This box describes the ECB’s monetary policy operations during the reserve maintenance periods ending on 11 March 2014, 8 April 2014 and 13 May 2014, i.e. the second, third and fourth maintenance periods of the year.

During the review period the main refinancing operations (MROs) continued to be conducted as fixed rate tender procedures with full allotment. The same procedure remained in use for the special-term refinancing operations with a maturity of one maintenance period. The fixed rate was the same as the MRO rate prevailing at the time.

Furthermore, the three-month longer-term refinancing operations (LTROs) allotted in the review period were also conducted as fixed rate tender procedures with full allotment. The interest rate in each of these operations was fixed at the average of the MRO rates over the respective LTRO’s lifetime. Finally, the Governing Council decided to keep the key ECB rates unchanged during the period under review.

**Liquidity needs**

During the review period, the aggregate daily liquidity needs of the banking system, defined as the sum of autonomous factors and reserve requirements, averaged €588.1 billion, €17.0 billion lower than the daily average in the previous review period (from 13 November 2013 to 11 February 2014). Autonomous factors declined significantly from an average of €501.8 billion to an average of €484.8 billion in the period under review. Reserve requirements remained broadly unchanged, averaging €103.3 billion in the period under review (see Chart A).

Looking at individual contributions to the change in average autonomous factors, net assets denominated in euro had the strongest liquidity-providing effect, increasing on average by €31.0 billion, from an average of €447.0 billion in the previous review period to an average of €478.0 billion in the period currently under review. The increase in net assets denominated in euro reflects, among other things, lower deposits denominated in euro held with the Eurosystem by foreign central banks.
The liquidity-providing effect resulting from this factor was partially offset by an increase in government deposits and banknotes in circulation. Government deposits increased by €7.7 billion during the review period, from an average of €73.9 billion to an average of €81.6 billion. This component also continued to exhibit significant volatility, fluctuating by as much as €59.4 billion during the period under review. Such fluctuations have a substantial impact on the volatility of autonomous factors; in particular, significant increases in government deposits are observed between the 19th and 23rd of each month during the tax collection cycle, and declines are observed at the beginning of each month with the payment of salaries, pensions and social benefits. Nevertheless, the impact on the average level of autonomous factors is normally less significant. Government deposits increased, on average, by €4.0 billion, from an average of €936.1 billion in the previous review period to an average of €940.1 billion in the period currently under review. More specifically, banknotes in circulation increased by €6.3 billion in the third maintenance period to an average of €947.9 billion, largely reflecting a seasonal demand pattern during the Easter period.

Finally, net foreign assets and other autonomous factors almost offset each other from a liquidity point of view, as the main changes to these items resulted from the quarterly amortisation exercise that affects each item in the opposite way. Net foreign assets absorbed liquidity in an amount of €8.4 billion during the period under review, with the average decreasing from €531.4 billion to €523.0 billion, whereas other autonomous factors provided additional liquidity as a result of their decline of €6.1 billion, to an average of €463.7 billion.

Daily current account holdings in excess of reserve requirements averaged €92.2 billion during the period under review, a reduction of €34.1 billion compared with the previous review period. This decline is in line with the downward trend in excess reserves recorded since early 2013. Daily current account holdings in excess of reserve requirements continued to decline on a monthly basis, from a peak of €98.3 billion in the second maintenance period of 2014 to €87.7 billion in the fourth maintenance period of 2014.

The decline in current account holdings was gradual during the second and third maintenance periods. However, higher volatility was observed in the fourth maintenance period, with current account holdings in excess of reserve requirements fluctuating between a peak of €145.4 billion and a trough of €46.5 billion, as banks were increasing their recourse to the refinancing operations amid higher tensions in overnight money markets, while excess liquidity reached levels below €100 billion.

**Liquidity supply**

The average amount of liquidity provided through open market operations continued to decline, from €782.1 billion during the previous review period to €709.4 billion. The main reason for this decline comprised the repayments of the three-year LTROs, while liquidity provided in the other refinancing operations increased on average, slightly offsetting the decline in excess liquidity. Tender operations\(^1\) provided an average of €483.2 billion of liquidity, marking a decline of €62.0 billion compared with the previous review period. The liquidity provided through the weekly MROs stood on average at €109.9 billion, just €0.4 billion lower than in the previous review period. The weekly allotted amount was, however, more volatile than in

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\(^1\) Tender operations include main refinancing operations, longer-term refinancing operations and fine-tuning operations (both liquidity-providing and liquidity-absorbing).
previous periods, fluctuating in a range between a low of €87.0 billion on 5 March 2014 and a high of €172.6 billion on 30 April 2014, as banks adjusted their demand according to the developments in liquidity and money market conditions.

During the review period, LTROs with a duration of three months and of one maintenance period contributed, on average, €43.4 billion to the liquidity supply, €11.8 billion higher than in the previous review period. Such a high level of average recourse to these operations had not been seen since the beginning of 2013. The three-year LTROs provided on average €496.5 billion, as counterparties repaid €82.6 billion during the review period, an amount similar to that repaid in the previous period. Weekly repayments amounted to €8.7 billion during the second maintenance period, an amount significantly lower than those repaid in the previous months. However, weekly repayments accelerated in the third and fourth maintenance periods, totalling €41.9 billion and €32.0 billion respectively, after both three-year LTROs fell below one year maturity. At the end of March, repayments increased significantly ahead of the presentation of the quarterly financial statements.

The combined outstanding amount of securities held for monetary policy purposes – comprising the first and second covered bond purchase programmes (CBPP and CBPP2) and the Securities Markets Programme (SMP) – stood on average at €226.3 billion, a decrease of €10.6 billion.

The outstanding amount of securities purchased under the CBPP, which was completed in June 2010, stood at €37.8 billion at the end of the review period, €1.9 billion lower than in the previous review period, on account of maturing securities. Outstanding amounts under CBPP2, which ended on 31 October 2012, stood at €14.4 billion at the end of the review period, €0.6 billion lower than in the previous review period, also on account of maturing securities. The outstanding value of the SMP decreased by €8.3 billion during the review period, reflecting redemptions in the portfolio. The outstanding amount at the end of the review period was €167.4 billion. The weekly liquidity-absorbing fine-tuning operations sterilised the liquidity injected through the SMP, although, in the last four operations of the review period, the bids received were lower than the intended amount of absorption. These episodes reflected greater tensions in the money market rates as a consequence of lower excess liquidity, which was sometimes accompanied by rate spikes above the maximum bid rates on these liquidity-absorbing operations. Chart A summarises the developments of the liquidity needs of the banking system and the liquidity supply.

**Excess liquidity**

Excess liquidity continued to decline, averaging €121.3 billion in the period under review, compared with €176.9 billion in the previous review period. At the same time, it remained volatile, especially during the last maintenance period, fluctuating within the review period between €179.5 billion (6 May 2014) and €74.0 billion (7 May 2014). As described above, the main drivers were the increase in and fluctuation of government deposits, as well as the increase in banknotes in circulation, the significant amount of repayments during the period under review and the higher volatility in the amounts allotted through MROs. Since the rate on the deposit facility stood at 0%, and was thereby equal to the remuneration of excess reserve holdings, counterparties were largely indifferent regarding the disposition of their excess liquidity. For the three maintenance periods under review, the pattern was fairly stable, with about 24% of excess liquidity held in the deposit facility and 76% held in the form of excess reserves. However, it can be observed that in the
last week of maintenance periods, when more counterparties have already fulfilled their reserve requirements, the share of excess liquidity in the deposit facility increases. This was especially notable in the case of the fourth maintenance period of 2014 when, on average, 39% of excess liquidity was held in the deposit facility during the last week (see Chart B).

**Interest rate developments**

During the review period, the ECB rates on the marginal lending facility, the MROs and the deposit facility remained unchanged at 0.75%, 0.25% and 0%, respectively. In light of declining excess liquidity, both the level and the volatility of the EONIA increased compared with the previous period under review. The EONIA averaged 20.7 basis points, compared with 16.9 basis points in the previous three maintenance periods. Within the period under review, the EONIA fluctuated in a range between 10.8 and 68.8 basis points. The average EONIA in the second maintenance period was 17.2 basis points. It increased to 20.1 basis points in the third maintenance period and to 24 basis points in the fourth maintenance period. The rates in the weekly liquidity-absorbing fine-tuning operations also reached significantly higher levels than in the previous period under review, with the weighted average allotment rate ranging between 21 and 24 basis points within the review period (see Chart C).