

## Box 2

**LIQUIDITY CONDITIONS AND MONETARY POLICY OPERATIONS IN THE PERIOD FROM 13 AUGUST TO 11 NOVEMBER 2014**

This box describes the ECB's monetary policy operations during the reserve maintenance periods ending on 9 September, 7 October and 11 November 2014, i.e. the eighth, ninth and tenth maintenance periods of the year.

On 4 September 2014 the ECB lowered the interest rate on the main refinancing operations (MROs) by 10 basis points, to 0.05%, with effect from the operation to be settled at the start of the ninth maintenance period, i.e. on 10 September. At the same time, the interest rates on the marginal lending facility and the deposit facility were lowered by 10 basis points, to 0.30% and -0.20% respectively. In addition, on 4 September the Governing Council introduced the new covered bond purchase programme (CBPP3) and the asset-backed securities purchase programme (ABSPP). On 2 October 2014 the ECB decided on the key operational details of the programmes, with purchases of covered bonds to commence in the second half of October and purchases of asset-backed securities to commence in the fourth quarter of 2014.

During the period under review the MROs continued to be conducted as fixed rate tender procedures with full allotment. The same procedure remained in use for the three-month longer-term refinancing operations (LTROs). The interest rate in each LTRO operation was fixed at the average of the rates on the MROs over the respective LTRO's lifetime. On 18 September the first of a series of targeted longer-term refinancing operations (TLTROs) was conducted. These operations are conducted as fixed rate tender procedures with full allotment and the rate is fixed over the life of the operation at the MRO rate prevailing at the time of take-up, plus a fixed spread of 10 basis points.

## Liquidity needs

In the period under review the aggregate daily liquidity needs of the banking system, defined as the sum of autonomous factors and reserve requirements, averaged €579.6 billion, which was €33.3 billion less than the daily average in the previous review period (i.e. the period from 14 May

### Eurosystem liquidity situation

	13 Aug. to 11 Nov.	14 May to 12 Aug.	Tenth maintenance period		Ninth maintenance period		Eighth maintenance period		
<b>Liabilities – liquidity needs (averages; EUR billions)</b>									
<b>Autonomous liquidity factors</b>	<b>1,561.4</b>	<b>(+3.2)</b>	<b>1,558.2</b>	<b>1,577.2</b>	<b>(+17.1)</b>	<b>1,560.1</b>	<b>(+17.2)</b>	<b>1,542.9</b>	<b>(-17.3)</b>
Banknotes in circulation	972.3	(+12.7)	959.6	973.6	(+2.3)	971.3	(-0.5)	971.8	(+4.1)
Government deposits	73.8	(-29.9)	103.7	76.1	(-2.3)	78.4	(+12.2)	66.2	(-26.2)
Other autonomous factors	515.3	(+20.4)	494.9	527.5	(+17.2)	510.4	(+5.5)	504.9	(+4.8)
<b>Monetary policy instruments</b>									
Current accounts	196.3	(-9.6)	205.9	188.3	(-4.4)	192.6	(-17.5)	210.1	(-0.1)
Minimum reserve requirements	105.4	(+0.9)	104.5	105.7	(+0.4)	105.3	(+0.1)	105.2	(+1.5)
Deposit facility	27.1	(+1.6)	25.5	31.0	(+6.7)	24.3	(-1.0)	25.2	(+0.6)
Liquidity-absorbing fine-tuning operations	0.0	(-47.1)	47.1	0.0	(+0.0)	0.0	(+0.0)	0.0	(+0.0)
<b>Assets – liquidity supply (averages; EUR billions)</b>									
<b>Autonomous liquidity factors</b>	<b>1,087.5</b>	<b>(+37.4)</b>	<b>1,050.2</b>	<b>1,095.4</b>	<b>(+10.1)</b>	<b>1,085.3</b>	<b>(+5.4)</b>	<b>1,079.9</b>	<b>(+8.3)</b>
Net foreign assets	554.6	(+12.7)	541.9	562.0	(+9.9)	552.1	(+4.3)	547.8	(+0.2)
Net assets denominated in euro	532.9	(+24.7)	508.2	533.5	(+0.3)	533.2	(+1.2)	532.0	(+8.1)
<b>Monetary policy instruments</b>									
Open market operations	697.4	(-42.2)	739.6	701.1	(+9.3)	691.8	(-6.6)	698.4	(-25.1)
Tender operations provided	502.7	(-28.4)	531.1	507.7	(+10.5)	497.1	(-4.9)	502.1	(-19.2)
MROs	102.3	(-18.6)	121.0	95.2	(-3.7)	98.9	(-15.8)	114.7	(+8.1)
Special-term refinancing operations	0.0	(-13.0)	13.0	0.0	(+0.0)	0.0	(+0.0)	0.0	(+0.0)
Three-month LTROs	25.8	(-7.6)	33.4	26.3	(+1.6)	24.7	(-1.7)	26.4	(-5.7)
Three-year LTROs	330.1	(-80.8)	410.8	303.6	(-28.6)	332.2	(-28.8)	361.0	(-21.6)
Targeted LTROs	44.5	(+44.5)	0.0	82.6	(+41.3)	41.3	(+41.3)	0.0	(+0.0)
Outright portfolios	194.7	(-13.8)	208.5	193.4	(-1.3)	194.7	(-1.7)	196.3	(-5.8)
First covered bond purchase programme	31.9	(-3.1)	35.0	30.9	(-1.3)	32.2	(-0.7)	32.9	(-0.5)
Second covered bond purchase programme	13.6	(-0.5)	14.1	13.4	(-0.3)	13.6	(-0.2)	13.8	(-0.1)
Third covered bond purchase programme	1.1	(+1.1)	0.0	2.8	(+2.8)	0.0	(+0.0)	0.0	(+0.0)
Securities Markets Programme	148.1	(-11.3)	159.4	146.3	(-2.5)	148.8	(-0.8)	149.6	(-5.2)
Asset-backed securities purchase programme	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)	0.0	(+0.0)
Marginal lending facility	0.2	(+0.0)	0.2	0.3	(+0.1)	0.2	(+0.0)	0.2	(-0.1)
<b>Other liquidity-based information (averages; EUR billions)</b>									
Aggregate liquidity needs	579.6	(-33.3)	612.9	587.7	(+7.2)	580.5	(+12.0)	568.5	(-25.4)
Autonomous factors	474.1	(-34.3)	508.3	482.0	(+6.9)	475.1	(+11.9)	463.2	(-25.7)
Excess liquidity	117.8	(-9.0)	126.8	113.3	(+1.9)	111.4	(-18.6)	130.0	(+0.4)
Repayment of three-year LTROs <sup>1)</sup>	75.2	(-10.0)	85.2	23.5	(-16.4)	39.9	(+28.0)	11.9	(-23.6)
<b>Interest rate developments (percentages)</b>									
MROs	0.08	(-0.10)	0.18	0.05	(+0.00)	0.05	(-0.10)	0.15	(+0.00)
Marginal lending facility	0.33	(-0.18)	0.51	0.30	(+0.00)	0.30	(-0.10)	0.40	(+0.00)
Deposit facility	-0.17	(-0.10)	-0.07	-0.20	(+0.00)	-0.20	(-0.10)	-0.10	(+0.00)
EONIA average	0.002	(-0.099)	0.101	-0.003	(+0.002)	-0.005	(-0.021)	0.016	(-0.022)

Source: ECB.

Note: Since all figures in the table are rounded, in some cases the figure indicated as the change relative to the previous period does not represent the difference between the rounded figures provided for the two periods (differing by €0.1 billion).

1) For the repayments of the three-year LTROs the sum in EUR billions is used instead of the average.

to 12 August 2014).<sup>1</sup> Autonomous factors declined significantly, falling by €34.3 billion to stand at an average of €474.1 billion, while reserve requirements increased marginally, by €0.9 billion, to stand at an average of €105.4 billion (see the table).

The change in average autonomous factors resulted from the combined effect of changes in several individual components. Among the liquidity-providing factors, net assets denominated in euro increased by €24.7 billion to stand at an average of €532.9 billion, having increased by €30.3 billion in the previous period. This reflected, among other things, a reduction in foreign official institutions' euro-denominated deposits with the Eurosystem. The introduction of a negative deposit facility rate and the further rate cut in September has led some foreign official institutions to further reduce their cash holdings with Eurosystem central banks.

Among the liquidity-absorbing factors, banknotes in circulation increased by €12.7 billion to an average of €972.3 billion. The pace of the increase slowed compared with the previous review period, partly as a result of lower seasonal demand for banknotes after the tourism activities over the summer period. Government deposits declined, falling by €29.9 billion to stand at an average of €73.8 billion. As the introduction of a negative deposit facility rate also affected government deposits held with the Eurosystem, national treasuries tried increasingly to invest their excess liquidity at positive interest rates in the market, but were not always able to achieve this goal.

The volatility of autonomous factors declined slightly, albeit from relatively high levels. The weekly estimates, which are published together with the announcement of the MROs, ranged between €451.7 billion and €500.9 billion, compared with a range between €451.7 billion and €532.1 billion in the previous period. This volatility was due primarily to fluctuations in other autonomous factors and government deposits. The traditional volatility of government deposits owing to tax cycles was compounded by the aforementioned attempts by treasuries and customers of Eurosystem reserve management services to invest more of their holdings in the market.

Weekly forecasts of autonomous factors showed an average absolute error of €4.8 billion, which constitutes a decline from the average absolute error of €6.7 billion in the previous review period. While the average forecast error declined, the range of the weekly forecast errors increased, ranging between -€6.6 billion and €16.2 billion. Both the decline in the average absolute error and the increase in the range can be attributed mainly to the forecasts of government deposits, which exhibited an average absolute error of €4.9 billion. While the precision of forecasts of government deposits increased on average, it remained difficult to anticipate the investment activities of treasuries in an environment in which short-term money market rates were often negative, particularly after the ECB cut interest rates further in September. Other autonomous factors also contributed, recording an average absolute error of €3.0 billion.<sup>2</sup>

### Liquidity provision

The average amount of liquidity provided through open market operations declined by €42.2 billion, to €697.4 billion, in the period under review. This decline was a result of the combined effect of the repayments of the three-year LTROs and a decline in the average take-up

<sup>1</sup> All comparisons are relative to the previous period, unless otherwise indicated.

<sup>2</sup> Average forecast errors for individual components of autonomous factors will not add up to the average forecast error for total autonomous factors, as some autonomous factors will be netted out, e.g. changes to components related to the quarter-end revaluation of the balance sheet.

in the MROs, which was partially offset by an increase in liquidity provision through the first TLTRO. Liquidity provided through tender operations averaged €502.7 billion, which constituted a decline of €28.4 billion in comparison with the previous review period.

The average amount of liquidity provided through the weekly MROs declined by €18.6 billion, to €102.3 billion, as some counterparties switched part of their borrowing from the MROs to the TLTRO. The weekly amount allotted remained volatile, fluctuating between a high of €131.8 billion on 26 August and a low of €82.5 billion on 14 October, as banks adjusted their demand in line with developments in liquidity and money market conditions.

The repayments of the three-year LTROs continued at an average pace of €5.8 billion per week, which was slightly slower than in the previous period (€6.3 billion). By the end of the period under review total repayments had reached €697.0 billion, corresponding to 70% of the total amount borrowed and to 133% of the initial net injection of liquidity. Weekly repayments continued to fluctuate, with a peak settlement of €19.9 billion on 24 September, as some counterparties switched to obtaining funding under the first TLTRO.

Outright portfolios declined on average by €13.8 billion, mainly as a result of the maturing of government bonds in the Securities Markets Programme portfolio. Purchases of covered bonds under the CBPP3 started on 20 October – i.e. only towards the end of the review period. On average over the review period, covered bond purchases released liquidity amounting to €1.1 billion and the amount settled under the CBPP3 at the end of the review period stood at €7.4 billion.

### **Excess liquidity**

Excess liquidity declined by €9 billion, averaging €117.8 billion in the period under review, compared with €126.8 billion in the previous review period. Daily current account holdings in excess of reserve requirements declined by €10.5 billion, to an average of €90.9 billion, while the use of the deposit facility increased by €1.6 billion, to €27.1 billion, on average. After declining steadily since the beginning of 2013, excess liquidity has fluctuated around a level of approximately €120 billion since March 2014. In the ninth maintenance period of 2014 excess liquidity fell slightly lower to an average of €111.4 billion – the lowest level recorded since the settlement of the first three-year LTRO at the end of 2011. Excess liquidity fluctuated significantly, in particular in the ninth maintenance period, driven mainly by volatility in autonomous factors and the fluctuations in the amounts allotted in the MROs. In the ninth maintenance period the low recorded in government deposits coincided with a high take-up in the MRO, which was related to the quarter-end, leading to a peak in excess liquidity at €159 billion. At times excess liquidity temporarily fell below €100 billion, with a low of €77 billion recorded on 23 September.

Regarding the disposition of excess liquidity, on average over the review period counterparties held 23% of their excess liquidity in the deposit facility and 77% was held in the form of excess reserves. As excess reserves (i.e. average current account holdings in excess of minimum reserve requirements) have also been charged the negative rate on the deposit facility since June, counterparties should be indifferent to the form in which excess liquidity is held. However, for some counterparties technical and operational aspects may make current accounts more

convenient, while for other counterparties operational and regulatory aspects favour the use of the deposit facility. During the course of the review period the share of excess liquidity held in the deposit facility increased from 19% to 27%, owing to both higher average use of the deposit facility and a decline in current account holdings.

### Interest rate developments

The EONIA rate averaged 1.6 basis points in the eighth maintenance period, prior to the cut in ECB interest rates which took effect on 10 September, compared with 10.1 basis points in the three preceding maintenance periods. It fluctuated between a high of 10.1 basis points on 13 August and a low of -0.4 basis point on 28 August, reflecting fluctuations in excess liquidity. Following the cut in the interest rates on the MROs, the deposit facility and the marginal lending facility, the EONIA rate recorded a negative average value for the first time in the ninth maintenance period (-0.5 basis point) and the tenth maintenance period (-0.3 basis point), and reached a new low of -4.5 basis points on 3 October. Volatility was very limited: except for end-of-month spikes, the EONIA remained within a relatively narrow range, fluctuating between 2.2 basis points on 24 September and -4.5 basis points on 3 October.