



only slightly. According to preliminary data, Slovakia's ratio of gross external debt to GDP (at current prices) for 2017 was 110.8%, which was 19.9 percentage points higher than the figure for 2016. The ratio of short-term external debt to gross external debt increased by 10.0 percentage points in 2017, to 48.8%. Debt per capita rose by €683 in 2017, to €15,613 as at the end of the year.

NOMINAL AND REAL EFFECTIVE EXCHANGE RATES³

The nominal effective exchange rate (NEER) depreciated in 2017 by an average of 0.2%, year on year, after appreciating by 1.5% in the previous year. Depreciation against the Czech koruna made the largest contribution (0.3 percentage point) to the NEER's decrease. The koruna began appreciating again after the Czech central bank, on 6 April 2017, ended the exchange rate floor that it had been using as an additional instrument for easing monetary policy. Depreciation against the Polish zloty and Russian rouble also had a negative impact on the NEER, 0.2 percentage point in each case. On the other hand, the NEER's overall drop was moderated by the contributions of appreciation against the Chinese renminbi and British pound, 0.3 percentage point

in each case. The pound's weakening stemmed from the continuing high uncertainty surrounding the process of the United Kingdom's withdrawal from the European Union.

Looking at the real effective exchange rate (REER) based on the producer price index, it depreciated in 2017 by an average of 1.4% year on year, which compared with the previous year's depreciation was higher by 0.8 percentage point. In comparison with the NEER, the REER weakened more as a result of the negative inflation differential against Slovakia's most important trading partners. After taking into account trading partners' weights in the REER, the negative inflation differentials that influenced the REER's depreciation the most were those with China (contribution -0.3 percentage point), Hungary and Poland (both contributions -0.2 percentage point). With the REER's estimated equilibrium path continuing to appreciate – due largely to equilibrium labour productivity growth being higher in Slovakia than in its trading partners – the REER's depreciation in 2017 increased its undervaluation. The more undervalued REER continued to support the price competitiveness of domestic firms.

2 EUROSYSTEM MONETARY POLICY

2.1 MONETARY POLICY OPERATIONS

AN AMPLE DEGREE OF MONETARY STIMULUS REMAINS NECESSARY

In 2017 the European Central Bank (ECB) maintained the expansionary monetary policy stance that it had been pursuing since 2014. Acting within the monetary policy operational framework, the ECB implemented monetary policy through the purchasing of selected assets as well as through policy rates (including the particularly significant negative deposit facility rate), with the aim of stimulating an increase in inflation to its medium-term target.

The ECB's Governing Council left the key ECB interest rates unchanged throughout 2017, with

the main refinancing rate standing at 0.00%, the marginal lending facility rate at 0.25%, and the deposit facility rate at -0.40%. Given the environment of abundant liquidity, resulting mainly from Eurosystem asset purchase programmes and unconventional longer-term refinancing operations, short-term money market interest rates remained just above the deposit facility rate. Thus, in 2017, the interest rate on the deposit facility continued to determine the level of the shortest market rates.

The ECB continued to use non-standard measures in the form of asset purchase programmes (APP) as the principal means of implementing monetary policy. These measures complemented the standard open market operations, stand-

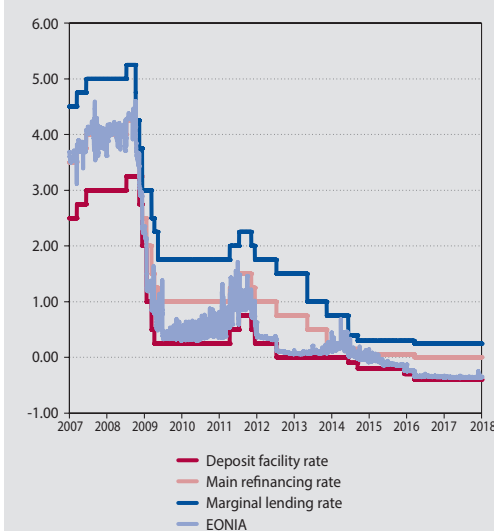
³ The methodology used to calculate the effective exchange rate is published on the NBS website at https://www.nbs.sk/_img/Documents/_Statistika/VybrMakroUkaz/EER/NEER_REER_Methodology.pdf.

ing facilities, and minimum reserve requirements. Open market operations comprise main refinancing operations (MROs), fine-tuning operations and structural operations, as well as the non-standard longer-term refinancing operations (LTROs). The standing facilities consist of the deposit facility and the marginal lending facility (MLF). Back in 2014 the Governing Council responded to undesirably low inflation by adding an APP to its array of monetary policy instruments. The APP comprising the third covered bond purchase programme (CBBP3) and the asset-backed securities purchase programme (ABSPP) was expanded in 2015, to include the public sector purchase programme (PSPP), and then again in 2016, to include the corporate sector purchase programme (CSPP). These purchase programmes, together with the second series of targeted long-term refinancing operations (TLTRO II) have minimised the volume of MRO allotments. In other words, the implementation of monetary policy through non-standard instruments has almost entirely replaced implementation through standard instruments.

The Governing Council's forward guidance is also playing an important role in monetary policy implementation; it indicates the timing of further monetary policy steps, including expectations for the future path of key ECB rates and for the asset purchase programmes. If market participants are able to anticipate monetary policy, their uncertainty diminishes and therefore the effectiveness of monetary policy increases.

In accordance with the Governing Council's decision of December 2016, the APP net purchases made by the Eurosystem continued at a monthly pace of €80 billion in the first quarter of 2017. Following the Governing Council's decision of March 2017 net purchases were reduced to the new monthly pace of €60 billion from April to December. In 2017, with a view to ensuring the continued smooth implementation of the APP, the minimum remaining maturity of securities eligible for the PSPP was decreased from two years to one year, and purchases of securities with a yield to maturity

Chart 8 Key ECB interest rates (percentages)



Source: Bloomberg.

below the deposit facility rate were allowed to the extent necessary.

MONETARY POLICY DECISIONS OF THE ECB IN 2017

The notable recovery of economic activity in 2017 provided the grounds for a substantive, albeit moderately expressed, adjustment to the Governing Council's forward guidance. In June 2017 the Governing Council decided to remove the reference to further rate cuts from its forward guidance.

Although the euro area's economic growth was stable in the third quarter, inflation was still below its medium-term target. In response, the Governing Council decided in October 2017 that the APP would continue at a reduced monthly pace of €30 billion (down from €60 billion) from January to September 2018, i.e. it extended the programme by a further nine months. The Governing Council also decided that the main refinancing operations and the three-month longer-term refinancing operations would continue to be conducted as fixed rate full allotment tender procedures at least until the end of the last reserve maintenance period of 2019.



ECB TO DEVELOP A NEW EURO UNSECURED OVERNIGHT INTEREST RATE

Money market rates are important and widely used in the financial system. As a result they become the basis for reference interest rates, i.e. benchmarks. In the European financial market, the benchmarks are EURIBOR (euro interbank offered rate) and EONIA (euro overnight index average), which are determined on the basis of data from the private financial sector. Since 2013 the Financial Stability Board (FSB) has been heading a worldwide reform of benchmark interest rates, including EURIBOR and EONIA. The main purpose of the reform is to establish interest rate benchmarks on the basis of uniform principles that, among other issues, correspond as far as possible to transaction data and not only to subjective judgement, which is the current basis for determining EURIBOR. However, the administrator of the European benchmarks, the European Money Markets institute (EMMI), has encountered significant difficulties in implementing the reform requirements, to an extent that is raising doubts about the future existence of EONIA.

In view of the particular importance of the overnight benchmark, not only for financial

markets, but also for monetary policy implementation, the ECB's Governing Council announced in September 2017 that it would develop a euro unsecured overnight interest rate. The new rate will complement existing benchmark rates and serve as a backstop reference rate. The ECB plans to develop the rate by the end of 2019 and to base it entirely on transactions in euro that are reported in accordance with the ECB's money market statistical reporting.

Apart from this, in accordance with the issued recommendations of the FSB benchmark reform, the ECB together with the Financial Services and Markets Authority (FSMA), the European Securities and Markets Authority (ESMA) and the European Commission announced the setting-up of a working group to identify and adopt risk-free interest rates (RFRs). This rate should serve as an alternative to existing benchmark rates for instruments with low market risks (such as interest rate risk or liquidity risk). Together with the ECB's new overnight rate, the risk-free rate should broaden the quality of the range of benchmark rates.

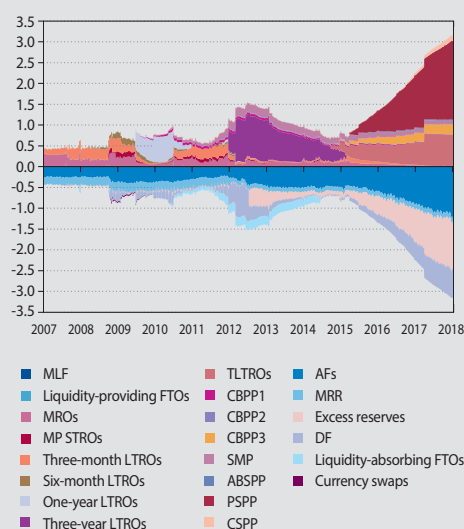
LIQUIDITY PROVIDED TO THE BANKING SECTOR THROUGH MONETARY POLICY OPERATIONS AND PURCHASE PROGRAMMES

The increase in the European banking sector's liquidity position in 2017 was almost entirely due to the APP. Outstanding liquidity reached an all-time high of €3.1 billion, of which APP purchases accounted for 76% and unconventional longer-term refinancing operations for 24%. The share of MROs in the outstanding liquidity provided to banks by the Eurosystem fell from 2% in 2016 to almost zero in 2017, amid an increase in other funding sources and a decline in the need for MRO funding. The last TLTRO-II operation was settled in March 2017 and saw a gross take-up of €233 billion. Although the

amount borrowed by European banks through refinancing operations increased in absolute terms, its share of the outstanding liquidity declined owing to the substantial APP liquidity inflows. The sizeable liquidity surplus was reflected in the recourse to the deposit facility, which was almost 40% higher at the end of 2017 than at the end of the previous year. As a result of this situation there was muted demand for interbank market funding.

APP purchases on the Eurosystem's balance sheet at the end of 2017 amounted to almost €2.4 billion, of which PSPP purchases accounted for almost 80%. Národná banka Slovenska has been participating in the PSPP and the CBPP3. Its

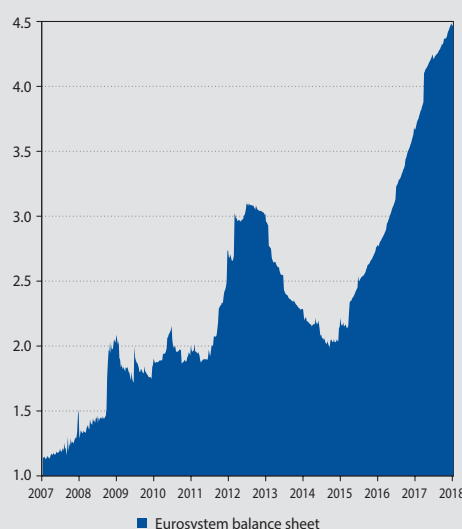
Chart 9 Liquidity position of the Eurosystem (EUR trillions)



Sources: ECB, Bloomberg and NBS calculations.

Note: MLF – marginal lending facility; FTOs – fine-tuning operations; MROs – main refinancing operations; MP STROs – special-term refinancing operations with a maturity of one maintenance period; LTROs – longer-term refinancing operation; TLTROs – 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; AFs – autonomous factors; MRR – minimum reserve requirement; DF – deposit facility.

Chart 10 Total assets of the Eurosystem (EUR trillions)



Sources: Bloomberg, NBS calculations.

IMPACT OF MONETARY POLICY OPERATIONS ON THE EUROSYSTEM BALANCE SHEET

Total assets on the Eurosystem's balance sheet amounted to €4.5 trillion at the end of 2017, which was €0.8 trillion higher compared with the end of 2016. Since the onset of the financial crisis in 2007, when the Eurosystem's total assets stood at €1 trillion, the ECB has taken a variety of standard as well as non-standard monetary policy measures, which have had a direct impact on the size and composition of the Eurosystem balance sheet. These measures have been crucial to ensuring the smooth transmission of accommodative monetary policy.

monetary policy portfolio holdings under these purchase programmes stood at around €20 billion at the end of 2017, representing a year-on-year increase of 30%.

3 FINANCIAL MARKET DEVELOPMENTS

The global economic recovery gathered momentum during the course of 2017. A key factor behind this trend was an increase in investment demand amid improving business sentiment. A related effect was the acceleration in foreign trade growth. Euro area countries also contributed to the overall picture of robust economic activity growth. The favourable path of macro-economic indicators is reducing the direct risks to financial stability. On the other hand, the improving economic performance is accompa-

nied by trends whose cumulative effect is contributing to a build-up of imbalances that could be a threat to financial stability in the medium term. The most significant trend is the continuing increase in public and private sector debt at a time of relaxed lending conditions. The persisting low interest rate environment is expected to continue stoking risk appetite in the financial sector, thereby leading to an increase in financial system vulnerability. The risk of sudden asset repricing in financial markets is significant. A wave