



2 EUROSISTEM MONETARY POLICY

MONETARY POLICY IS UNDERPINNING EUROSISTEM STABILITY

The ECB's monetary policy, set by the bank's Governing Council, is implemented in a decentralised manner through the monetary policy operational framework as defined in the General Documentation on Eurosystem monetary policy and instruments. In the period before the financial crisis, monetary policy was implemented solely through standard instruments, namely open market operations, standing facilities, and minimum reserve requirements. Since the start of the financial crisis in 2007 and its subsequent escalation into an economic crisis, the Governing Council has deployed a variety of what are known as non-standard or unconventional monetary policy measures. The implementation of such measures has significantly altered the Eurosystem's monetary policy operational framework. The ECB has also adjusted its communication strategy to include forward guidance about interest rate policy.

In its monetary policy decisions addressing deflationary risks, the ECB had to take into account new policy transmission channels, since the standard transmission mechanism – the steering of short-term interest rates – had ceased to be effective. The reduction of key ECB interest rates to historically low, even negative, levels and the unlimited provision of liquidity through monetary policy operations had failed to have an impact on market interest rates and lending activity, thus illustrating the malfunctioning of the standard policy transmission mechanism and the need for new policy instruments.

To support the economy in an environment of unprecedentedly low interest rates, the ECB introduced targeted longer-term refinancing operations (TLTROs) and an asset purchase programme (APP), and it began providing forward guidance about the specific timing of future monetary policy measures. Forward guidance helped stabilise market expectations about key interest rates and excess liquidity, which had a sizeable upward impact on in-

flation expectations, which are important for price stability³.

MONETARY POLICY DECISIONS IN 2016

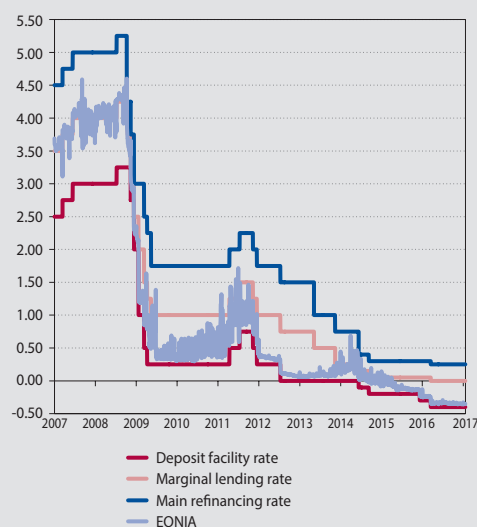
As the prospect of inflation returning to the ECB's target rate deteriorated in 2016 owing mainly to external factors, further monetary policy interventions became necessary. In January 2016 the Governing Council reaffirmed its expectation that the key ECB interest rates would remain at present or lower levels for an extended period of time, and well past the horizon of the ECB's asset purchase programme.

The risk of inflation falling back into negative territory was substantial, due to external factors in conjunction with deteriorating conditions in European financial markets. In March 2016 the ECB conducted a thorough review of its monetary policy stance and, as a result, adopted a set of measures in the pursuit of its price stability objective, as follows: (i) the key rates were reduced to historically low levels, with the deposit facility rate cut to -0.40%, the main refinancing rate to 0.00%, and the marginal lending rate to 0.25%; (ii) monthly purchases under the asset purchase programme were expanded to €80 billion starting in April 2016, and the issuer and issue share limits for the purchases of certain securities were increased; (iii) a corporate sector purchase programme (CSPP) for the purchase of corporate securities was added to the asset purchase programme; (iv) a new series of targeted longer-term refinancing operations (TLTRO-II) was announced; and (v) there was a reaffirmation of the forward guidance that the key rates were expected to remain at present or lower levels for an extended period of time, and, if necessary, well past the March 2017 horizon of the APP.

The new series of targeted longer-term refinancing operations are focused on banks that are actively engaged in lending, and may be seen as a central bank intervention in support of lending to the real economy. Each of the four new operations has a four-year maturity. The first operation was conducted in June 2016 and the last is scheduled for March 2017. At

³ For further details, see the article entitled "Identifying quantitative easing transmission channels and quantifying their parameters", published in the NBS journal *Biatec*, issue no 2/2016.

Chart 8 Key ECB interest rates and the EONIA (percentages per annum)



Source: Bloomberg.

the same time, banks borrowing under TLTRO-I have the option of voluntary repayment to increase cheaper borrowing under TLTRO-II. The interest rate applied to TLTRO-II is fixed for each operation at the rate applied in the main refinancing operations (MROs) prevailing at the time of allotment. A lower interest rate is applied, however, to borrowers whose net lending exceeds a specified benchmark, and it can be as low as the rate on the deposit facility at the time of allotment (the deposit facility rate was negative, at -0.40%, when this measure was announced).⁴

At its December 2016 meeting, the Governing Council decided to adjust its monetary policy settings by: (i) extending the horizon for purchases under the APP to December 2017; (ii) reducing the amount of monthly purchases to €60 billion from April 2017 to December 2017; and (iii) adjusting the parameters of the APP as of January 2017, by decreasing the minimum remaining maturity for eligible securities from two years to one year, and by permitting to the extent necessary purchases of securities with a yield below the deposit facility rate. The ECB reiterated its forward guidance about key interest rates and noted that the APP parameters would be revised if the economic outlook became less favourable.

LIQUIDITY PROVIDED TO THE BANKING SECTOR THROUGH MONETARY POLICY OPERATIONS AND PURCHASE PROGRAMMES

The ECB's purchase programmes had a significant upward impact on the European banking sector's liquidity position in 2016, which reached a historical high of (€2.3 billion). Owing to the predominance of the purchase programmes, the share of MROs in the ECB's overall liquidity provision to banks has fallen from more than 70% in the pre-crisis period, to 2% by the end of 2016. On the other hand, the take-up of TLTRO funding under eventually favourable interest rate terms has increased notably, to 25% of banks' liquidity position or 94% of the total amount of ECB's open market operations. Three out of the four planned TLTRO-II operations were conducted in 2016. Banks' increased demand for longer-term funding reflected to some extent the impact of new regulatory requirements.

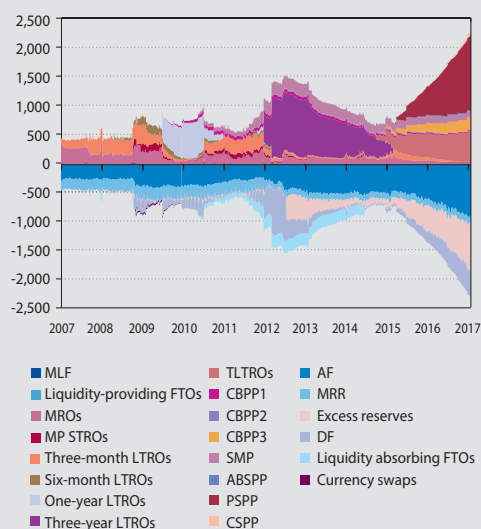
The liquidity provided to the banking sector under the APP has been considerable, especially since the programme was expanded in March 2015 to include purchases of public sector securities. The APP now encompasses purchases of a wide range of private and public sector securities under its four sub-programmes: the public sector purchase programme (PSPP), the asset-backed securities purchase programme (ABSPP), the third covered bond purchase programme (CBPP3) and the corporate sector purchase programme (CSPP). The flexibility provided within the APP allowed the combined average monthly purchases to be kept in line with the target, i.e. €60 billion per month from March 2015 to March 2016 and €80 billion for the rest of the year. The purchases were, however, somewhat lower in August and December, months usually characterised by lower market liquidity. The total amount of securities purchased under the expanded APP was €1.5 trillion at the end of 2016 and PSPP purchases accounted for €1.1 trillion of that amount.

With euro area banks reporting excess liquidity and the ECB acting as the almost exclusive provider of liquidity, interbank money market activity was very low in 2016. Commercial banks placed some of their surplus funds into the deposit facility, the average recourse to which has soared, from e.g. €171 million in 2006, to €326 billion in 2016. The amount of autonomous fac-

⁴ A negative interest rate on a refinancing operation means that if the bank borrows, for example, €100 at a rate of -0.40% per annum, the total amount it repays will be €99.6.



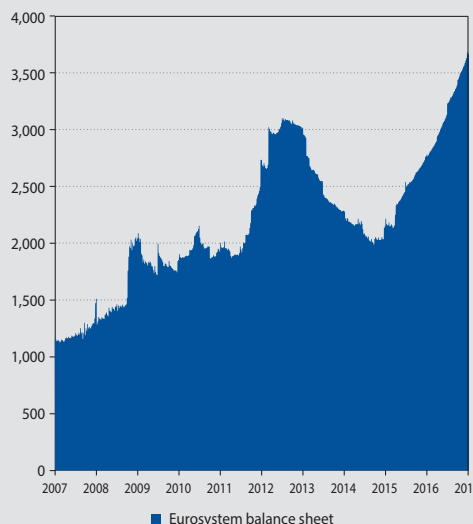
Chart 9 Liquidity position of the Eurosystem (EUR billions)



Sources: ECB, Bloomberg and NBS calculations.

Note: MLF – marginal lending facility; FTO – fine-tuning operation; MRO – main refinancing operation; MP STROs – special-term refinancing operation with a maturity of one maintenance period; LTRO – longer-term refinancing operation; TLTRO – targeted longer-term refinancing operation; CBPP – covered bond purchase programme; SMP – Securities Markets Programme; ABSPP – asset-backed securities purchase programme; PSPP – public sector purchase programme; CSPP – corporate sector purchase programme; AF – autonomous factors; MRR – minimum reserve requirement; DF – deposit facility.

Chart 10 Total assets of the Eurosystem (EUR billions)



Sources: Bloomberg and NBS calculations.

tors has also increased significantly, the largest such factor being government funds held with central banks.

IMPACT OF MONETARY POLICY OPERATIONS ON THE EUROSYSTEM BALANCE SHEET

Since the crisis started in 2007, the ECB has been expanding the Eurosystem balance sheet and

started using it to support monetary policy implementation. The balance sheet has been used to perform a variety of monetary policy interventions, with the extension in particular of balance-sheet tools on the asset side. Owing to the implementation of non-standard monetary policy measures, the total assets on the Eurosystem balance sheet increased from €1 trillion in 2007 to a historical high of €3.7 trillion in 2016. Monetary policy instruments increased to 60% of the assets side of the balance sheet at the end of 2016, while the size of the other financial assets remained relatively stable. On the liabilities side, counterparties' surplus reserve holdings increased significantly, by €1 trillion, and represented 35% of total liabilities at the end of 2016.

3 FINANCIAL MARKET DEVELOPMENTS⁵

The euro area economy showed relatively strong resilience in 2016, with quarter-on-quarter GDP growth accelerating moderately in the second half of the year, despite headwinds such as the United Kingdom's vote to leave the EU, banking sector stress, and geopolitical events. Household consumption remained the mainstay of growth. Financial markets experienced bouts of highly

elevated volatility and uncertainty, interspersed with periods of relative calm. From autumn 2016, however, the markets experienced a return of optimism grounded on improving macroeconomic conditions, the inflation rate's turnaround from a downward trend, and expectations for growth-friendly policies in the United States. Perceptions of risk related to the banking sector

⁵ The text on financial market developments in 2016 uses preliminary data as at 31 December 2016, where available. For the insurance sector, the only data available were older, as at 30 September 2016.