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# MONETARY CONDITIONS AND MONETARY POLICY TRANSMISSION MECHANISM

Information and analytical commentary

Moscow 2023

## MONETARY CONDITIONS AND MONETARY POLICY TRANSMISSION MECHANISM (OCTOBER 2023)

- According to the Bank of Russia's estimates, monetary conditions tightened in September– October. In particular, interest rates in certain segments of the financial market were rising, while households' inflation expectations were decreasing.
- The average spread between RUONIA and the key rate was -15 bp in October (vs -25 bp in September).
- In October, money market rates and OFZ yields increased significantly due to the further tightening of monetary policy and more accommodative fiscal policy in the medium term.
- Following the increase in the key rate, deposit rates continued to rise in September–October. As a result, households displayed their deep interest in ruble deposits, first of all in short-term ones.
- According to recent data, in September–October, interest rates on corporate loans grew faster than those in the retail segment, but the annual increase in loan portfolios remained elevated.
- In September–October, the growth of monetary aggregates continued to slow down due to a decline in the contribution of the budget channel (net claims of the banking system on general government) to their dynamics, while remaining historically high.

### MONETARY POLICY TRANSMISSION

The monetary policy transmission mechanism (or monetary policy transmission) is a sequence of links in the economy through which monetary policy influences demand and, accordingly, inflation. This mechanism is based on interest rates and yields in the key market segments, influencing each other (the key rate has a direct effect on short-term money market rates; short-term rates influence long-term rates and OFZ yields; OFZ yields influence corporate bond yields; bond yields and long-term money market rates affect credit and deposit rates). Rates, in turn, influence the propensity to save, consume, and invest (*interest rate channel* of the transmission mechanism), the ability of borrowers to provide high-quality collateral, and that of banks – to expand lending (*credit and balance-sheet channels*), as well as the wealth of investors (*welfare channel*), and the ruble exchange rate (*foreign exchange channel*).<sup>1</sup>

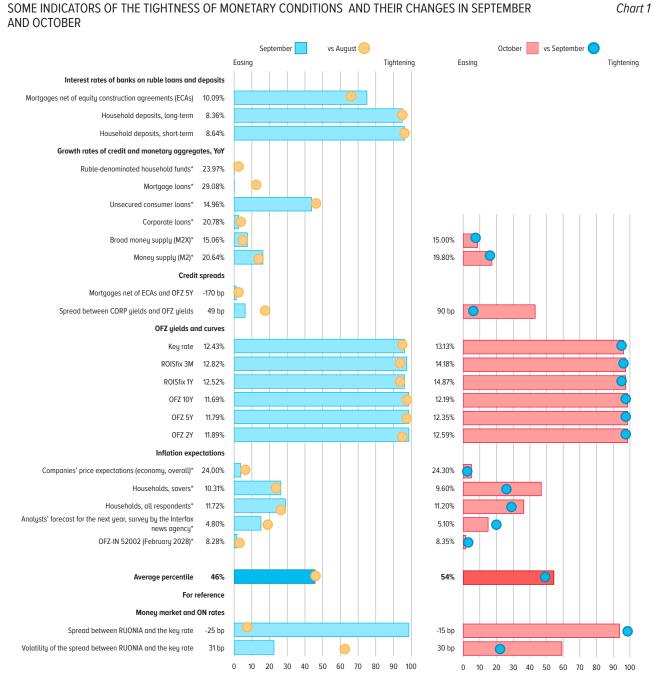
Through any of these channels, higher market rates constrain demand and inflation, while lower ones stimulate them. In addition to monetary policy and demand, inflation and financial market trends are influenced by many other factors taken into account by the Bank of Russia when deciding on the key rate.

This material briefly describes the monetary policy transmission and the conditions of its functioning.

<sup>&</sup>lt;sup>1</sup> See details in Appendix 1 to the <u>Monetary Policy Guidelines</u> for 2024–2026.

### MONETARY CONDITIONS

In September–October, monetary conditions in the Russian economy were becoming more tightened (Chart 1). In particular, OFZ yields, money, credit and deposit market rates were rising, while inflation expectations of households and businesses were decreasing. Nevertheless, high lending activity in both corporate and retail segments demonstrated that there was no considerable tightening of monetary conditions in general. Growth rates of monetary aggregates declined but still remained at their historical highs.



\* The indicators were used to calculate the inverse percentile (higher values are shown to the left).

Note. The indicator panel represents one possible summary visualisation of key indicators to help assess the monetary conditions and their changes. It should not be considered as a comprehensive presentation of all types of indicators relevant to assessing the nature and changes of the monetary conditions.

The chart shows the level of the indicator (in percentiles) relative to the distribution of values from January 2017 to September 2023 (left-hand chart) and to October 2023 (right-hand chart). The round marker shows the indicator's level (in percentiles) as of the previous date. A shift of the indicator to the left relative to the previous date indicates the easing of monetary conditions, a shift to the right – their tightening. Percentiles for high-frequency indicators (OFZ yields, money market rates, exchange rate, spread between corporate bond yields and OFZ yields, etc.) were calculated based on average values for the relevant month. The percentile for the spread between RUONIA and the key rate was taken out of the calculation of the overall average percentile due to high volatility.

Source: Bank of Russia calculations.

### INTEREST RATE CHANNEL OF MONETARY POLICY TRANSMISSION MECHANISM (MPTM)

#### 1. Key rate

At its meeting on 27 October 2023, the Bank of Russia Board of Directors decided to raise the key rate by 200 bp to 15% per annum. The decision was made to stabilise inflationary pressure that is higher than expected. However, the decision did not quite coincide with the expectations of the market and most analysts who predicted +100 bp. Significant proinflationary risks materialised, including steadily rising domestic demand outstripping supply capacities, growth in real wages amid labour shortages and a weakening of the ruble. According to the estimate as of 23 October, annual inflation was 6.6% vs 6% in September.

Most market participants expect that the key rate will stay at 15% per annum until the end of the year and be gradually decreasing starting from 2024 Q2 (Table 1).

IN OCTOBER, MARKET PARTICIPANTS REVISED EXPECTATIONS FOR THE FURTHER KEY RATE PATH UPWARDS

Table 1

Key rate expectations based on market indicators (instrument)	December 2023	June 2024
ROISfix	15.0 (13.0–13.5)	13.0–13.5 (11.5–12.0)
Analysts' key rate expectations*	2023 average	2024 average
Survey by the Bank of Russia	9.8 (9.3)	12.6 (10.0)

\* Survey dates: 13–17 October 2023. Brackets are used to show the results of the previous survey.

Sources: Bank of Russia calculations, NFA.

#### 2. Money market and overnight rates (RUONIA)

In October, the average spread between RUONIA<sup>1</sup> (the Bank of Russia's operational benchmark) and the Bank of Russia key rate<sup>2</sup> was -15 bp (in September: -25 bp; year to date: -23 bp) (Chart 4). The spread volatility was 30 bp (in September: 31 bp; year to date: 25 bp).

In October, the average daily liquidity deficit<sup>3</sup> increased by P0.5 trillion to P0.7 trillion mainly due to budget operations and growth in required reserves (RRs) caused by the increased reservable base.

In October, the spread between RUONIA and the key rate narrowed, and the spread volatility remained high. In early October, the RUONIA rate stayed below the key rate. By that time, many banks had already mostly completed their RRs averaging, and the demand for liquidity was low. This exerted downward pressure on money market rates. At the end of the September<sup>4</sup> required reserves averaging period (AP), on 9 and 10 October, the Bank of Russia held two fine-tuning deposit auctions to absorb excess liquidity. This helped bring RUONIA closer to the key rate during that period of time.

In the middle of the month, since the October<sup>5</sup> AP, the rates' movements depended on market participants' expectations of the key rate increase at the meeting of the Bank of Russia Board of

<sup>&</sup>lt;sup>1</sup> RUONIA (Ruble Overnight Index Average) is the weighted average interest rate on overnight interbank ruble loans (deposits) reflecting the cost of unsecured overnight borrowing.

<sup>&</sup>lt;sup>2</sup> The operational objective of the Bank of Russia's monetary policy within the inflation targeting strategy is to maintain rates in the unsecured overnight segment of the interbank money market close to the Bank of Russia key rate.

<sup>&</sup>lt;sup>3</sup> The liquidity balance is calculated using a revised methodology. For more details, see <u>MPR 4/23</u>.

<sup>4 13.09.2023-10.10.2023.</sup> 

<sup>&</sup>lt;sup>5</sup> 11.10.2023 – 14.11.2023.

Directors on 27 October. As in the several previous APs, banks strove to average their RRs ahead of schedule, keep more funds in correspondent accounts during the period before the key rate increase and reduce balances in the following AP days. This allowed banks to somewhat decrease the expenditure on compliance with required reserve requirements in general over the AP. The implementation of this RRs averaging strategy by many banks caused an increase in the cost of borrowings in the money market and a higher demand for the Bank of Russia's refinancing operations since the beginning of the October AP till the key rate increase. As a result, the spread between RUONIA and the key rate during this period was positive. However, some banks traditionally placing funds in the money market reduced the maturity of their operations during the period prior to the key rate increase. This led to an increase in RUONIA-linked transactions and higher activity in the overnight repo segment of the Moscow Exchange.

In October, budget and other operations led to a reduction in the liquidity balance by PO.3 trillion. One of the reasons was a suspension<sup>6</sup> by the Bank of Russia of the mirroring of fiscal rule-based operations conducted by the Russian Ministry of Finance in the domestic foreign exchange market. These operations of the Russian Ministry of Finance result in an outflow of liquidity because the Ministry uses part of the budget funds in the Treasury Single Account, which the Federal Treasury (FT) could, for example, deposit with banks, for purchasing foreign currency. Earlier, this outflow was offset by an inflow of liquidity from the Bank of Russia's mirroring transactions. However, the fiscal rule-based operations of the Russian Ministry of Finance ceased to be neutral for liquidity after their suspension. The amount of funds raised by the Russian Ministry of Finance at OFZ auctions totalled PO.1 trillion, while repayments reached PO.2 trillion.

In October, the demand for cash was significantly below the seasonal levels. The amount of cash<sup>7</sup> in circulation decreased by <del>PO.1</del> trillion. This was also due to the ongoing return of cash to banks amid growth in deposit rates.

In October, demand at the one-month repo auction did not change and totalled P0.2 trillion. The limit for the said auction remained at the level of P0.1 trillion.

The forecast of the liquidity surplus for the end of 2023 is estimated in the range of PO-0.9 trillion.<sup>8</sup> The average liquidity balance for the December AP is estimated from a surplus of PO.4 trillion to a deficit of PO.5 trillion. Depending on fiscal operations, these figures may significantly change in the last days of the year. The Bank of Russia's predictions rest on fiscal projections of the Russian Ministry of Finance presented in the draft federal budget for 2023–2026 and are based on long standing practices. As of the end of 2023, the amount of cash in circulation is forecast to range from P2.5 trillion to P3.0 trillion. The forecast of required reserves takes into consideration the increase in this indicator over the period under review owing to the overall growth in broad money supply. The steps implemented by the Bank of Russia to raise the required reserve ratios in 2023 are also reflected in the above estimate.

#### 3. Money and debt market yield curves

**Money market curves.** Amid increasing inflationary pressure, the Bank of Russia decided to raise the key rate again at its meeting in October, which led to an upward movement of the ROISfix<sup>9</sup> curve. The most significant changes occurred for maturities for up to one year: the growth was 150–190 bp.

Market participants admit an easing of monetary policy no earlier than 2024 Q2 after the Bank of Russia signals that it is ready to maintain tight monetary conditions for a long time to limit the extent of inflation deviation from the target.

<sup>&</sup>lt;sup>6</sup> The press release of the Bank of Russia, dated 9 August 2023.

<sup>&</sup>lt;sup>7</sup> According to recent data.

<sup>&</sup>lt;sup>8</sup> For details, see <u>MPR 4/23</u>.

<sup>&</sup>lt;sup>9</sup> The OIS (ROISfix) curve – indicative rates (fixing) on RUONIA interest rate swaps.

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**OFZ yield curve.** In October, OFZ yields continued to rise along the entire curve length (on average, by 35–50 bp): OFZ 1Y – 12.95% (+38 bp); OFZ 2Y – 12.78% (+39 bp); OFZ 5Y – 12.48% (+40 bp); and OFZ 10Y – 12.50% (+56 bp). The short end of the curve moved upwards, demonstrating a sharper tightening of monetary policy than the market expected and the maintenance of high rates for a longer period of time. Long-term OFZ yields increased, including due to the reconsideration by market participants of the probability of the materialisation of a series of proinflationary risks.

The OFZ curve has become almost flat. In October, the growth in short-term yields, recorded in previous months, was offset by a more significant upward movement of the long end of the curve. The spread between ten- and two-year OFZ yields demonstrated negative values (-28 bp; +17 bp MoM). The structure of the OFZ secondary market participants did not change. Banks remained net sellers, while non-financial organisations and individuals were net buyers.

**Implied inflation.**<sup>10</sup> In October, average monthly implied inflation from OFZ-IN 52002 (2028) edged up to 8.46% (+14 bp). This is the maximum level since March 2022 (8.59%) and much higher than the average for 2023 Q3 (7.82%). The average real yields on OFZ-IN bonds increased (8.34% in October vs 8.10% in September).

**Primary OFZ market.** In October, the Russian Ministry of Finance slightly intensified its activity in the OFZ market compared to a month before (revenues totalled ₽143 billion in October vs ₽85 billion in September). Average weekly demand for securities remained almost unchanged (₽112 billion in October vs ₽114 billion in September) and was mainly created by SICIs and NPFs. Investors demonstrated a deeper interest in OFZ-PK issues due to expectations of a further monetary policy tightening. Moreover, the Ministry offered record high premiums above secondary market yields (up to +40 bp) for placing standard long-term securities. The public debt market was supported by the redemption of OFZ bonds in the amount of ₽0.15 trillion. Since early 2023, OFZ placements by the Russian Ministry of Finance have reached ₽2.4 trillion, i.e. 93% of ₽2.6 trillion under the updated annual borrowing plan.

#### 4. Corporate bond market

**Secondary market.** Based on the IFX–Cbonds index, the yields of corporate bonds went up again to 13.8% (+67 bp) as of the end of October. The average monthly spread between corporate and government bond yields widened (90 bp; +41 bp). The spread returned to previous levels after narrowing in September because corporate yields adjusted to the changes in monetary policy more slowly than OFZ yields.

**Primary market.** In October, the amount of funds raised by corporate borrowers was comparable to the average since early 2023 ( £466 billion in October vs the average of £485 billion from January to October 2023 ). Almost the total volume of placements was available to a wide range of investors (£447 billion in October vs £233 billion in September). The number of issuers of market issues edged up (44 in October vs 36 in September). The retail sector and financial companies, including leasing ones, were the key borrowers. As of the end of October, the market of corporate bonds totalled £23.4 trillion (vs £23.36 trillion in September; +30% YoY).

In October, the amount of placed substitute bonds increased (¥45.5 billion in October vs ¥24.4 billion in September). However, according to the Cbonds index, yields dropped to 7.77% (-60 bp MoM) amid persistently high demand for securities. Highly rated oil and gas companies remained the issuers of substitute bonds. Also, a company from the high-tech sector entered the market for the first time.

<sup>&</sup>lt;sup>10</sup> <u>Methodology for the calculation of the indicator</u>.

#### 5. Credit and deposit market

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**Deposit rates.** In September, retail deposit rates were rising again following OFZ yields which went up in response to the continued monetary policy tightening and revised expectations regarding the future key rate path.

According to preliminary data, deposit rates in the segments up to and over one year were higher by 0.8 pp and 1.1 pp, respectively, than the August levels, demonstrating the delayed transmission of earlier made monetary policy decisions to interest rate movements for longer maturities. Concurrently, there was the most noticeable increase in rates on deposits with maturities of over three years in contrast to the previous month when mainly rates on short-term deposits were rising. Banks' interest in getting stable long-term funding could be also indicative of their intention to avoid a sharp reduction in the maturity of bank deposit portfolios amid rapidly growing rates on short-term deposits. Nevertheless, the structure of raising funds remained the same in September compared to August. There still was a lot of activity in all key time deposit segments.

According to recent data, retail deposit rates continued to increase in October. The FRG100<sup>11</sup> index was gradually rising during the entire month and reached 9.4% per annum by early November, which is the highest level since mid-April 2022 (Chart 12). According to estimates, the growth in rates was mainly observed in the segment with maturities from six to 12 months, driven by competition between the major market participants.

The decision made by the Bank of Russia at its meeting on 27 October to increase the key rate to 15% per annum and the subsequent upward shift of the OFZ<sup>12</sup> curve will help maintain the upward trend in deposit rates in the coming months. Growth in rates is possible in both the short- and long-term segments because the October tightening of monetary policy was more significant than the market had expected, and the Bank of Russia highlighted the need to maintain tight monetary conditions in the economy for a long time due to the persisting high proinflationary risks over the medium-term horizon.<sup>13</sup>

**Deposit operations.** In September, households' funds with banks<sup>14</sup> continued to grow, supported by high deposit rates and households' propensity to save.<sup>15</sup> As of the end of the month, their annual increase<sup>16</sup> was 17.1% compared to 13.8% in August. However, balances were increasing only in the segment of short-term deposits, while current accounts and portfolios of long-term deposits were decreasing as in the previous month (Chart 13). On the one hand, such a shift in the maturity structure of retail deposits could result from a higher appetite of depositors for deposit products with maturities of up to one year, for which banks were adjusting rates upwards most actively during the first weeks after the key rate increase on 15 August.

On the other hand, record-setting activity in the mortgage market probably suggested that households could have withdrawn part of their savings from long-term deposits to use them as down payments to take out mortgage loans to improve their housing conditions before rates were increased and parameters of subsidised programmes were tightened.<sup>17</sup> Consequently, the growth in

<sup>&</sup>lt;sup>11</sup> The average interest rate of the 80 largest deposit banks on deposits for up to one year in an amount of at least £100,000, according to the Frank RG news agency.

<sup>&</sup>lt;sup>12</sup> See details in Subsection 'Money and debt market yield curves'.

<sup>&</sup>lt;sup>13</sup> The press release of the Bank of Russia, dated 27 October 2023.

<sup>&</sup>lt;sup>14</sup> Hereinafter, individuals' funds with banks include balances in time deposits, demand deposits and current accounts, but do not include escrow accounts under equity construction contracts.

<sup>&</sup>lt;sup>15</sup> Cm. Inflation expectations and consumer sentiment No. 10 (82), October 2023.

<sup>&</sup>lt;sup>16</sup> Hereinafter, increases in banks' balance sheet indicators are calculated based on the reporting data of operating credit institutions included in the State Register as of the reporting date. Increases in foreign currency claims and liabilities are calculated in US dollar terms. Where increases in the indicators comprising foreign currency and ruble components are calculated herein, the growth of the foreign currency component is converted into rubles using the period average exchange rate.

<sup>&</sup>lt;sup>17</sup> See Subsection 'Retail lending' for details.

the amount of households' funds in escrow accounts reached its historic high of over ₽400 billion in September, with an average monthly increase of about ₽100 billion since 2020.

Nevertheless, households' foreign currency savings continued to shrink and could be partly converted into rubles by clients for placing the funds in ruble deposits or purchasing real estate amid rising ruble rates. Given some weakening of the ruble, the share of foreign currency in the retail deposit portfolio remained actually unchanged and totalled 10.1% as of the end of September vs 10.2% in August.

According to preliminary estimates, in October, households continued to demonstrate their intense interest in time ruble deposits and, among other things, transferred funds from current accounts and savings in foreign currency into such deposits. Maintaining stable dynamics of retail deposits in the short run will be supported by the tightening of monetary conditions in the wake of the key rate increases by the Bank of Russia.

**Credit rates.** Interest rates on loans continued to grow in September–October as bank funding was getting more expensive amid the tightening of monetary policy and tougher Bank of Russia key rate communications (Chart 11). Credit rates were rising, including during the periods between the Bank of Russia's decisions on the key rate, amid tough monetary policy rhetoric (Chart 12). According to recent data, in October, banks were raising rates on corporate and retail loans.

According to preliminary data, in September, interest rates on loans to non-financial organisations increased by 1.4 pp in the short-term segment, and by 0.8 pp – in the long-term one. The increase in interest rates on short-term loans, exceeding the change in long-term loans, was associated with inverted curves of transfer rates and expectations of monetary policy easing in the medium term in the banking sector. In September, weighted average rates on loans to households for a period of up to one year increased by 0.7 pp, and on loans over one year – by 0.1 pp, while average rates on market-based mortgage loans were close to 14.5% vs 11.5% in mid-2023.

Slower dynamics of changes in weighted average rates on long-term loans to households were associated with elevated demand for mortgages, observed in September.<sup>18</sup> The weighted average rate on ruble-denominated housing mortgage loans declined by 0.1 pp to 7.9% per annum due to a larger proportion of subsidised lending transactions when issuing new loans.

In 2024 Q1, credit rates may continue to rise due in part to the implemented monetary policy tightening.

**Corporate lending.** In September, growth rates of corporate lending stabilised after a period of their increase since 2023 Q1 until the monetary policy tightening and their decrease in August. The annual increase in corporate lending<sup>19</sup> was 20.8% or +0.1 pp in September compared to August (Chart 14). Nevertheless, growth in the short-term segment continued to speed up, including due to companies' approaches to the management of funds amid more expensive financing. Annual growth rates of long-term lending totalling about 75% of the corporate loan portfolio slowed down. In September, outstanding corporate loans grew owing to borrowings in rubles. The portfolio of corporate loans in foreign currency remained almost unchanged. According to recent data, in October, the increase in corporate lending was higher than in September.

The Bank of Russia forecasts<sup>20</sup> that the corporate lending growth will slow down in 2024 with a higher path projected for the key rate. An increase in government spending scheduled for 2024 may also replace companies' need for loans. Despite tighter monetary conditions, enterprises improved their estimates of future demand amid high price expectations in October.<sup>21</sup>

<sup>&</sup>lt;sup>18</sup> See Subsection 'Retail lending' for details.

<sup>&</sup>lt;sup>19</sup> Hereinafter, growth in lending to non-financial organisations, financial institutions, and individual entrepreneurs excludes claims acquired by banks.

<sup>&</sup>lt;sup>20</sup> Bank of Russia's medium-term forecast following the key rate decision made on 27 October 2023.

<sup>&</sup>lt;sup>21</sup> Monitoring of Businesses: Assessments, Expectations and Comments No. 10, October 2023.

**Retail lending.** In September, retail lending was expanding with a slower monthly increase compared to August (Chart 14). The moving annual total growth in the retail loan portfolio<sup>22</sup> was 23% in September, having increased by 1.6 pp month-on-month. According to recent estimates, lending to individuals slowed down in October, the decline in monthly growth rates was about 1 pp. In October, the dynamics of the retail portfolio were affected by a decrease in consumer loans issued, while issues of mortgage loans remained close to the values of 2022–2023 H1.

In September, the increase in the retail loan portfolio was supported by the expansion of the mortgage segment (Chart 15), while issues of new mortgage loans reached their historical high of ₽955 billion due to the continued higher demand and the increased supply of loans by banks amid households' expectations of a rise in credit rates and a tightening of subsidised mortgage lending parameters. The proportion of government subsidised loans in mortgage transactions increased to about 70% in September vs about 50% in 2023 H1. The annual increase in the portfolio of housing mortgage loans<sup>23</sup> rose by 2.2 pp to 29.1% in September.

The annual growth rate of unsecured consumer lending<sup>24</sup> rose to 15% in September vs 14.4% in August. However, according to the Bank of Russia, the issue of unsecured consumer loans declined in September as well as their share in the issue of retail loans.

The Bank of Russia forecasts<sup>25</sup> that retail lending growth rates will be decreasing over the remainder of 2023 and in 2024 amid tighter monetary conditions and households' increased propensity to save. As for the credit supply side, there are no reasons to expect an increase in the appetite for risk in the banking sector against a slowdown in retail lending growth. The absence of excessively optimistic expectations will fundamentally limit the risk appetite. Macroprudential policy measures will also limit overheating in the retail segment and enhance the normalisation of lending to households amid monetary policy tightening.

### **OTHER FINANCIAL MARKET SEGMENTS**

#### 1. Exchange rate (foreign exchange channel)

The ruble predominantly strengthened in October. By the end of the month, the exchange rate was 93.4 rubles per US dollar (+4.7%), 99.1 rubles per euro (+4.1%), and 12.75 rubles per yuan (+5.5%), respectively. The monthly average exchange rate of the ruble remained almost unchanged (-0.3% MoM). Increased sales of foreign currency revenues by exporters amid rising oil prices supported the ruble. Also, the decisions made by the Bank of Russia in recent months on increasing the key rate were gradually affecting the ruble exchange rate dynamics. In addition, the appreciation of the ruble was supported by the absence of fiscal rule-based foreign currency purchases in the domestic market. The sales of foreign currency by exporters in the second half of the month could also rose due to measures related to mandatory sales of foreign currency revenues.

The ruble exchange rate fluctuations were slightly up compared to September. The actual monthly exchange rate volatility was 14.1% (vs 11.1% MoM).

The real effective exchange rate of the ruble (hereinafter, the REER), calculated against the currencies of the main foreign trade partners, slightly strengthened by +0.2% in September (vs -4.4% in August; -13.8% YoY). According to preliminary data, in October, the REER increased by 3.6% vs September, staying below its median value of the recent years (-11.3% vs the median of January 2015–October 2023).

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<sup>&</sup>lt;sup>22</sup> Hereinafter, growth in household lending does not include claims acquired by banks.

<sup>&</sup>lt;sup>23</sup> Housing mortgage loans, net of claims on such loans acquired by banks.

<sup>&</sup>lt;sup>24</sup> Loans grouped into homogeneous loan portfolios.

<sup>&</sup>lt;sup>25</sup> Bank of Russia's medium-term forecast following the key rate decision made on 27 October 2023.

#### 2. Capital market (welfare channel)

In October, the Russian stock market demonstrated positive dynamics again and grew by 2.2% at the end of the month, but did not surpass the September high. The Moscow Exchange index was 3,201 bp at the end of the month (+47.7% YoY). Concurrently, in September, the Russian Volatility Index (RVI) edged down to 26 points (-2 MoM; 28 points on average over 2021).

Consumer and oil and gas sector securities demonstrated the most significant price growth, while shares of transport, construction, chemical and petrochemical companies lost in price at the end of the month.

In October, the total amount of transactions across all Moscow Exchange markets increased by 89% YoY. The trading in shares, depositary receipts and investment fund units totalled ₽2.2 trillion (vs ₽1.0 trillion in October 2022). Average daily trades reached ₽102 billion (vs ₽48 billion in October 2022).

#### Foreign markets

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The pace and percentages of policy rate increases in advanced economies (AEs) and emerging market economies (EMEs) continued to decline. The weighted average policy rate in advanced economies remained unchanged at 4.46% (+0 bp MoM; +120 bp YtD).

Central banks of emerging market economies were mainly reducing policy rates at their meetings in September. In particular, policy rates were decreased in Kazakhstan, Armenia, and Poland. As of the end of the month, the weighted average policy rate decreased in Latin America to 11.26% (-6 bp; -37 bp), in Central and Eastern Europe, and Central Asia to 8.71% (-18 bp; -61 bp), in Africa to 11.02% (0 bp; +124 bp). The weighted average policy rate in South and Southeast Asia grew to 6.07% (+6 bp; +40 bp). In Turkey, the policy rate was raised for the fifth time in a row (from 30% by 500 bp).

Yields on long-term US Treasury bond continued to grow in September. In view of strong macroeconomic statistics, the market again reassessed expectations for long-lasting tight monetary conditions. The curve went up significantly at the long end but remained actually unchanged at the short one (UST 2Y: 5.07%, +4 bp MoM; UST 10Y: 4.88%, +29 bp MoM). Other advanced economies also demonstrated an increase in yields.

Amid the continued growth in yields on ten-year Japanese government bonds that were traded at around 0.9% in late October, the Bank of Japan once again eased its yield curve control policy. However, Japan's monetary policy remains extremely loose, while the spread between yields on Japanese government bonds and yields in other major markets remains high. Concurrently, the German yield curve edged down in October after the publication of statistics indicating a slowdown in the economy and inflation in the country and the euro area, as well as the ECB's decision not to raise policy rates.

Rising yields continued to put pressure on global stock markets in October. AEs' stock indices sank as of the end of month (S&P 500: -2.2%, Stoxx 600: -3.7%, Nikkei 225: -3.1%) (Chart 19). Stock indices in national currencies of emerging market economies mainly decreased as well (MSCI EM: -4.0%; Bovespa: -2.9%; IPC Mexico: -3.6%; SSE Composite: -3.0%; BIST 100: -9.9%) (Chart 19). The tightening of global monetary conditions and geopolitical uncertainty affect market sentiment. In particular, after the escalation of the conflict in the Middle East, the Turkish BIST100 index fell by about 10%. This was the first drop as of the end of the month since April 2023. From May to September, BIST100 gained more than 80% owing to demand from investors who tried to protect their portfolios from inflation. Currencies of emerging market economies also remained under pressure and continued to depreciate against the US dollar in October (BRL: -0.1%; MXN: -3.7%; CNY: -0.3% MoM).

### **MONEY SUPPLY**

In September, growth in monetary aggregates continued to slow down, which was mainly due to a further decline in the role of budget operations in the money supply, as well as the faster growth of funds in escrow accounts excluded from the money supply. Nevertheless, increasing claims on the economy<sup>26</sup> once again renewed the local high – 21.5% YoY vs 20.1% a month earlier due to the record-setting activity in the mortgage sector and persistently high demand for borrowings from companies.

As of the end of September, the annual growth of the money supply in the national definition (M2) totalled 20.6%, while that of the broad money supply (M2X) – 15.1% after 22.9% and 15.5% in August, respectively (Chart 20). Concurrently, the role of ruble-denominated deposits of households in the structure of monetary aggregates continued to grow.

According to preliminary estimates, in October, due to the continuing reduction in the contribution of budget operations, the annual growth of M2 totalled 19.8%, while that of M2X – 15.0%.

<sup>&</sup>lt;sup>26</sup> The banking system's claims on the economy mean all claims of the banking system on non-financial organisations and financial institutions, and households in Russian rubles, foreign currency, and precious metals, which include loans extended (including overdue loans), overdue interest on loans, credit institutions' investment in debt and equity securities and promissory notes, as well as other forms of participation in equity of non-financial organisations and financial institutions, and other receivables under settlement operations with non-financial organisations, financial institutions, and households.

### **CHARTS AND TABLES**

#### THE LIQUIDITY DEFICIT INCREASED IN OCTOBER

(START OF BUSINESS, BILLIONS OF RUBLES)

	01.01.2022	01.01.2023	01.04.2023	01.07.2023	01.10.2023	01.11.2023
Liquidity deficit (+) / surplus (-)	-1,134	-3,471	-1,982	-1,030	796	1,026
Bank of Russia claims on credit institutions	909	1,808	2,072	1,926	2,107	2,264
Auction-based facilities	116	1,492	1,766	1,378	1,203	1,100
– repos and FX swaps	116	1,492	1,766	1,378	1,203	1,100
Standing facilities	793	317	306	548	905	1,164
<ul> <li>repos and FX swaps</li> </ul>	3	8	8	2	0	0
- secured loans	790	309	299	547	905	1,164
The Bank of Russia's liabilities to credit institutions	2,804	4,949	3,544	2,754	2,890	3,336
Deposits	2,804	4,949	3,544	2,754	2,890	3,336
– auction-based facilities	1,626	3,621	2,450	1,747	1,976	1,562
– standing facilities	1,178	1,328	1,094	1,008	914	1,774
Reverse facilities, other than instruments for regulating bank liquidity and money market rates*	204	331	354	282	344	545
Correspondent accounts with the Bank of Russia	2,651	2,984	3,317	4,105	3,269	3,010
Average amount of required reserves	3,207	2,322	2,453	3,621	4,504	4,562

\* The difference between the Bank of Russia's claims on credit institutions under specialised facilities, operations under the additional liquidity facility, loans within irrevocable credit lines and the Bank of Russia's obligations to return rubles under Foreign Currency/RUB sell/buy FX swaps conducted by the Bank of Russia. Source: Bank of Russia calculations.

#### THE LIQUIDITY SURPLUS FORECAST FOR THE END OF 2023 WAS INCREASED BY P0.2 TRILLION TO THE RANGE FROM ₽0 TO ₽0.9 TRILLION (TRILLIONS OF RUBLES)

Table 3

	2022 (actual)	January – October 2023	October 2023	2023 (forecast)
1. Liquidity factors	1.5	-2.3	-0.2	[-1.1; -0.4]
<ul> <li>change in the balances of funds in general government accounts with the Bank of Russia, and other operations*</li> </ul>		-0.2	-0.3	[2.1; 2.3]
– change in the amount of cash in circulation		-1.9	0.1	[-3.0; -2.5]
– Bank of Russia interventions in the domestic foreign exchange market	-0.1	-	-	-
- regulation of banks' required reserves with the Bank of Russia		-0.1	0.0	-0.1
2. Change in the averaged amount of required reserves		2.2	0.1	[2.2; 2.4]
3. Change in banks' claims on deposits with the Bank of Russia and coupon OBRs		-1.6	0.4	[-3.8; -2.9]
4. Change in outstanding amounts on Bank of Russia refinancing operations (4 = 2 + 3 - 1)		2.9	0.7	-0.3
Liquidity deficit (+)/ surplus (-) (as of the period-end)		1.	0	[-0.9; 0.0]

\* Including fiscal rule-based operations to buy (sell) foreign currency in the domestic FX market and other operations. \*\* The forecast for the end of the year implies the uniform averaging of required reserves by banks and correspondent account balances close to the required ratio.

Source: Bank of Russia calculations.

Table 2

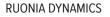
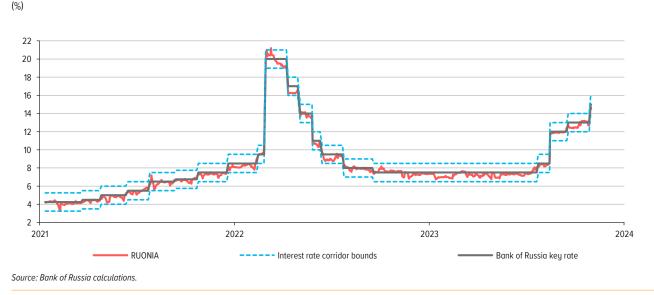
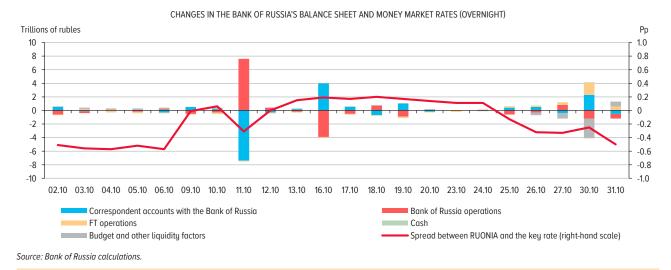


Chart 2



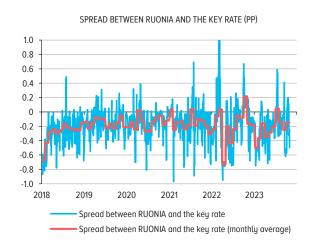
#### CASH LED TO LIQUIDITY INFLOW IN OCTOBER 2023

Chart 3

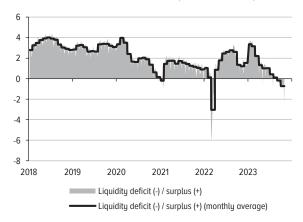


THE AVERAGE MONTHLY SPREAD BETWEEN RUONIA AND THE BANK OF RUSSIA KEY RATE NARROWED

Chart 4



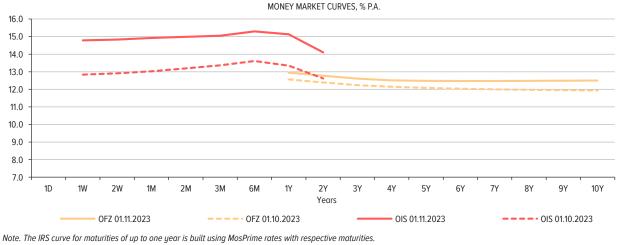
LIQUIDITY DEFICIT/SURPLUS (TRILLION OF RUBLES)



Source: Bank of Russia calculations.

#### IN OCTOBER, MONEY MARKET RATES ROSE AMID MONETARY POLICY TIGHTENING BY THE BANK OF RUSSIA

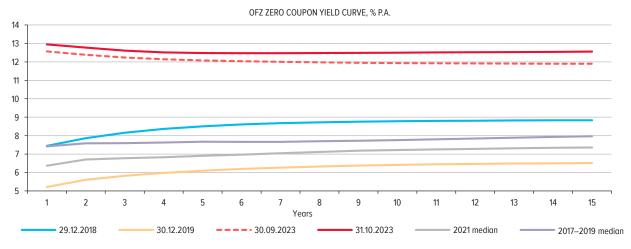
Chart 5



Source: Cbonds, NFA, Bank of Russia calculations.

#### OFZ YIELD CURVE MOVED UPWARDS ALONG ITS ENTIRE LENGTH AND BECAME ALMOST FLAT

Chart 6



Sources: Moscow Exchange, Cbonds, Bank of Russia calculations.

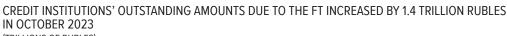
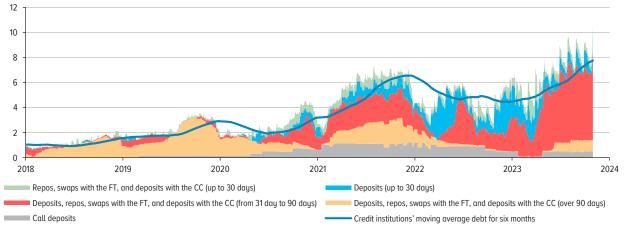


Chart 7





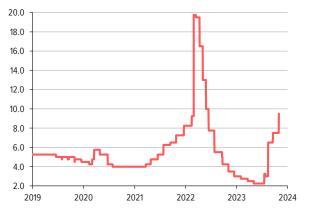
Sources: Federal Treasury, Bank of Russia calculations.

#### THE BANK OF RUSSIA'S BALANCE SHEET Chart 8 (TRILLIONS OF RUBLES) 10 8 6 4 2 0 -2 -4 -6 -8 -10 2008 2011 2013 2014 2019 2020 2021 2022 2023 2024 2009 2010 2012 2015 2016 2017 2018 Liquidity providing operations Bank of Russia bonds Liquidity factors\* Deposits with the Bank of Russia Correspondent accounts with the Bank of Russia Required reserves in special accounts Liquidity deficit/surplus

\* This item is balancing and it comprises changes in all other, not differentiated, items of the Bank of Russia's balance sheet. Source: Bank of Russia calculations.

#### THE SPREAD BETWEEN RUSSIAN AND US GOVERNMENT BOND YIELDS EXPANDED AGAIN

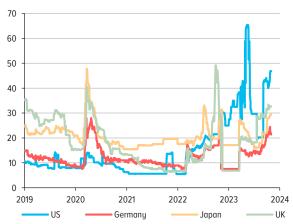
Chart 9



SPREAD BETWEEN THE BANK OF RUSSIA KEY RATE AND THE US FED RATE, PP

Sources: Moscow Exchange, Cbonds, Bank of Russia calculations.

#### CDS SPREADS IN MOST COUNTRIES SLIGHTLY LOWERED



5Y CDS OF ADVANCED ECONOMIES, BP

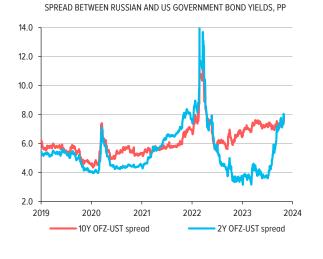
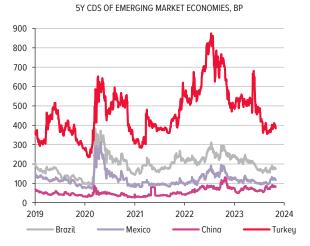


Chart 10



Sources: Cbonds, Bank of Russia calculations.

#### GROWTH IN RATES ON OFFERED LOANS IN SEPTEMBER PASSED THROUGH TO THE WEIGHTED AVERAGE COST OF TRANSACTIONS WITH A TIME LAG

25 20 15 10 5 0 2017 2018 2019 2020 2021 2022 2023 Three-year OFZ yields Household loans Household deposits Key rate Loans to non-financial organisations Source: Bank of Russia.

RATES ON BANKS' LONG-TERM RUBLE TRANSACTIONS, % P.A.

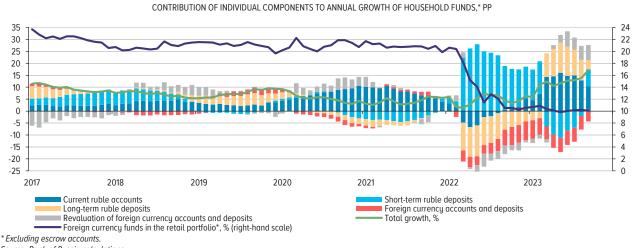
#### IN SEPTEMBER-OCTOBER, BANKING RATES WERE RISING IN THE PERIODS BETWEEN THE KEY RATE DECISIONS AMID Chart 12 TOUGH MONETARY POLICY COMMUNICATION



IN SEPTEMBER, HOUSEHOLDS' FUNDS WITH BANKS GREW MAINLY DUE TO SHORT-TERM RUBLE DEPOSITS

Chart 13

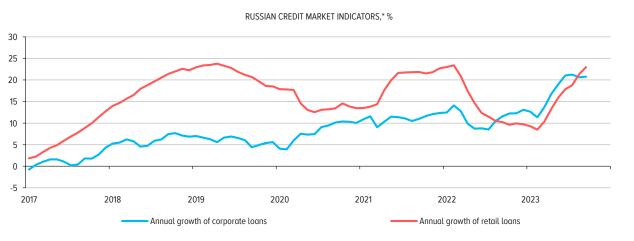
Chart 11



Source: Bank of Russia calculations.

#### DYNAMICS OF HIGH-FREQUENCY INTEREST RATE INDICATORS, % P.A.

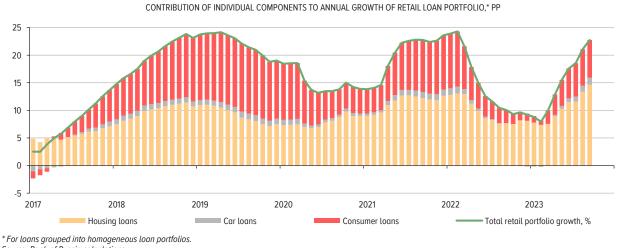
#### MONTHLY GROWTH IN LENDING TO THE REAL SECTOR SLOWED DOWN IN SEPTEMBER



\* Since 1 February 2021, the portfolios of corporate and retail loans include acquired claims. The portfolios' increases were calculated net of acquired claims. Source: Bank of Russia calculations.

IN SEPTEMBER, HISTORICAL MAXIMUM DEMAND FOR MORTGAGE LENDING WAS DUE TO EXPECTATIONS FOR INCREASING RATES AND TIGHTENING PARAMETERS OF SUBSIDISED MORTGAGE PROGRAMMES

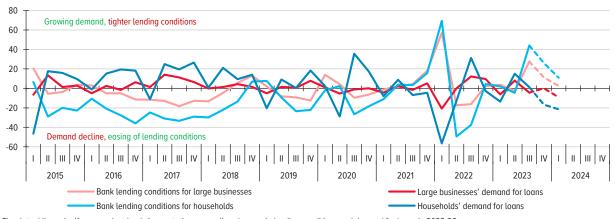
Chart 15



Source: Bank of Russia calculations.

THE KEY RATE INCREASE IN AUGUST-SEPTEMBER WILL LEAD TO A MORE NOTABLE TIGHTENING OF LENDING CONDITIONS THAN EXPECTED BY BANKS IN 2023 Q3

Chart 16



INDICES OF LENDING CONDITIONS AND DEMAND FOR LOANS,\* PP

\* The dotted lines signify respondent banks' expectations regarding changes in lending conditions and demand for loans in 2023 Q3. Source: Bank of Russia.

16

Chart 14

#### CREDIT AND DEPOSIT MARKET INDICATORS

Table 4

		June 2023	July 2023	August 2023	September 2023
Interest rates on banks' long-term ruble transaction	ons		1		
household deposits	% p.a.	7.3	7.5	8.4	9.5
household loans	% p.a.	12.5	12.3	12.1	12.3
corporate loans	% p.a.	9.5	9.4	11.2	-
Household funds*	% YoY, AFCR	12.8	12.9	13.8	17.1
in rubles*	% YoY	21.2	21.6	22.2	24.0
in foreign currency	% YoY	-38.6	-37.2	-36.4	-30.5
share of foreign currency*	%	10.0	10.1	10.2	10.1
Corporate loans**	% YoY, AFCR	21.0	21.2	20.6	20.8
short-term (up to 1 year)	% Yoy, AFCR	9.4	7.6	9.2	11.4
long-term (more than 1 year)	% Yoy, AFCR	26.3	27.2	25.9	25.4
Household loans**	% YoY, AFCR	17.8	18.8	21.3	23.0
housing mortgage loans	% Yoy, AFCR	23.5	23.4	26.9	29.1
unsecured consumer loans	% YoY	11.8	13.3	14.4	15.0
Banking system's claims on the economy	% YoY, AFCR	17.1	19.1	20.0	21.5
on businesses	% Yoy, AFCR	17.1	19.5	19.8	21.2
on households	% Yoy, AFCR	17.2	18.2	20.6	22.3
Money supply (M2)	% YoY	25.4	24.7	22.9	20.6
Broad money supply (M2X)	% YoY, AFCR	16.6	15.9	15.5	15.1

\* Excluding escrow accounts. \*\* Since 1 February 2021, the portfolios of corporate and retail loans include acquired claims. The portfolios' increases were calculated net of acquired claims.

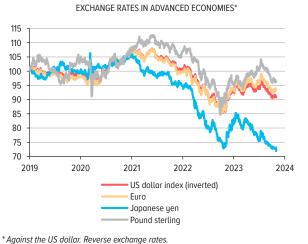
Note. YoY - on the corresponding period of the previous year, AFCR - adjusted for foreign currency revaluation. The Marshall-Edgeworth decomposition is used to make the adjustment for foreign currency revaluation.

Source: Bank of Russia calculations.

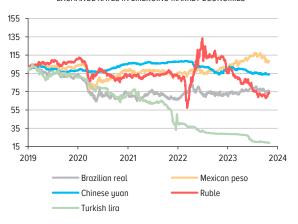
#### IN OCTOBER, THE US DOLLAR SLIGHTLY STRENGTHENED AGAINST MAJOR WORLD CURRENCIES (02.01.2019 = 100)

Chart 17





EXCHANGE RATES IN EMERGING MARKET ECONOMIES\*



Sources: Cbonds, Bank of Russia calculations.

#### THE DEBT SEGMENT OF THE FINANCIAL MARKET DEMONSTRATED NEGATIVE DYNAMICS

#### Table 5

	Measure	31.10.2023	1M	3M	6M	YTD	1Y
Russian f	inancial market ('+' – positive trends, '-' – negative	trends)					
	exchange rate	93.40	4.7	-2.0	-17.3	-33.6	-51.8
MOEX Ind	ex, bp	3,201	2.2	4.1	24.0	48.6	47.7
RTS Index, bp		1,080	7.2	2.1	5.9	11.3	-3.0
Government bond yields, %		12.56	44	193	255	295	306
Corporate bond yields, %		13.80	67	376	401	408	440
Regional	bond yields, %	12.78	17	298	342	376	375
RVI, p		26	-1	4	-2	-13	-21
	e rates (per US dollar, % change, '+' – appreciation, '	-' – depreciation)			1		
	US Dollar Index	106.66	0.5	4.7	4.6	3.0	-3.7
	Euro	1.06	0.0	-3.9	-3.9	-1.2	6.1
AEs*	Japanese yen	151.72	1.6	6.6	11.1	15.6	2.9
	Pound sterling	1.21	-0.5	-5.4	-2.6	0.5	4.6
	Ruble	93.40	4.7	-2.0	-17.3	-33.6	-51.8
	Brazilian real	5.04	-0.1	-6.6	0.1	4.7	4.8
	Mexican peso	18.06	-3.7	-7.9	-0.5	7.3	8.7
EMEs	Chinese yuan	7.32	-0.3	-2.4	-5.8	-6.1	-0.9
	Turkish lira	28.31	-3.3	-5.1	-45.4	-51.3	-51.9
	South African rand	18.65	1.5	-4.4	-1.0	-9.7	-2.9
10-year b	ond yield (% p.a., change in bp, '+' – growth, '-' – de						
	USA	4.88	29	91	144	100	86
	Germany	2.80	-3	32	55	24	71
AEs	Japan	0.94	18	33	53	53	70
	UK	4.51	7	20	84	84	104
	Russia	12.50	56	133	159	219	234
	Brazil	11.91	12	102	-47	-85	-6
	Mexico	10.60	26	146	151	125	50
EMEs	China	2.72	1	1	-8	-16	2
	Turkey	28.18	100	920	1,504	1,842	1,677
	South Africa	10.68	-14	46	48	49	-10
5Y CDS s	preads (bp, change in bp, '+' – increase, '-' – decrea						
	USA	47	4	27	-17	22	19
	Germany	21	-1	7	8	14	-5
AEs	Japan	30	8	13	7	12	-2
	UK	33	1	5	13	26	5
	Brazil	174	-3	17	-34	-66	-88
	Mexico	116	-5	20	5	-8	-36
EMEs	China	82	-1	28	7	6	-37
220	Turkey	384	6	23	-146	-106	-248
	South Africa	276	1	49	-5	30	-17
Stock ind	ices (points, % change, '+' – increase, '-' – decrease				Ŭ		
	S&P 500	4,194	-2.20	-8.6	1.8	9.2	7.6
	Stoxx 600	434	-3.68	-8.0	-5.9	2.1	5.6
AEs	Nikkei 225	30,859	-3.14	-7.0	5.8	18.2	13.9
	FTSE 100	7,322	-3.76	-4.9	-5.8	-1.7	3.9
	MSCIEM	915	-3.95	-12.6	-6.0	-4.3	8.2
	Bovespa	113,144	-3.95	-12.0	11.0	3.1	-1.2
	IPC Mexico	49,062	-2.94	-10.5	-11.1	1.2	-1.2
EMEs	SSE Composite	3,019	-3.56	-10.5	-11.1	-2.3	3.5
	BIST 100	7,514	-9.85	4.1	66.7	36.4	93.7
	FTSE/JSE	69,653	-3.77	-11.8	-10.2	-4.6	4.9

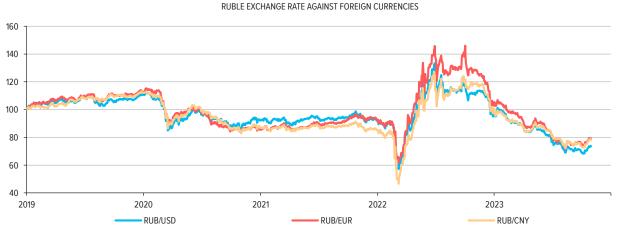
\* Advanced economies.

Sources: Moscow Exchange, Cbonds, Bank of Russia calculations.

#### THE RUBLE STRENGTHENED MODERATELY IN OCTOBER

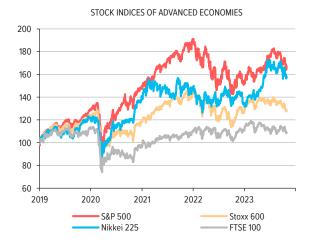
(02.01.2019 = 100)

19

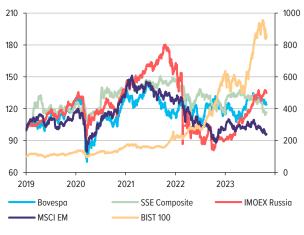


Sources: Cbonds, Bank of Russia calculations.

# STOCK INDICES WERE MOSTLY DECLINING (02.01.2019 = 100)



STOCK INDICES OF EMERGING MARKET ECONOMIES



Note. Stock indices are indicated in national currencies Sources: Cbonds, Bank of Russia calculations.

# IN SEPTEMBER, GROWTH RATES OF MONETARY AGGREGATES DECREASED DUE TO A REDUCED CONTRIBUTION OF GOVERNMENT SPENDING





ANNUAL GROWTH IN THE MAIN MONETARY AGGREGATES, %

Source: Bank of Russia calculations.

Chart 18

Chart 19

Data cut-off dates:

- 'Money market and overnight rates (RUONIA)' section 30 October 2023;
- 'Money and debt market yield curves' and 'Other financial market segments' sections 31 October 2023;
- 'Credit and deposit market' section 1 October 2023, high-frequency data 31 October 2023.

The electronic version of the information and analytical commentary is available on the Bank of Russia website. Please send your comments and suggestions to svc\_analysis@cbr.ru.

This commentary was prepared by the Monetary Policy Department.

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12 Neglinnaya Street, 107016, Moscow

Bank of Russia website: www.cbr.ru

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