------|------------------|---------------|--------------------|-----------------|------------------------|------------------|---------------|-----------------------|
| MRO       | 28/12/2001         | 09/01/2002       | 105.6         | 85.0               | 1.2             | 331                    | 3.25             | 3.45          | 3.52                  |
| MRO       | 02/01/2002         | 16/01/2002       | 88.7          | 31.0               | 2.9             | 241                    | 3.25             | 3.28          | 3.29                  |
| MRO       | 09/01/2002         | 23/01/2002       | 155.9         | 83.0               | 1.9             | 360                    | 3.25             | 3.30          | 3.32                  |
| MRO       | 16/01/2002         | 30/01/2002       | 116.8         | 22.0               | 5.3             | 329                    | 3.25             | 3.31          | 3.32                  |
| MRO       | 23/01/2002         | 06/02/2002       | 146.3         | 103.0              | 1.4             | 382                    | 3.25             | 3.29          | 3.30                  |
| FT        | 04/01/2002         | 07/01/2002       | 57.6          | 25.0               | 2.3             | 61                     | 3.25             | 3.30          | 3.32                  |
| FT        | 10/01/2002         | 11/01/2002       | 59.4          | 40.0               | 1.5             | 63                     | 3.25             | 3.28          | 3.30                  |

Source: ECB.

As a result of the cash changeover, it was more difficult than usual to predict liquidity needs in the maintenance period under review. In the first two weeks of the new year, the demand for banknotes was higher than anticipated by the ECB, owing to both a stronger than expected demand for the new euro banknotes and a lower than forecast return of former national banknotes from the banking system to the Eurosystem. In order to meet the higher than expected demand for liquidity, the ECB conducted two liquidity-providing fine-tuning operations in the first half of January. The operations were carried out in the form of variable rate tenders with a minimum bid rate of 3.25% and overnight maturity. The ECB also provided several updates on the published estimates of the liquidity needs of the banking system, in addition to the standard procedure of publishing weekly estimates of these liquidity needs together with the regular main refinancing operations.

The EONIA rose to 3.91% on the last business day of 2001, Friday, 28 December, reflecting the usual high liquidity demand resulting from balance sheet considerations of financial institutions at year-end. The relatively tight liquidity conditions and general uncertainty regarding the individual liquidity needs of banks implied by the cash changeover led the EONIA to hover at around 3.35% in the first three weeks of January, i.e. somewhat above the minimum bid rate in the ECB's main refinancing operations (3.25%). Two days before the end of the maintenance period, the EONIA fell below the minimum bid rate, to 3.03%, and dropped further to 2.59% on 23 January, as liquidity conditions were by then perceived as ample.

Indeed, the maintenance period ended with a total net recourse to the deposit facility of €6.4 billion (€0.7 billion recourse to the marginal lending facility and €7.1 billion recourse to the deposit facility on 23 January). In addition, the so-called "excess reserves" – the difference between average current accounts with the Eurosystem (€130.4 billion) and minimum reserve requirements (€128.7 billion) – were much higher than usual, amounting to €1.7 billion. This indicates that some banks may have increased their liquidity buffers on account of difficulties in predicting their cash flows during the cash changeover. The resulting distribution of reserves led to an early fulfilment of the reserve requirements for a large number of credit institutions, implying a stronger than usual tendency for excess reserves to accumulate.

The net liquidity-absorbing impact of the autonomous factors, i.e. the factors not related to monetary policy (item (b) in the table below), on the banking system's liquidity was €51.6 billion on average. The estimates of

average liquidity needs stemming from autonomous factors, published together with the tender announcements, ranged between €33.1 billion and €73.2 billion. The large variation arose mainly from the debiting scheme for the frontloaded euro cash, in accordance with which a third of the total frontloaded amount of €133.5 billion was debited on each of 2 January, 23 January and 30 January. As mentioned above, during the first two weeks of the cash changeover, the actual figures turned out to be much higher than the estimates, by up to €15.4 billion. In the remainder of the maintenance period, by contrast, they were lower than estimated, by up to €7.1 billion. These larger than usual deviations of the published figures from the actual outcome reflected the difficulties in forecasting banknote circulation during the cash changeover.

### Contributions to the banking system's liquidity

(EUR billions)

Daily average during the reserve maintenance period from 24 December 2001 to 23 January 2002

|  | Liquidity providing | Liquidity absorbing | Net contribution |
|--|---------------------|---------------------|------------------|
| <b>(a) Monetary policy operations of the Eurosystem</b>                                    | <b>182.6</b>        | <b>0.6</b>          | <b>+ 182.0</b>   |
| Main refinancing operations  | 118.5               | -                   | + 118.5          |
| Longer-term refinancing operations   | 60.0                | -                   | + 60.0           |
| Standing facilities  | 0.4                 | 0.6                 | - 0.1            |
| Other operations   | 3.7                 | -                   | + 3.7            |
| <b>(b) Other factors affecting the banking system's liquidity</b>                          | <b>385.2</b>        | <b>436.8</b>        | <b>- 51.6</b>    |
| Banknotes in circulation   | -                   | 344.3               | - 344.3          |
| Government deposits with the Eurosystem  | -                   | 38.3                | - 38.3           |
| Net foreign assets (including gold)  | 385.2               | -                   | + 385.2          |
| Other factors (net)  | -                   | 54.2                | - 54.2           |
| <b>(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)</b> |                     |                     | <b>130.4</b>     |
| <b>(d) Required reserves</b>   |                     |                     | <b>128.7</b>     |

Source: ECB.

Totals may not add up due to rounding.