# Bank of Russia

The Central Bank of the Russian Federation
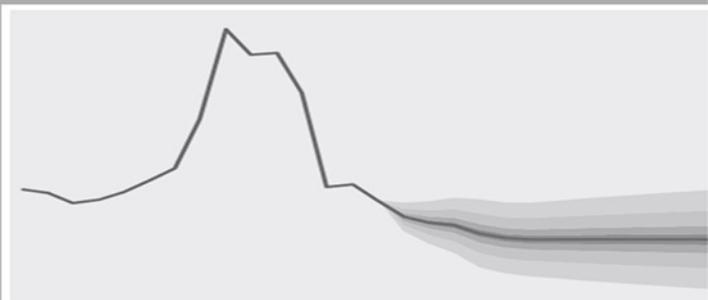
No. 1
MARCH 2017

MONETARY POLICY REPORT

Moscow

DEAR READERS,

In order to improve the effectiveness of the Bank of Russia's information policy with regard to its monetary policy and to assess the relevance of and demand for the materials published, we would be grateful if you could answer the following questions.

1. Do you consider there to be an optimal level of detail in the material presented?

2. Which subjects, in your opinion, should be illustrated in this report?

3. Do you have any other comments or suggestions regarding the report?

4. What is your professional field of interest?

Many thanks in advance for your assistance.

The report has been prepared based on statistics as of 23 March 2017.
Data cut-off date for forecast calculations is 23 March 2017.

An electronic version of the information and analytical review can be found on the Bank of Russia website at http://www.cbr.ru/publ/.

Please send your suggestions and comments to monetarypolicyreport@mail.cbr.ru.

CONTENTS

SUMMARY

New statistics and developments that took place since the publication of the December Monetary Policy Report (hereinafter, the Report) influenced the assessment of the current situation and the medium-term forecast, and were considered by the Bank of Russia in its key rate decisions in early 2017.

First, the actual decline in annual inflation overshoots the forecast. The annual inflation fell to 4.6% in February and to an estimated 4.3% during first 20 days in March. Consumer price growth gets rather close to the target. Inflation expectations remain on the downward track. The dynamics of inflation and inflation expectations became one of the main drivers behind the key rate cut made by the Bank of Russia in March 2017 – by 25 bp to 9.75% p.a. Apart from the restraining drag from internal demand, the reduction in inflation was shaped by the ruble appreciation and high food stocks due to the good harvests of 2015-2016. The Bank of Russia will maintain a moderately tight monetary policy in order to keep in check inflation risks caused by the inertia of inflation expectations, rather sharp fall in households' propensity to save, volatility in global commodity and financial markets, and to deliver inflation close to the 4% target.

Second, inflation slowdown does not hamper economic recovery. Revisions of GDP dynamics in 2015-2016 by Rosstat imply that the recession observed over that period was less serious and the revival in economic activity started earlier than what was presumed by the initial statistics. This leads to the conclusion that the Russian economy turned out to be more resilient to external shocks. According to Bank of Russia estimates based on new data, GDP recovery started as early as 2016 Q2 and will continue in 2017, whereas initial data assumed the recovery to occur only in 2016 H2. However, consumer demand measures have not been materially influenced by these data revisions. The demand remained broadly weak, which produced a restraining effect on inflation dynamics.

Growth in the production and import of investment goods, and also the evidence gathered by business surveys suggest the end of a long investment pause. 2017 Q1 is expected to see an increase in annualised investment measures. This trend will be in part supported by the gradual easing in monetary stance.

Businesses are building up their inventories in the anticipation of a growth in demand. Their expectations are due to come true this year. The signs of recovery are observed in consumer demand dynamics. Household consumption levels will grow gradually. Incentives for saving will generally remain in place amid positive real interest rates. Given the expansion in income and demand as a result of growth in production, no additional inflationary pressure will follow. Demand dynamics will remain the factor mitigating inflation.

Third, in January, the Finance Ministry announced its plans to conduct operations in the FX market under a transitional budget rule and launched these operations in February. The effect of these operations on the FX market and the exchange rate dynamics was initially hard to assess, given the uncertainty over their impact on the exchange rate and inflation expectations. To limit the possible short-term inflation risks the Bank of Russia tightened the narrative of its press release as it kept the key rate at 10%. The Finance Ministry-conducted operations failed to considerably affect the situation in the FX market in February and March, when the factors favouring ruble appreciation prevailed. As a result, these risks did not materialise.

Fourth, oil exporting countries have largely stuck to their agreements to cut oil production. That was hard to predict with certainty in December 2016, when they were signed. It boosted oil prices in early 2017 and will prop up their growth until the middle of the year when the parties are to reconsider the extension of the agreements. These agreements have a limited potential to push up oil prices, because shale oil production growth in the US is expected to speed up in response to rising oil prices. Given this factor and uncertainty over the extension of the agreements, the Bank of Russia remains conservative and predicts that oil prices will decline progressively to $40 per barrel by the end of 2017 and hold at about this level in the subsequent

years. Having said that, the average annual oil price in 2017 will be roughly $50, considerably higher than the $40 per barrel predicted in the previous forecast. Higher revenues from foreign economic activity alongside the above internal factors will contribute to Russia's economic recovery in 2017. The drop in oil prices expected in the second half of the year will not interrupt the recovery trend only slowing it down temporarily, given that the recovery has already taken a sustainable track and the economy proved to be highly resilient to external shocks.

The baseline scenario suggests that GDP will grow by 1-1.5% in 2017 and by 1-2% in 2018 and 2019. Further GDP growth by more than 1.5-2.0% a year calls for efficient structural policy of the government. The Bank of Russia still considers the scenarios which suggest further growth in oil prices or their sizeable downward adjustment. This Report features these scenarios. We need to analyse them primarily to estimate possible risks, which may arise if the developments projected in the baseline scenario change.

Baseline scenario suggests that inflation will hit the 4% target in 2017. Our monetary policy will be aimed at anchoring inflation near this level in the future. While assessing evolving inflation dynamics and economic developments against the forecast, the Bank of Russia admits the possibility of cutting the key rate gradually in coming Q2-Q3.

1. MACROECONOMIC CONDITIONS

External conditions

In December 2016 – March 2017, Russia's external conditions were shaped by the relatively favourable situation in the commodity markets, largely as a result of the agreement on oil output cuts reached between oil-producing countries and its subsequent implementation. Alongside the strengthening recovery of the global economy, this boosted optimism among global investors and reduced volatility and risk perception indices in the global financial markets. A slight increase in volatility was only fleeting in nature and was mostly due to the on-going uncertainty surrounding the economic policy of US President-elect Donald Trump and his ambiguous rhetoric regarding the prospect of lifting the sanctions on Russia (Charts 1.1, 1.2).

The implementation of the oil output restriction agreement of 10 December 2016 had a significant upward drag on energy prices in the first few months of 2017. As a result, in January-February the price of Urals crude was roughly $53 per barrel, significantly higher than the $40 per barrel level anticipated in the Bank of Russia's baseline scenario in the December Monetary Policy Report (hereinafter, the Report)[1]. Compliance with these arrangements is helping to restore balance to supply and demand in the global oil market; this is expected to occur as soon as Q1 this year, according to estimates by international energy agencies (Chart 1.3). Further oil price dynamics will be dependent on a number of factors. The resumption of drilling activity and increased production in the US will exert downward pressure on prices. In addition, there is still some uncertainty surrounding the extension of the production restriction agreement among oil-producing countries. Withdrawal from the agreement and resumption of production at previous volumes could cause an adjustment in

oil prices. Taking this into account, in the baseline scenario for economic development the Bank of Russia maintains a conservative approach and anticipates a downward trend in Urals crude prices in 2017. Prices are predicted to remain at current levels over the coming months and decline to roughly $40 per barrel by the end of 2017.

The growth in oil prices and improved investor sentiment contributed to a revival in international

Chart 1.1

Global stock indices
(January 2013 = 100%)



* See the Glossary.
Source: Bloomberg.

Chart 1.2

### Indices of volatility and global financial market risk perception by investors
(points)
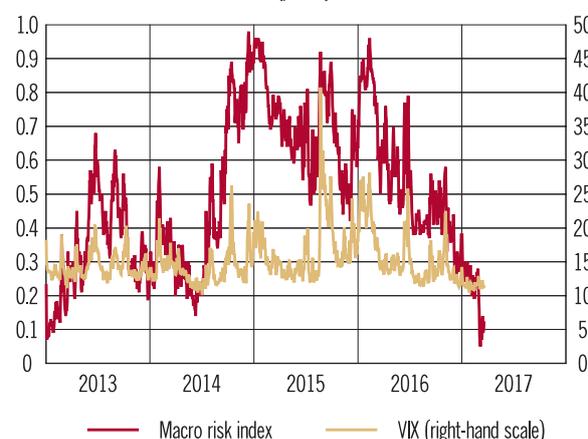
Source: Bloomberg.

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[1] In mid-December 2016, uncertainty remained high with regard to whether oil-exporting countries would abide by the agreements reached. Therefore, the Bank of Russia retained its assumption of oil prices at $40 per barrel.

Chart 1.3

Balance of global supply and demand for oil and other liquid fuel
(million barrels/day)

Global supply — Global demand
Change in inventories (right-hand scale)
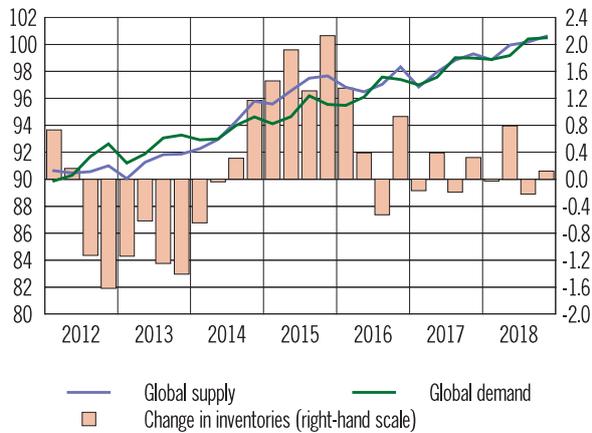
Source: US Department of Energy.

Chart 1.4

Change of risk premium in Russia and emerging markets*
(basis points)

—— Average CDS spread change in emerging markets
—— CDS spread change for Russia
◼ Difference between CDS changes for Russia and other countries

* Average CDS spread for emerging markets is based on the data for Brazil, China, Turkey, Mexico, and Malaysia.
Sources: Bloomberg, Bank of Russia calculations.

Chart 1.5

Portfolio investment inflow into BRICS countries
(millions of US dollars)

—— Russia   —— Brazil
—— China   —— India
—— South Africa

Source: EPFR Global.

investors' interest in EMEs and a renewed inflow of capital into these markets. However, the reduction in Russia's country risk premium was higher than in other EMEs, amid the improved situation in the Russian economy and the upward revision of Russia's international rating forecasts (Charts 1.4, 1.5)[2]. In these conditions, Russian banks have been relatively successful in coping with external debt repayments and companies have been largely able to refinance external debts.

These factors and the significant sales of FX earnings by exporters helped to buoy the ruble exchange rate which, in turn, contributed to inflation reduction. In February, the Russian Ministry of Finance began operations to purchase foreign currency in the domestic market with a view to replenishing its sovereign funds (see box 'Fiscal policy'), which had a somewhat restraining effect on the ruble appreciation during this period. The Russian Ministry of Finance's announcement about these operations initially provoked a short-term adjustment in the ruble exchange rate, due to the increase in exchange rate uncertainty. Subsequently, as data were published on the amount to be purchased and the Russian Ministry of Finance carried out the operations, this effect faded and the factors underlying the strengthening

of the ruble, as described above, once again came to dominate.

As with the global economy in general, buoyant trends were observed in the economic dynamics of Russia's trading partners at the end of 2016 – start of 2017. Taking this into account, the Bank of Russia slightly improved its estimates of their aggregate growth, expecting it to slightly exceed 2% in 2017. However, as before, considerable variation will still remain between advanced and emerging economies (Chart 1.6).

The gradual recovery in global demand and growth in energy prices in December 2016 and over the first few months of 2017 helped to buoy prices in other commodity markets too. Prices for Russia's main export commodities gradually recovered

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[2] *In the first half of February, a slight upward adjustment was observed in Russia's risk premium dynamics amid the announcement by US and European leaders that sanctions against Russia would remain in force. The duration of the adjustment was short, and the upward dynamics soon came to an end.*

Chart 1.6

GDP growth in key advanced and emerging economies
(percent change on corresponding period of previous year)

Advanced economies and Russia | BRICS

USA	China
Euro area	India
Germany	Brazil
Japan	South Africa
Russia	Russia

Sources: national statistics agencies, Bloomberg.

Chart 1.7

World prices of Russian principal export commodities
(1.01.2013 = 100%)

Urals crude	Natural gas (Germany)
Aluminium	Coal (Australia)
Nickel	Iron ore

Sources: World Bank, Reuters data (Urals crude price).

Chart 1.8

Inflation in key advanced and emerging economies
(percent change on corresponding period of previous year)

Advanced economies and Russia | BRICS

USA	China
Euro area	India
Germany	Brazil
Japan	South Africa
Russia	Россия

Sources: national statistics agencies, Bloomberg.

during this period. The only exception was coal, the price of which continued to adjust after a hike due to the sluggish production in China in autumn 2016 (Chart 1.7). Amid the increase in prices, the reduction in the current account surplus in 2016 Q4 slowed down at a much slower pace than previously (for more detail see Annex 'Dynamics of major items in the Russian balance of payments in 2016 Q4').

Like energy prices, fuel and fertiliser prices also rose. This in turn exerted an upward pressure on food prices (sugar, grain). However, these processes had almost no impact on domestic prices in Russia, in part due to the strengthening of the ruble at the end of 2016 – start of 2017.

At the same time, the increase in prices in the commodity markets alongside the slight recovery in business activity led to a noticeable acceleration in inflation in a number of Russia's trading partners, creating preconditions for the tightening of monetary policy by central banks (Chart 1.8). In the US, an additional contributing factor was the increase in inflation expectations due to the possible implementation of a fiscal easing programme and the on-going uncertainty surrounding its scale. Subject to that, in March the Fed raised the federal funds rate to 0.75-1% and intends to continue a gradual normalisation of its monetary policy in future.
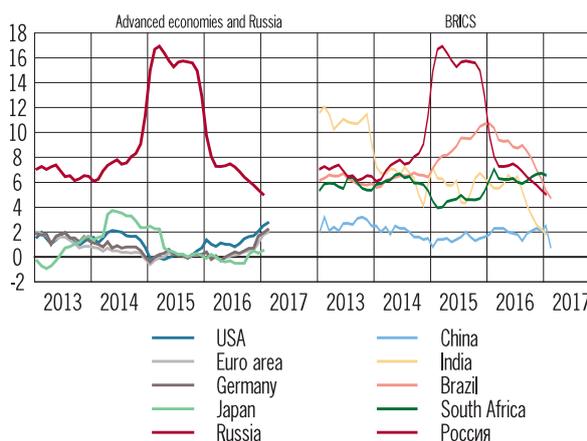
Internal financial conditions

In December 2016 – March 2017, internal financial conditions in the Russian economy were shaped by the Bank of Russia's moderately tight monetary policy, aimed at reducing inflation while preserving opportunities for economic growth and maintaining the stability of the financial system. The Bank of Russia's key rate decisions and signals of a possible change in the key rate in the short term fed through on the behaviour and expectations of financial market participants across all segments, which affected the shape of the yield curve.

The transition to a structural liquidity surplus did not have a material impact on the tightness of monetary conditions, as expected. This was caused, among other things, by Bank of Russia liquidity-absorbing operations, which made it possible to keep short-term money market rates close to the Bank of Russia key rate (Chart 1.9). The FX liquidity situation improved slightly due to the inflow of foreign currency into the current account amid growing prices in the commodity markets.

By the start of 2017, market interest rates had almost entirely stopped their decline, given the gradual pass-through effect of Bank of Russia key rate cuts in June and September. The consistency of the Bank of Russia's signals while maintaining the key rate at 10% p.a. from October 2016, including the slight tightening of the signal in February 2017 amid the start of the Ministry of Finance's operations in the domestic foreign exchange market, allowed for an upward adjustment in market expectations regarding rates. The change in expectations also somewhat limited the potential for a reduction in average rates in the banking sector.

Overall, banks continued to apply a conservative approach, selecting the least risky investment for their funds and maintaining fairly high requirements for the financial position of borrowers. Non-price bank lending conditions[3] eased rather slowly and mostly affected reliable borrowers (Charts 1.10, 1.11). Given that inflation reduction by far outstripped the decrease in nominal rates, real interest rates remained relatively high.

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[3] *Non-price bank lending conditions include the loan maturity, loan amount, requirements for the borrower's financial position, collateral requirements, and the range of lending types.*

Chart 1.9

**Bank of Russia key rate
and MIACR**
(% p.a.)

Overnight money market rate (MIACR)
Bank of Russia key rate
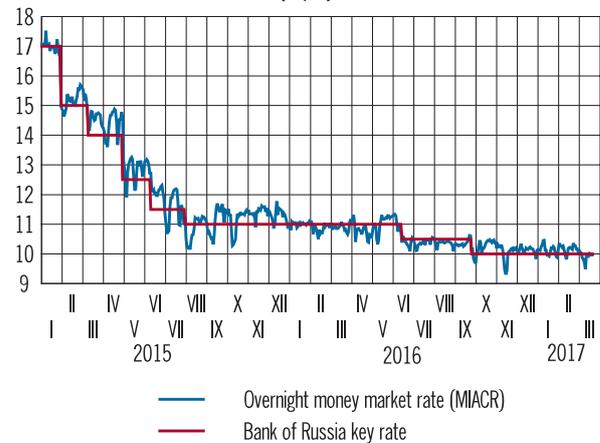
Source: Bank of Russia.

Chart 1.10

**Interest rates on bank ruble operations
and Bank of Russia key rate**
(% p.a.)

Short-term loans to non-financial organisations
Long-term loans to non-financial organisations
Short-term household deposits
Long-term household deposits
Bank of Russia key rate
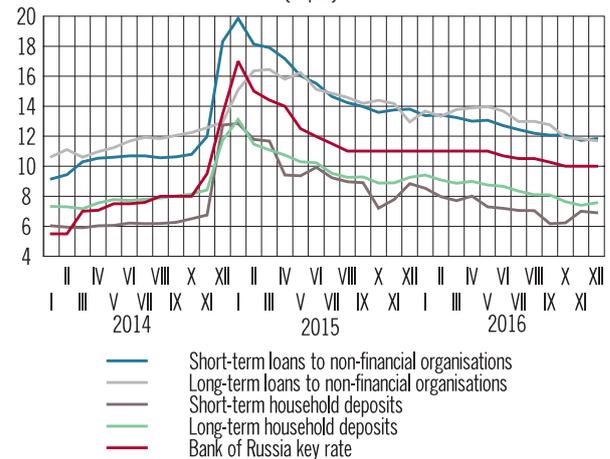
Source: Bank of Russia.

The persistently low risk appetite of financial market participants held back growth in lending activity[4] in the economy (Chart 1.12). As a result, at the end of 2016, lending volumes reduced and the effects of the slight revival in consumer lending observed in 2016 Q3 dissipated. At the start of this year, lending to the economy continued to shrink. At the same time, foreign exchange revaluation dragged materially on lending dynamics, together with a number of one-off factors (specifically, non-

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[4] *The estimates of the growth in lending to the economy provided here and throughout the text are an estimate of the growth in banking sector claims on non-financial organisations and households, which is slightly broader than banks' loan portfolios, as they also include bank purchases of bonds, promissory notes, shares, receivables linked to bank settlements, etc.*

Chart 1.11

Lending conditions and demand for loans indices
(percentage points)

Tightening of lending conditions, growth in demand for loans

Expectations

Easing of lending conditions, decrease in demand for loans

| I | II | III | IV | I | II | III | IV | I | II | III | IV | I | II | III | IV | I | II | III | IV | I | II |
2012   2013   2014   2015   2016   **2017**

— Bank lending conditions for households
— Household demand for loans

— Bank lending conditions for large corporations
— Large corporations' demand for loans
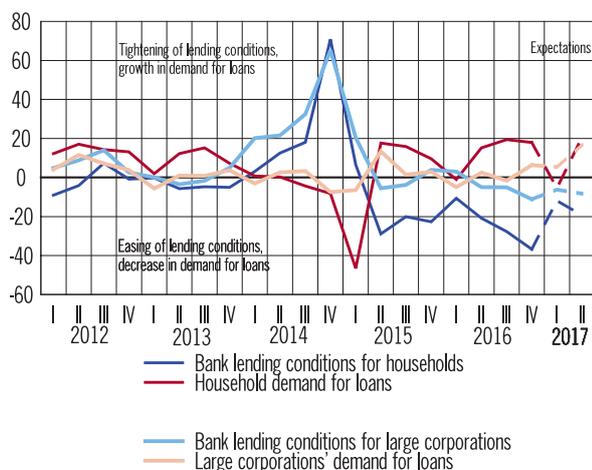
Source: Bank of Russia.

Chart 1.12

Contribution of various components to annual growth rate of banks' loan portfolio
(percentage points)

2011   2012   2013   2014   2015   2016   2017

■ Revaluation of foreign currency loans
■ Ruble loans to non-financial organisations
■ Foreign currency loans to non-financial organisations
■ Loans to households
— Total loan portfolio growth, %
— Growth of loans to non-financial organisations, %*
— Growth of loans to households, %*
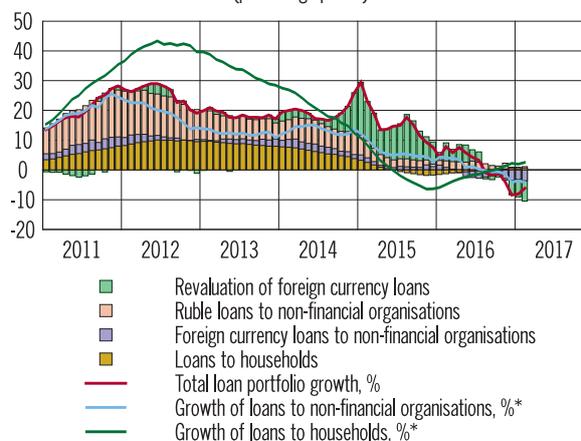
* Adjusted for foreign currency revaluation.
Source: Bank of Russia.

Consumer lending by banks

Banks still pursue a prudent policy in the consumer lending market and avoid any lending to unreliable borrowers. Banks keep easing their lending policies. However, this process concerns groups of reliable retail borrowers rather than mainstream borrowers, since lending to the former combines high yields and acceptable risk level. This category mostly includes borrowers with a good credit history, employees of organisations involved in payroll arrangements with the bank, and borrowers with a stable – albeit relatively small – income (pensioners, public sector employees). As competition is growing, banks are offering new products and expanding their services extensively resorting to niche instruments intended both to keep their own customers (benefit programmes for existing customers) and to attract reliable borrowers from other banks (consumer loan refinancing programmes, including those to increase the loan amount or reduce rates). However, creditors are still placing relatively strict requirements for the financial position of potential borrowers and, where necessary, for the loan collateral. Such measures lead to redistribution of customers between banks and a further shrinking of consumer loan portfolio. The most aggressive are major banks with relatively inexpensive and stable funding, which helps consolidate their position in the consumer lending market (Chart 1.13).

Given the strict borrower eligibility criteria, gradual reduction of funding costs allows banks to cut retail lending rates. Additional factors behind the reduction in consumer lending rates are banks' obligation to comply with regulations on the maximum total cost of credit (TCC), calculated on the basis of the price of loans in effect in the previous two quarters, and the increase in the risk ratio on loans with high TCC values. This competition for high-quality customers is forcing banks to be proactive and reduce their loan rates before their competitors. As a result, the TCC is gradually falling, and currently the average TCCs for certain loan categories have already reached relatively low levels. As the yield on loans goes down, customer reliability gains in importance for banks. Thereby, amid the growing competition, a maximum TCC serves as an additional built-in mechanism of lending policies which cuts out customers with high credit risk.

Banks' prudent lending policy in recent years improved the quality of unsecured consumer loan portfolios in 2016. Some of the top-30 banks have managed to overcome the negative situation with the downturn in retail borrowers' repayment practices due to the well-established borrower assessment technologies. In January-February 2017, the 'performing' part (without overdue payments) of the retail loan portfolio of this group of banks started to grow year-on-year after a two-year slump. Other banks also observed positive trends towards shrinking of 'bad' loans in their assets, which was accompanied with a settlement of overdue loans.

Annual growth in the total consumer loans is continuing to rise, but is still in negative territory. However, loans issued on non-standard terms, characterised by higher default risk, reduced rapidly, while the reduction in the portfolio of homogeneous loans stopped almost entirely[1].

Before the end of 2017, banks may gradually ease their requirements to borrowers as the economic situation improves. This will help increase demand for consumer loans. Any further growth in consumer lending will largely be linked to the recovery in economic activity and the increased solvency of potential borrowers, which will not pose any additional risks to the Bank of Russia's achievement of its inflation target in 2017.

Normalised structure of annual growth in the value of unsecured consumer loans
(percentage points)

- 30 top banks - performing loans
- 30 top banks - non-performing loans
- Other banks - performing loans
- Other banks - non-performing loans
- Total growth (right-hand scale)
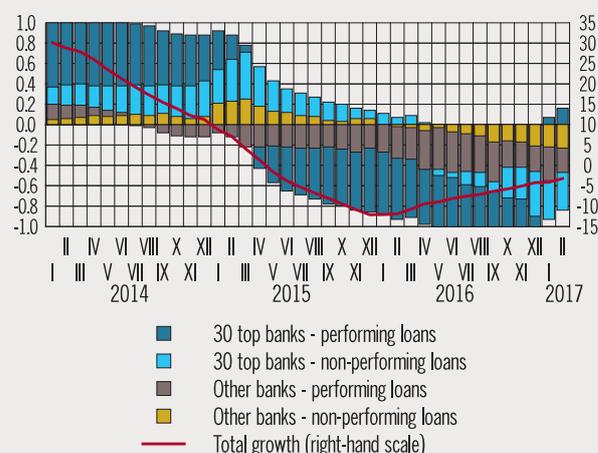
Source: Bank of Russia calculations based on reporting form 0409115 (sections 1, 3)

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[1] The portfolio of homogeneous loans groups together small loans which have comparable lending risk characteristics (as they are issued to borrowers on standard terms determined independently by banks). As of 1 February 2017, overdue consumer loans in portfolios of homogeneous loans stood at 21%, compared with 33% for consumer loans issued on non-standard terms. As of 1 February 2017, loans issued on individual terms reduced by 15.8% year-on-year, while the total portfolio of homogeneous loans shrank by only 2.4%.

market operations by certain credit institutions). These factors excluded, the annual growth in lending to the economy was in line with the Bank of Russia's December forecast (0-3%).

Further ahead, as the situation in the economy improves, the gradual easing in requirements for borrowers is expected to facilitate a recovery in demand for loans (for more detail see box 'Consumer lending by banks'). However, its pace will be shaped by the intensity of the recovery processes in the economy and will not pose any inflation risks.

Money supply dynamics were generally in line with Bank of Russia expectations. Against the backdrop of modest lending dynamics, a significant factor behind the changes in money supply continued to be net lending to the general government from the banking system. Its positive contribution to the annual growth in money supply will remain in 2017, according to Bank of Russia estimates, as a result of funding the budget deficit (see box 'Fiscal policy').

Fiscal policy

According to the Federal Treasury data, in 2016 the budget deficit increased by ₽322.6 billion compared with 2015 to ₽3,142.0 billion (3.7% of GDP). The federal budget deficit increased by ₽995.3 billion to ₽2,956.3 billion (3.5% of GDP). The budget deficit was funded primarily from the Reserve Fund (₽2,136.9 billion), positive net internal investments (₽524.4 billion) and the successful implementation of the privatisation programme (₽412.8 billion).

As a result of spending the Reserve Fund to cover the budget deficit and the exchange rate revaluation, the cash balance of sovereign funds reduced by 37.9% compared with the start of the previous year, to ₽5,511.3 billion as of 1 January 2017.

Amid the successful implementation of the internal borrowing programme and the expanded provision of public guarantees, government debt rose by 1.6%, primarily due to ruble-denominated components, and stood at ₽13,827.6 billion as of 1 January 2017. In early 2017, the federal government bonds (OFZ) portfolio continued to grow, increasing by ₽215.3 billion to ₽5,848.0 billion as of 1 March 2017.

In April 2017, the Russian Ministry of Finance will start to place OFZ issues for households with an average annual yield of 8.5% and up-to-three-year maturity, without circulation in the secondary market. The total annual securities offering will amount to ₽20-30 billion.

The federal budget and consolidated budget surpluses (₽35.5 billion and ₽295.9 billion respectively), which are typical at the beginning of the year, shrank significantly year-on-year in January 2017 due to a shift in the budget's social spending:

– in January, a one-time ₽5,000 pension benefit was paid which required the allocation of ₽221.7 billion from the budget;

– in February, pensions and social benefits were indexed by 5.4%, in line with inflation for 2016;

– in April, a second indexation of pension and social benefits by 0.4% is planned. As a result, the overall indexation of pensions and social benefits in 2017 will be a little over 5.8%[1].

From February 2017, the Russian Ministry of Finance started operations to purchase/sell foreign currency in the domestic foreign exchange market with a view to replenish/spend its sovereign funds. The mechanism proposed by the Russian Ministry of Finance is in essence a transitional version of the 'budget rules' which are due to be examined and enshrined in the Fiscal Code in 2017. This mechanism suggests that additional oil and gas revenues receivable in 2017 due to Urals crude prices surpassing $40 per barrel shall not be eligible for funding additional federal budget expenditure beyond that which is stipulated in Federal Law No. 415-FZ, dated 19 December 2016, 'On the Federal Budget for 2017 and the 2018 and 2019 Planning Period' (oil and gas revenues are expected to total ₽5,050 billion in 2017 assuming an annual average oil price of $40 per barrel and an exchange rate of ₽67.5 per US dollar). The additional oil and gas revenues will be allocated to the Reserve Fund, with the funds being converted in the domestic foreign exchange market. As a result, the amount of sovereign funds will be higher at the end of 2017 than stipulated in the Russian Ministry of Finance's budget forecasts at the end of last year.

In February, the amount of foreign currency purchased to replenish the Reserve Fund totalled ₽113.1 billion; the Russian Ministry of Finance is planning to acquire ₽70.5 billion in foreign currency in March, which is slightly below the previous month purchases. The slight overshoot in the initial estimate of additional oil and gas revenues is linked to the difference between the estimated and actual production volumes and energy exports in the reporting month, and other specifics of the calculation method used by the Russian Ministry of Finance (for details of this method, see the Russian Ministry of Finance press release[2]). In February, this discrepancy was roughly ₽21.5 billion.

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[1] *Excluding the one-time payment of ₽5,000, which does not affect the basis for future indexation.*
[2] *Russian Ministry of Finance Press Release, dated 25 January 2017, 'Operations in the Domestic Foreign Exchange Market'.*

Economic conditions

Rosstat's revision of data on a wide range of economic activity indicators[5] slightly changed the outlook for economic activity dynamics. According to the updated estimates, the situation in the Russian economy in 2016 has considerably overshot expectations. According to Rosstat data, the fall in GDP year-on-year was 0.2%, which is significantly higher than the forecast published in the previous Report (Chart 1.14). However, according to preliminary estimates by the Bank of Russia, the decline in GDP also stopped sooner than anticipated[6]. Estimates will be refined in late March – early April, when Rosstat publishes more detailed information based on the results of its review of the quarterly dynamics of economic activity indicators.

Taking into account this revision of the data, the assessment of the situation in industry also turned out to be slightly better than previously anticipated[7]: annual growth in industrial production (adjusted for calendar factor) has been in positive territory since March 2016, which points to a continuation of the recovery in industry[8], including when broken down by region (Chart 1.15). The February data on industrial production, which showed a marked year-on-year contraction (by 2.7%), do not take into account the calendar factor, namely the difference in the number of working days in February 2017 and 2016[9]. Excluding this factor, according to estimates, the actual annual growth in industrial production was 1-1.5% in February 2017. However, compared

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[5] Including the transition to presenting data on economic activity types in accordance with the updated Russian Classification of Economic Activities (OKVED2).

[6] In the December Report, the annual fall in GDP was estimated at 0.5-0.7%. Before, quarterly GDP growth (seasonally adjusted) was expected to move out of negative territory in Q3; now it is expected to do so in 2016 Q2.

[7] With effect from 2017, Rosstat transitioned to using revised classifications (OKVED2 and Russian Classification of Products by Economic Activities, OKPD2) in its statistical practices. The industrial production indices for 2015 and 2016 were recalculated.

[8] Previously, the recovery in production activity was assumed to be extremely unstable, with industrial production growth fluctuating around zero.

[9] First, in February 2016 there were 29 days (a leap-year). Second, according to the resolution on carrying over public holidays and weekends in 2017, the Sunday holiday falling on 1 January was carried over to Friday, 24 February. As a result, February 2017 had a total of two working days less than February 2016.

Chart 1.14

GDP growth structure by expenditure
(on previous year)

- Net exports
- Change in inventories
- Gross fixed capital formation
- Final consumption expenditure of general government
- Final consumption expenditure of households
- GDP growth rate (right-hand scale)
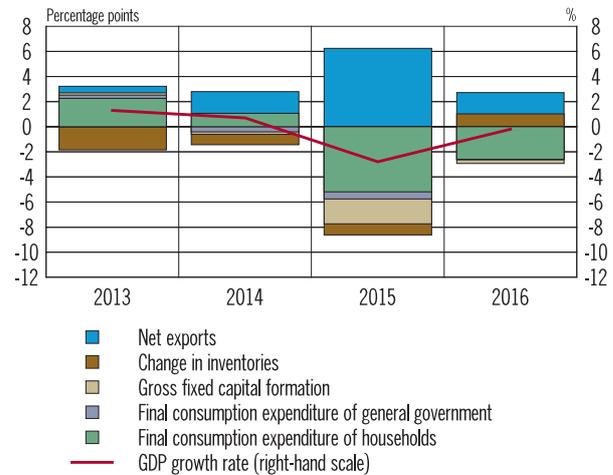
Sources: Rosstat, Bank of Russia calculations.

Chart 1.15

Contributions of industrial output components (adjusted for calendar factor)
(on corresponding period of previous year)

- Mining
- Manufacturing
- Electricity, gas and water production and distribution (before 2015)
- Electricity, gas and steam production, air conditioning (after 2015)
- Water supply and removal, waste collection and utilisation, pollution elimination (after 2015)
- Discrepancy
- Industrial output (right-hand scale)
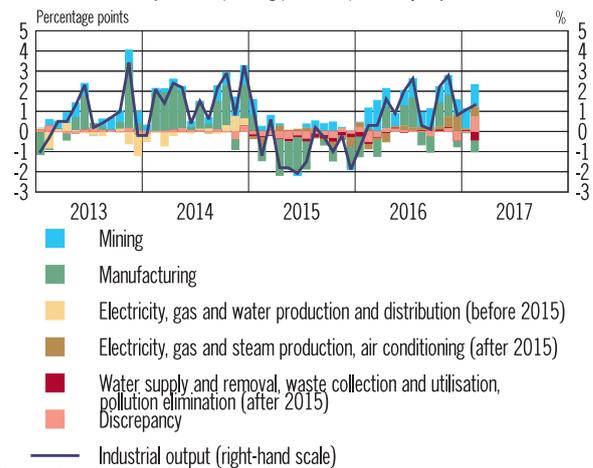
Sources: Rosstat, Bank of Russia calculations.

Chart 1.16

Investment, construction and investment goods production
(growth, percent change on corresponding period of previous year)

- Construction
- Investment goods production
- Fixed capital investment
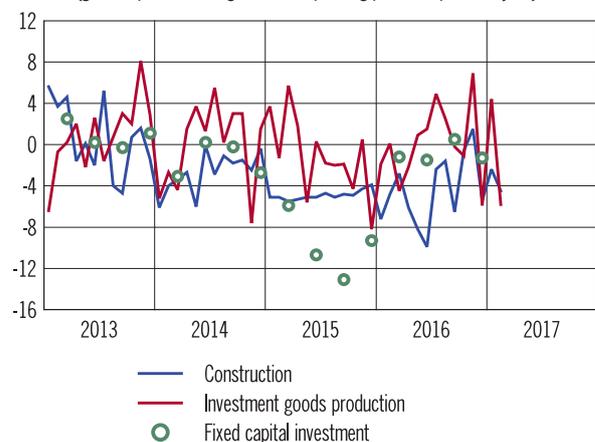
Sources: Rosstat, Bank of Russia calculations.

Financial position of real sector organisations in 2016

In 2016, the financial position of Russian organisations[1] improved. The preliminary data from Rosstat suggest that the profit and loss balance was 45.9% higher than in the previous year. The proportion of loss-making organisations reduced by 2.1 pp to 26.0%. The growth in profits and reduction in losses was aided by internal demand's continued switch to domestic products and increased external demand for certain goods, as well as moderate growth in costs as a result of restrained price growth in the commodity and infrastructure segments, and cost-cutting measures over most of the year.

The largest net profits were recorded in the manufacturing industry in 2016. The highest growth rates in the profit and loss balance were observed in the textile and sewing industries and machinery and equipment production, sectors where the growth in output was largely linked to import substitution.

Overall, the allocation of net profits by economic activity became more uniform (Chart 1.17): the share of profit and loss generated in transport and communications, real estate, leasing and services increased, while the share of the mining industry, which dominated in 2014-2015, decreased. The levelling of financial conditions across various sectors of the economy lays foundations for recovery growth and increased investment activity.

Chart 1.17

**Profit and loss balance
by activity**
(%)

- Mining
- Manufacturing
- Trade
- Transport and communications
- Operations with real estate, leasing
- Other
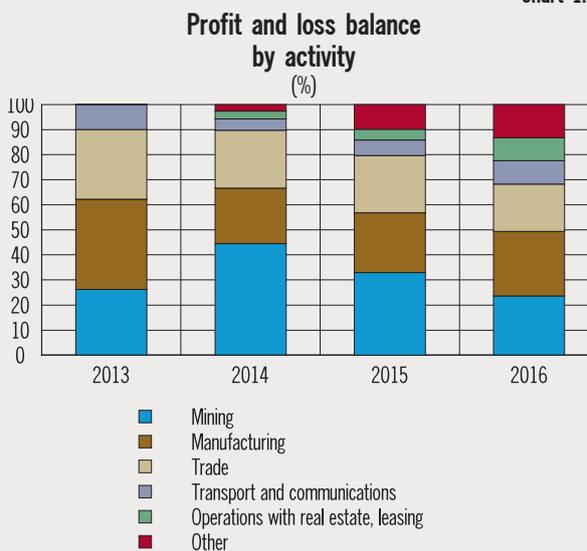
Sources: Rosstat, Bank of Russia calculations.

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[1] *Excluding small businesses, banks, insurance companies and budget-financed institutions.*

Inventory dynamics

Inventory dynamics are procyclical. In periods of slowing economic activity and falling GDP (in 2008-2009 and 2014-2015), inventories shrank. In 2016, inventory dynamics and structure showed positive changes as the recession slowed and recovery began.

The manufacturing and trade sectors account for most inventories (as of the end of September 2015 – 61.1%) and inventory dynamics in these industries largely shape changes in inventories in the economy as a whole[1] (Table 1.1). In periods of slumps in business activity, a fall in manufacturing output is accompanied by a reduction in inventories and spending on work in progress, which account for almost three quarters of current assets in the industry. At the same time, the trade sector sells off accumulated stocks of finished goods, the main component of inventories in this sector. Conversely, the expected recovery in demand triggers a revival in purchases of commodities and materials for production activity and an increase in trade stocks.

Manufacturing and trade sectors have seen a gradual increase in the proportion of production inventories and goods for resale, respectively, since early 2016 (Chart 1.18). This signalled an improvement in firms' expectations regarding the prospects for recovery in demand and production. The index of structural changes in inventories[2] gave a similar signal as it moved into positive territory for the first time since mid-2014 (Chart 1.19). This means that the cycle of reducing inventories has come to an end. At the end of 2016, the growth in inventories made a positive contribution to GDP dynamics for the first time since 2012.

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[1] *Agriculture accounts for only 5-6% of total inventories and has an immaterial impact on overall inventory dynamics.*

[2] *For the methodology of calculation of the index of structural changes in inventories, see Monetary Policy Report No. 2 (14), June 2016.*

Table 1.1

Inventories structure as of end-September 2016

(as % of total inventories in the economy)

	Inventories	Of which:				
		Production inventories	Unfinished product	Finished product	Goods for resale	Other inventories
Total	100.0	33.2	25.7	10.4	24.8	5.9
Agriculture	6.5	3.2	1.6	1.2	0.0	0.4
Mining	6.0	2.8	1.2	1.1	0.7	0.3
Manufacturing	36.0	16.1	10.4	6.1	1.8	1.7
Construction	7.9	3.6	2.3	0.6	0.5	0.9
Wholesale and retail trade	25.1	1.1	2.5	0.6	19.4	1.4
Other activities	18.5	6.4	7.8	0.9	2.4	1.1

Sources: Rosstat, Bank of Russia calculations.

Chart 1.18

Shares of key components of inventories

(percent change on corresponding period of previous year)
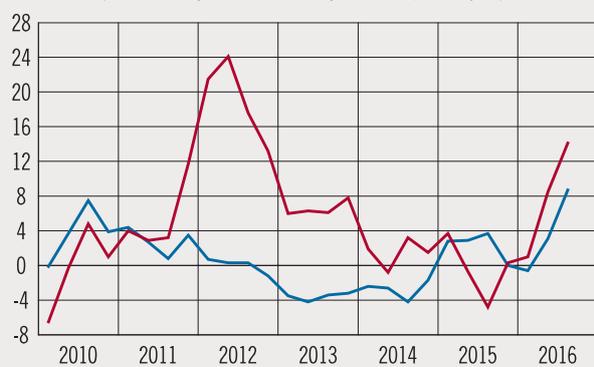
— Production inventories in manufacturing
— Goods for resale in trade

Sources: Rosstat, Bank of Russia calculations.

Chart 1.19

Index of structural changes in inventories and real output growth rate

(percent change on corresponding period of previous year)

— Real GDP growth rate
— Index of structural changes in inventories

Sources: Rosstat, Bank of Russia calculations.

Chart 1.20

Growth in retail trade turnover
(contribution to growth rate,
on corresponding period of previous year)
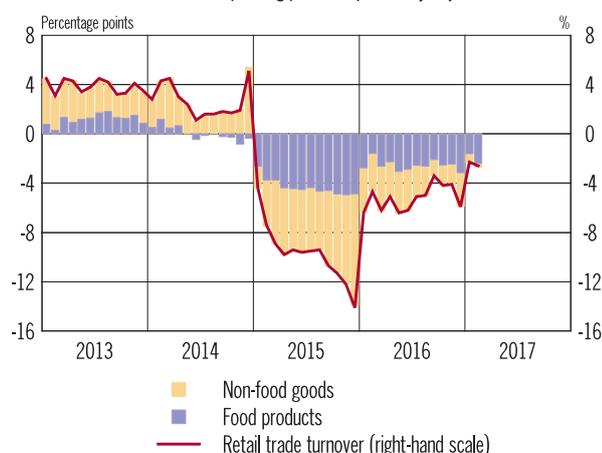
Sources: Rosstat, Bank of Russia calculations.

Chart 1.21

Real wages, disposable income and consumer spending of households
(seasonally adjusted, 2014 = 100%)
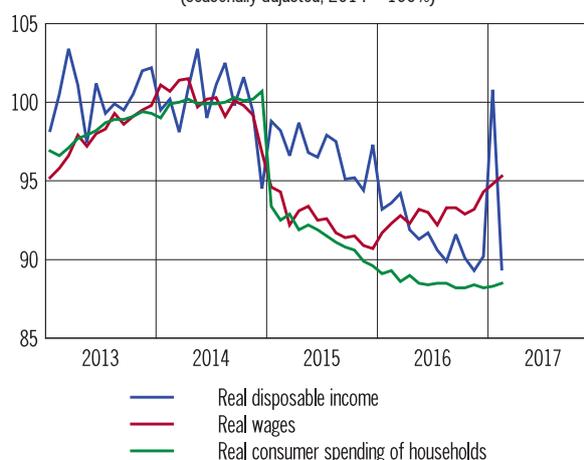
Sources: Rosstat, Bank of Russia calculations.

Table 1.2

Labour market

| Indicators	2014				2015				2016			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
Employment and unemployment (seasonally adjusted)												
Unemployment rate, %	5.0	5.2	5.2	5.2	5.3	5.7	5.6	5.7	5.4	5.8	5.6	5.4
Employed to unemployed ratio	18.6	18.6	18.3	18.1	17.8	16.7	16.9	16.4	17.3	16.5	16.9	17.5
PMI Composite Employment Index, points	48.2	47.4	48.2	46.6	44.8	46.0	47.4	45.9	46.5	48.6	49.3	49.6
Wages (as % year-on-year)												
Nominal wages	11.1	10.2	8.3	7.7	5.7	5.9	4.7	3.3	7.7	7.9	8.1	7.7
Real wages	4.4	2.4	0.6	-1.7	-9.0	-8.5	-9.5	-9.8	-0.6	0.5	1.2	1.8
Wage arrears	6.2	5.7	-11.9	-10.2	7.9	22.6	38.6	55.9	45.4	24.5	6.2	-5.6
Part-time employment												
Number of part-time employees, as % of previous period (seasonally adjusted)												
Total	-1.2	-0.1	2.2	0.1	1.1	2.6	-0.2	2.2	0.1	-1.0	-0.9	-2.7
Part-time employment	7.8	-4.2	-3.4	4.6	11.9	2.7	-3.5	3.8	9.8	1.1	-11.5	3.3
Part-time employment on employer's initiative	17.5	-3.8	-7.5	11.2	20.8	19.8	-2.6	-7.5	-3.0	17.6	-18.3	6.3
Part-time employment upon mutual agreement	5.5	-2.9	-1.7	2.0	9.5	1.4	-2.0	3.8	10.2	0.7	-9.0	3.6
Idle employees	-1.5	-2.1	12.4	-8.4	8.3	-4.6	-4.9	10.7	-12.3	-3.7	-7.5	-18.9
Unpaid leave	1.7	-1.1	1.6	0.1	-0.4	2.6	-1.1	1.7	0.1	-1.0	0.4	-1.8
Part-time employees, as % of headcount												
Total	9.0	9.5	10.4	10.3	9.4	10.4	11.0	11.0	10.0	10.7	11.4	10.5
Part-time employment	2.2	2.1	2.0	2.2	2.4	2.5	2.4	2.5	2.8	2.8	2.5	2.6
Part-time employment on employer's initiative	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
Part-time employment upon mutual agreement	1.9	1.8	1.8	1.9	2.0	2.1	2.0	2.1	2.4	2.4	2.2	2.3
Idle employees	0.7	0.6	0.6	0.8	0.8	0.7	0.5	0.9	0.7	0.6	0.5	0.5
Unpaid leave	6.1	6.8	7.8	7.3	6.2	7.2	8.1	7.6	6.5	7.3	8.4	7.4
Alternative indicators of part-time employment												
Average working hours per employee (year-on-year)	0.3	0.4	0.2	-0.1	-0.3	-0.4	-0.5	-0.1	-0.3	0.1	-0.3	
Labour force utilisation in industrial production (normal level = 100)	87.7	86.7	89.0	85.7	81.7	86.7	87.7	88.0	83.7	88.3	88.0	89.3

Change compared with previous 12 months:

- – situation improved (more than 1 standard deviation)
- – situation improved (less than 1 standard deviation)
- – situation remains unchanged (± 0.15 standard deviations)
- – situation deteriorated (less than 1 standard deviation)
- – situation deteriorated (more than 1 standard deviation)

Sources: Rosstat, Bank of Russia calculations, Russian Economic Barometer, Markit Economics.

with the previous month, according to estimates, the growth in output was negligible and varied by product group (for example, the production of commodities and materials increased, while the output of consumer goods demonstrated a slight decline).

After a relatively long period of decline, investment activity also showed signs of recovery. At the end of 2016 – start of 2017, the dynamics of indirect indicators of investment activity (imports and production of capital goods) exhibited predominantly upward trends (Chart 1.16). According to data from the market survey laboratory of the Gaidar Institute for Economic Policy, companies demonstrated an expansion in their investment intentions. Together with the improvement in the financial position of businesses, largely in the manufacturing industry, this buoyed investment demand (for more detail see box 'Financial position of real sector organisations in 2016'). Taking these factors into account, in 2017 Q1, according to Bank of Russia estimates, fixed capital investment will rise by 1-3% year-on-year after a long period of decline.

The improvement in firms' expectations regarding the prospects for a recovery in demand for their products fed through to inventory dynamics. From the start of 2016, a gradual rise in the proportion of production inventories has been observed in the manufacturing industry, together with goods for resale in trade sectors (see box 'Inventory dynamics'). As a result, the change in inventories made a significant positive contribution to GDP dynamics in 2016, which, according to estimates, will remain unchanged over the course of 2017.

The intensification of these recovery trends and the slight improvement in economic agents' sentiment, alongside the stable low levels of unemployment, will create the necessary preconditions for a recovery in consumer demand.

However, real household income dynamics remained mixed. On the one hand, disposable income generally shrank. The surge in disposable income observed in January was largely conditioned by a one-off factor: the federal budget's one-time supplementary pension benefit of ₽5,000 per person (totalling ₽221.7 billion). On the other hand, at the end of 2016 – start of 2017, the

growth in seasonally adjusted real wages resumed month-on-month (Chart 1.21, Table 1.2). The main factor behind this was the stable, large-scale and noticeable drop in inflation, while growth in nominal wage generally remained at the same level as in previous months.

According to estimates (seasonally adjusted), in February 2017 retail trade turnover grew compared with the previous month and the year-on-year reduction in retail trade turnover slowed considerably to 2.3% in January after averaging 5% in November-December 2016 (Chart 1.20). According to Bank of Russia estimates, in 2017 Q1 the annual reduction in household final consumption expenditures was roughly 1-2%.

Continued growth in real wages will buoy consumer demand in future; however, the gradual recovery in consumer demand will not outstrip production. The persistent savings incentives, as evidenced by the rather high household demand for deposits and muted lending activity dynamics in the economy, will have a constraining effect on consumer activity. In addition, the start of the OFZ issues for households planned for April by the Ministry of Finance could also provide some support for savings activity.

The contribution of net exports to annual GDP growth in 2017 Q1 will be close to zero, according to Bank of Russia estimates, after being in positive territory in 2016. This is due to the noticeable surge in import quantities amid the ruble appreciation and gradual recovery of the economy. A significant proportion of imports (more than 40%) is presented by capital goods, which provides a basis for the modernisation of production in future. The growth in exports in real terms is also estimated to be positive amid the positive external demand dynamics. But the growth in exports in Q1 and thereafter will not offset the rapid recovery in the imports of goods and services.

Taking these trends into account, according to Bank of Russia estimates, in 2017 Q1 GDP growth will continue in the Russian economy at an annual pace of roughly 0.4–0.7%. Both the positive investment and inventories dynamics, and the sluggish decline in year-on-year consumer demand will contribute to GDP growth.

Inflation

In February, annual inflation stood at 4.6%, with price growth slowing for all major groups of goods and services (Charts 1.22, 1.23). The fall in inflation at the start of 2017 was more rapid than forecast by the Bank of Russia. Monthly seasonally adjusted price growth[10] rates steadily decreased in December 2016 – February 2017. The homogeneity of disinflationary processes across regions intensified.

Inflation fell in December 2016 and the first few months of 2017 due to a number of factors.

First, although the preconditions emerged for a revival in consumer activity in the Russian economy, demand remained weak, which had a constraining effect on inflation. Taking into account the gradual nature of any revival in consumer activity, this trend will persist in future.

Second, the growth in consumer prices at the end of 2016 – start of 2017 was restricted by the ruble appreciation which had begun in autumn 2016 due to the situation in the oil market being more favourable than expected. The evolved strengthening of the ruble will continue to contribute to inflation slowdown over the coming months. According to estimates, in December 2016, the contribution of exchange rate dynamics to annual inflation was close to zero[11], and at the start of 2017 it shifted into negative territory, which facilitated a drop in inflation.

Chart 1.22

Contribution to inflation
(on corresponding period of previous year, percentage points)

- Non-food goods
- Services
- Food products
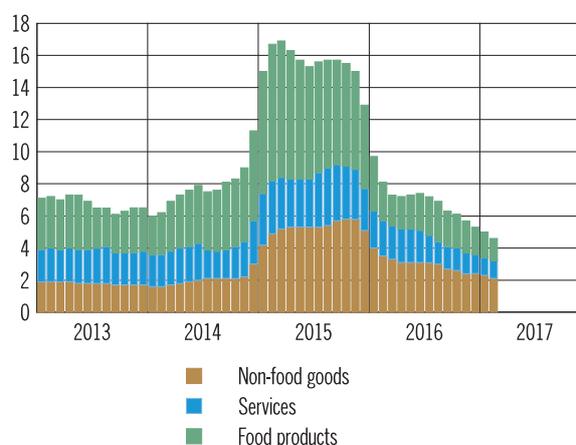
*Sources: Rosstat, Bank of Russia calculations.*

Third, a favourable factor from the perspective of limiting price growth was the high level of supply of food goods after the good harvests in 2015–2016.

According to Bank of Russia estimates, the reduction in inflation expectations also made a noticeable contribution to the slowdown in inflation in 2016 (see box 'Contribution of inflation expectations to inflation slowdown'). The potential instability of the fall in inflation expectations will continue to be a risk factor for inflation in future (Table 1.3). The unfavourable price dynamics for certain fast-moving consumer goods (sugar, vegetable oil, dairy products) may weigh negatively on inflation expectations due to the deterioration in the situation in certain food markets and the volatility of prices in the global commodity markets, which can affect

[10] To smooth over seasonal fluctuations in inflation, the Bank of Russia uses the X13 ARIMA-SEATS method (Statistical Research Division, U. S. Census Bureau (2015), X-13 ARIMA-SEATS Reference Manual) combined with an indirect approach that removes the seasonality in CPI sub-indices before aggregating them. The advantage of this approach is that it gives a more transparent economic interpretation of the seasonal characteristics of a particular group of goods or services. A weighted aggregation process ensures some coherence in the behaviour of CPI and its component parts. In addition to formal criteria and tests accompanying the seasonal adjustment procedure, the economic causes of one-time shocks and non-seasonal shifts are analysed, together with how seasonal fluctuations fit with the nature of price formation for specific groups of goods and services.

[11] Given the lag in the exchange rate pass-through effect, this contribution constitutes the overall impact on price dynamics from the ruble's episode of depreciation, which began at the end of 2015, and the ruble's rally, which dominated in 2016. Overall, the pro-inflationary effect of exchange rate dynamics in 2015 gave way to a neutral effect in 2016, which played an important role in the slowdown in price growth.

Chart 1.23

Prices of consumer goods and services
(percent change on corresponding period of previous year)

- Inflation
- Core inflation
- Food products
- Non-food goods (excluding petrol)

Sources: Rosstat, Bank of Russia calculations.

Table 1.3

Inflation expectations of economic agents

Survey	Expectation horizon	2015 I	2015 II	2015 III	2015 IV	2016 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2017 Jan	Feb	Mar
Inflation expectations (absolute), %																				
Households																				
Public Opinion Foundation	next 12 months	15.7	15.0	16.0	16.4	16.7	15.7	14.7	14.6	13.6	14.2	14.3	12.6	14.2	12.3	13.7	12.4	11.5	12.9	11.2
Public Opinion Foundation (Bank of Russia calculations)	next 12 months	13.8	12.2	14.5	12.8	10.8	7.8	7.4	7.2	6.5	6.7	6.9	6.4	5.9	5.8	5.6	5.1	4.6	4.6	4.1
Professional analysts																				
Bloomberg	2017									6.0	4.7	5.4	5.4	5.2	5.0	4.5	4.5	4.4	4.3	
Interfax	2017					6	5.6	5.7	5.7	5.7	5.5	5.5	5.1	4.9	4.8	4.8	4.7	4.7	4.4	
Thomson Reuters	2017											4.8	5.1	5.1	4.8	4.5	4.6	4.1	4.3	
Financial markets																				
OFZ-IN	next 7 years					6.2	6.1	5.4	5.2	5.0	4.6	4.6	4.4	4.5	4.5	4.8	4.6	4.6	4.5	4.6
OFZ-IN (without option adjustment)	next 7 years			8.1	7.3	7.7	7.6	6.9	6.7	6.5	6.0	5.8	5.5	5.3	5.5	5.8	5.4	5.0	4.9	5.0
Bond market	next quarter	10.6	15.0	14.1	14.2	—	—	12.3	—	—	7.1	—	—	7.5	—	—	6.8			
Interbank market	next quarter	14.8	17.1	15.0	13.6	—	—	10.0	—	—	6.2	—	—	6.2	—	—	6.0			
Inflation expectations (balance of replies*)																				
Households																				
Public Opinion Foundation	next 12 months	76	72	80	83	85	82	84	83	81	78	82	77	82	78	79	80	80	83	79
Public Opinion Foundation	next month	68	60	71	78	80	76	72	74	70	68	72	69	70	70	74	76	72	72	68
Enterprises																				
Russian Economic Barometer	next 3 months	32	20	28	48	46	22	14	16	30	38	28	26	36	34	32	46			
Bank of Russia (Banking Supervision Department)	next 3 months	14.8	12.7	12.1	17.3	15.6	13.6	12.4	11.5	11.5	12.1	10.1	9.9	10.4	10.1	11.5				
Retail prices (Rosstat)	next quarter	31	28	30	29	—	—	32	—	—	29	—	—	28	—	—	27			
Tariffs (Rosstat)	next quarter	7	6	2	2	—	—	5	—	—	5	—	—	0	—	—	0			

Change compared with previous 3 months:

- – inflation expectations improved (more than 1 standard deviation)
- – inflation expectations improved (less than 1 standard deviation)
- – inflation expectations remain unchanged (± 0.2 standard deviations)
- – inflation expectations deteriorated (less than 1 standard deviation)
- – inflation expectations deteriorated (more than 1 standard deviation)

* Balance of replies is a difference in the share of replies of the respondents, who expect that prices will increase and that prices will decrease.

Sources: Public Opinion Foundation/inFOM survey results, Rosstat, Interfax, Bloomberg, Thomson Reuters, Bank of Russia calculations, Russian Economic Barometer.

the ruble exchange rate. The impact of exchange rate dynamics on inflation is asymmetric. According to estimates, the possible negative effect of the ruble depreciation exceeds the contribution of the stronger ruble, in part due to reactions in exchange rate and inflation expectations, which lead to powerful secondary effects (see box 'The exchange rate's impact on inflation').

The Bank of Russia also views the increase in producer prices as an inflation risk amid the growth in commodity prices in global markets, which will translate to some degree into growth in consumer prices.

The increase in excise duties on diesel fuel, cigarettes, motor vehicles and alcohol, which were introduced on 1 January 2017, will also contribute to inflation this year. The increase in excise duties on petrol last year may also have some effect. The overall contribution of these factors is estimated to be small – roughly 0.3 pp (see box 'Impact of changes in excise rates on inflation in 2017').

These factors alongside the risks of monetary and non-monetary character were taken into account by the Bank of Russia in its key rate decision in March 2017. The Bank of Russia has not only set itself a target of achieving 4% by the end of 2017, but also seeks to securely anchor the pace of price growth at the target level (see Annex 'Non-monetary inflation factors').

Taking into consideration the fact that inflation is slowing down steadily and faster than forecast by the Bank of Russia, and also a reduction in inflation expectations and a revival in economic activity, on 24 March 2017 the Bank of Russia Board of Directors decided to reduce the key rate to 9.75% p.a. As part of its key rate decision-making, over the coming months the Bank of Russia will evaluate the future dynamics of inflation and the economy with respect to forecasts and will consider the possibility of a gradual reduction in the key rate in 2017 Q2-Q3.

Contribution of inflation expectations to inflation slowdown

When implementing an inflation targeting policy, central banks pay special attention to analysing inflation expectations. If expectations of economic agents' are far from the target, an inflationary shock could lead to an inflation spiral: economic agents start to expect stronger price growth and step up their demand for goods and services. In its turn, it triggers price growth, which again increases inflation expectations.

We used the New Keynesian Phillips curve (Galí, Getler, 1999)[1] to estimate the impact of inflation expectations on current inflation:

$$\pi_t = 0{,}35\pi_{t,t+1}^{exp} + 0{,}62\pi_{t-1} + 0{,}03x_t + 0{,}03neer_{t-1},$$

where π_t is inflation relative to the previous month (seasonally adjusted);

$\pi_{t,t+1}^{exp}$ is inflation expected one month ahead;

x_t is an indicator of demand based on monthly retail turnover;

$neer_{t-1}$ is growth in the ruble's nominal effective exchange rate in the previous month.

We used data from the monthly report 'Measuring Inflation Expectations and Consumer Confidence Based on Household Surveys', provided by inFOM at the Bank of Russia's request, to quantify inflation expectations. We calculated monthly inflation expectations (seasonally adjusted) based on the distribution of respondents' answers to the question about the expected price growth in the next period and perceived price growth in the previous month using a regression approach[2] (Pesaran, 1984)[3], with the assumption that household estimates of observed inflation are unbiased.

Along with inflation expectations, we supplemented the equation with the nominal growth in the ruble's effective exchange rate in the previous month to account for the exchange rate's direct effect on inflation. The demand indicator takes into account the short-term increase in consumption which translates into price growth. Inflation expectations in the Russian economy are remarkably adaptive. Given the impact of actual inflation on inflation expectations, the equation adopts a two stage least square method[4].

The results indicate that inflation expectations influence actual inflation dynamics[5] (Chart 1.24). The fall in inflation expectations made a significant contribution to the slowdown in actual inflation in August-December 2016.

Chart 1.24

Contribution of inflation expectations to inflation
(on previous month, seasonally adjusted)
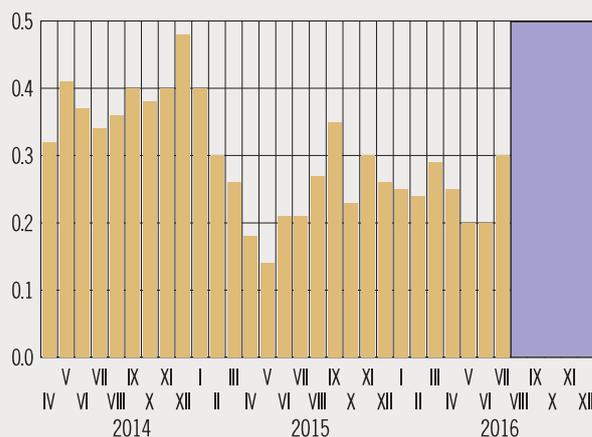
Sources: Rosstat, Public Opinion Foundation, Bank of Russia calculations.

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[1] Galí, J., Gertler, M., (1999). Inflation dynamics: a structural econometric approach. Journal of Monetary Economics 44 (2), 195–222.

[2] This approach is based on the estimate of correlation between current inflation and respondents' answers regarding observed inflation for the same period. We assume that this relationship still holds for the correlation between respondents' answers regarding future inflation and inflation expectations. Lyziak, T., (2010). Measurement of Perceived and Expected Inflation on the Basis of Consumer Survey Data, IFC Working Papers, No. 5.

[3] Pesaran, M., (1984). Expectations formation and macroeconomic modelling. In P. Magrange, & M. P., Contemporary Macroeconomic Modelling (pp. 27–53). Blackwell: Oxford.

[4] Inflation lag, growth in the nominal effective exchange rate, the RUONIA rate, the demand indicator, and changes in oil prices were used as instruments.

[5] The findings remain consistent when calculating the regression for different subsamples and when using CPI sub-indices as the explained variable and incorporating into the model the equations for aggregate demand and monetary policy's response to deviation from the inflation target.

The exchange rate's impact on inflation

In January-February 2017, inflation slowed down faster than forecast amid a more pronounced recovery in economic activity. It points to a slight weakening in pro-inflationary risks. These risks still persist, and the implementation of monetary policy requires that they be continually monitored.

Pro-inflationary risks are associated in particular with the asymmetry of exchange rate pass-through: the ruble's depreciation has a greater impact on the acceleration of price growth than a strengthening ruble has on its slowdown. This nature of pass-through is primarily associated with nominal rigidities in the economy (such as limited capabilities to cut wages, as well as social and other state obligations). In addition, depreciation is accompanied by a sharp downturn in exchange rate and inflation expectations, especially if they are not bound to the inflation target. They lead to significant secondary effects that intensify price growth (including panic buying, flight from the ruble, shortages of certain goods due to the increasing cost of commodity and material imports or higher efficiency of export operations). Conversely, when the ruble rallies, the opposite secondary effects are either inexistent or weak.

Vector autoregression estimates of inflation components corroborate the asymmetry of exchange rate pass-through. The period between late 2014 and early 2015 saw a sharp increase in the scale of the weakened ruble's pass-through to inflation, followed by a reduction to close to the levels of the previous three years (the cumulative response over five months was estimated at 0.1), with the reduction in the exchange rate having a significant impact on price dynamics of food and non-food goods and services (Charts 1.25, 1.26). The pass-through to inflation from a stronger ruble was less pronounced; after a period of turbulence[1] has come to an end, food products remain the only group to experience significant influence. This special effect of exchange rate dynamics can have a marked impact on inflation when the ruble depreciates, which may occur when external conditions deteriorate. To minimise this effect, particular importance may be attributed to information policy measures designed to foster economic agents' trust in monetary policy and establish stable downward trends in inflation expectations to bring them in line with inflation targets. In future, as inflation settles close to the target level and inflation expectations fall, the level of asymmetry in exchange rate pass-through should reduce.

Chart 1.25

Inflation response to decrease in the ruble's exchange rate (by 1%)

Source: Bank of Russia calculations.
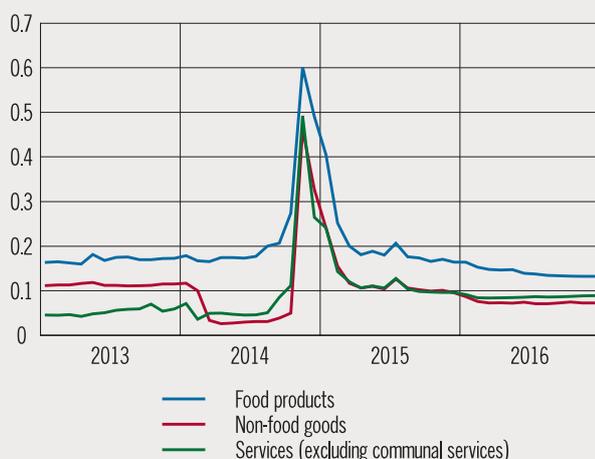
- Food products
- Non-food goods
- Services (excluding communal services)

Chart 1.26

Inflation response to increase in the ruble's exchange rate (by 1%)

Source: Bank of Russia calculations.
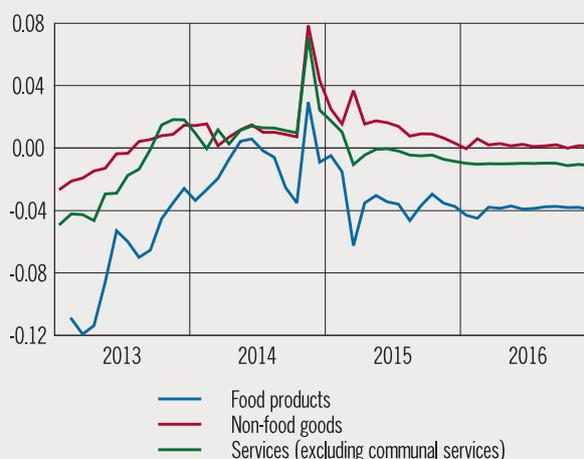
- Food products
- Non-food goods
- Services (excluding communal services)

[1] The response to the ruble strengthening during the period of exchange rate turbulence at the end of 2014 – start of 2015 was negligible.

Impact of changes in excise rates on inflation in 2017

The Tax Code of the Russian Federation provides for annual indexation of excise rates on certain goods in the consumer basket used to calculate the consumer price index. As of 1 January 2017, excise duties were increased for diesel fuel, cigarettes, motor vehicles and alcohol (Table 1.4).

Excise duties on diesel fuel and cigarettes showed the most sizable increase. If the increased excises are fully passed on to retail prices for these goods, all things being equal, this will lead to a 3.5% increase in diesel prices and a 10.4% increase in cigarette prices. Given the low weight of diesel fuel in the consumer price index, the contribution of diesel price increase to annual inflation will be negligible (less than 0.01 pp), while the increase in cigarette prices will contribute 0.12 pp to inflation. The increase in excise duties on alcohol and motor vehicles will have an insignificant impact on inflation.

Excises on motor fuel were left unchanged in 2017. At the same time, the increase in fuel prices in 2016 (+3.8%) failed to cover the increase in excise duties a year earlier. As a result, the effect of last year indexation of fuel excises may be partially carried over to 2017. If this scenario materialises, fuel prices could rise by 4.0% this year, which will contribute 0.13 pp to annual inflation. In addition, growth in domestic oil prices as a result of a tax manoeuvre in the oil industry could have an impact on the increasing fuel costs in 2017: rising taxes on mining increase the cost of oil production, while falling export duties increase the revenue and volume of exports.

The joint contribution of the increased excise duties to annual inflation could reach roughly 0.28 pp (Table 1.5).

Table 1.4

Change in excise duties in 2017
(%)

Excisable goods	Excise duty growth rate in 2017	Excise duty proportion in consumer price in 2016
Diesel fuel	28.5	12.3
Cigarettes	24.6	42.5
Motor vehicles	4.5	4.3
Alcohol	1.5	23.5

Sources: Rosstat, Tax Code, Bank of Russia calculations.

Table 1.5

Change in the prices of excisable goods and their impact on inflation

Excisable goods	Consumer price growth rate in 2017, %	Contribution to annual inflation in 2017, pp
Petrol*	4.00	0.13
Diesel fuel	3.50	0.01
Cigarettes	10.40	0.12
Motor vehicles	0.19	0.01
Alcohol	0.36	0.02
Total contribution to inflation		0.28

* Given the partial roll-over of the effect of last year excise duty growth onto 2017.

Sources: Rosstat, Tax Code, Bank of Russia calculations.

2. ECONOMIC OUTLOOK AND KEY RATE DECISION

Since the publication of the December Report, three key events have occurred which have impacted the Bank of Russia's outlook on Russian economic development in the medium term. First, Rosstat revised underlying data for a wide range of economic activity indicators. As a result, assessments of the economic situation in 2016 turned out to be significantly better than expected. The recovery phase of economic growth started earlier than anticipated, according to the revised data, which has led to improved assessments of the prospects of change in Russia's economic situation. Second, the Russian Ministry of Finance started to carry out operations in the domestic foreign exchange market to replenish its sovereign funds. Third, oil-producing countries' implementation of the production restriction agreement has led to a major revision of assumptions regarding average oil prices for 2017.

Taking these factors into account when updating the forecast has led to the revised estimates of major macroeconomic indicators for 2017. However, the medium-term economic development outlook remains unchanged. As before, given the on-going uncertainty surrounding the situation in the global financial and commodity markets, the Bank of Russia has considered both a scenario in which oil prices rise and a scenario in which they fall sharply (a risk scenario), in addition to the baseline scenario.

Baseline scenario

In the baseline scenario for economic development, the Bank of Russia generally adopts a conservative outlook on oil price dynamics over the forecast horizon. However, the significant increase in oil prices in the first few months of 2017 caused a major review of assumptions regarding intra-year and annual average oil price dynamics. The implementation of the production restriction agreement has led to rising oil prices. The actual price of oil in January-February averaged $53.4

per barrel, which was significantly higher than the price anticipated in the baseline scenario outlined in the December Report ($40 per barrel)[1]. The Bank of Russia assumes that the implementation of the agreement will continue to buoy oil prices in the first half of 2017.

However, in future a number of factors could cause oil prices to fall. The reduction in supplies from the agreement's signatory countries may be offset by increased production at shale deposits in the US. In addition, the fact that supply and demand balanced out relatively quickly in the oil market is adding to the uncertainty regarding whether the agreement will be extended and for what volumes. Renewed supplies from a number of oil-exporting countries (Libya, Nigeria) could also exert further downward pressure on prices. And the relatively slow recovery in global demand might not be able to provide sufficient support for oil prices to offset the downward drag from supply-side factors.

Considering these trends, the Bank of Russia assumes that Urals crude prices will remain close to current levels (roughly $50 per barrel) during the first half of 2017, before gradually falling to roughly $40 per barrel in Q4 and remaining close to this level in 2018-2019.

Taking current business activity indicators dynamics[2] in the global economy into account, the assessment of the growth prospects of Russia's trading partners has been improved slightly. The Bank of Russia expects their aggregate growth to slightly exceed 2% p.a. in 2017-2019, which is

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[1] When the December Report was drafted, considerable uncertainty reigned regarding whether oil-exporting countries would abide by the agreements reached. Therefore, in December the Bank of Russia retained its assumption of Urals crude prices at $40 per barrel in 2017.

[2] In February, manufacturing PMI continued to grow in the euro area and the US, and remained elevated in China.

Chart 2.1
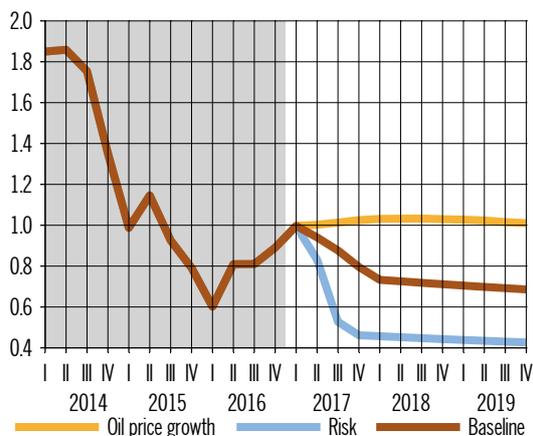
Terms of trade

Note: terms of trade are approximated by Urals crude price index in real terms (oil prices adjusted for foreign inflation).
Source: Bank of Russia calculations.

broadly in line with the forecasts by international organisations[3].

The intensifying positive trends in the global economy, together with the growth in oil prices, have led to inflation accelerating for Russia's trading partners, including in the euro area and the US. However, no marked increase in inflation processes is expected in the medium term. The world's largest central banks will maintain inflation close to target levels, using monetary policy measures where necessary. As a result, external inflationary pressure will not have any significant effect on domestic prices and inflation expectations in Russia. Though it cannot be ruled out that certain periods will see surges of price growth in certain commodity markets due to specific supply and demand factors. These may have a drag on the prices for certain product groups in Russia, but they are generally sporadic.

The Fed announced its intention to continue with the gradual normalisation of monetary policy. This can in part be explained by economic growth rates' proximity to the potential level and the accelerating inflation. Another factor contributing to the gradual increase in rates by the Fed is growing inflation expectations due to on-going uncertainty surrounding the fiscal policy measures that we can expect under Donald Trump's administration. The economic policy of the new US president may as

such become a factor, weighing significantly on the global economic situation, financial markets, and capital flow dynamics. Since specific measures have not yet been confirmed for the programmes proposed by Donald Trump, the Bank of Russia has not assumed any significant changes in US policy in its baseline scenario. In view of the above, the Bank of Russia is anticipating three Fed rate hikes in 2017 (including the increase in March), which on the whole is consistent with market expectations. Another major regulator, the ECB, is signalling its intention to maintain an easy monetary policy in the near future. As the quantitative easing programme will be gradually phased out by the end of 2017 – start of 2018, we may see a slight normalisation of monetary policy.

The Fed's rate increases will have a buoyant effect on rates in the global financial markets. Given the gradual nature of this increase, in the medium term the appeal of investments in the assets of developing and emerging markets, including Russia, will still remain. Interest rates in these countries will continue to be high compared with rates in developed countries, in part due to the need to maintain inflation at relatively low levels in EMEs, including Russia. However, the risk premium for Russia will be raised slightly on the back of oil prices falling to a level close to the average for the second half of 2016, after which it will slowly decline as trading conditions stabilise. The continued enforcement of the international sanctions will somewhat limit the cut in Russia's risk premium in 2018-2019.

Not ruling out an episodic increase in the volatility of capital inflows into EME assets, the Bank of Russia assumes that investors will generally increase their investments in Russian assets over the forecast period. The net private capital outflow from Russia in 2017-2019 will remain low (Table 2.2, Annex 'Balance of payments forecast for 2017-2019').

External lending conditions for Russian companies and banks will improve and, as a result, demand for Bank of Russia foreign currency refinancing operations will go down. The main factor shaping internal financial conditions will continue to be the Bank of Russia's moderately tight monetary policy. As inflation slows and anchors close to the 4% target, the Bank of Russia will gradually lessen the tightness of its monetary policy, which will in

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[3] The IMF forecasts global economic growth of 3.4% in 2017 and 3.6% in 2018; the OECD expects growth of 3.3% in 2017 and 3.6% in 2018; the World Bank reduced its global economic growth forecasts for 2017-2018 by 0.1 pp and now expects growth of 2.7% in 2017 and 2.9% in 2018.

turn drive down nominal rates in the economy. However, real rates will remain positive.

The conservative approach used by banks to assess potential borrowers will help to improve the quality of loan portfolios. Revival in economic activity and rising incomes will also contribute to the improved solvency of borrowers. Competition between banks for 'quality' customers will create opportunities to ease price and non-price lending conditions, primarily for the most reliable borrowers. Thus, the easing of lending conditions will entail enhanced sustainability in both in the banking sector and real sector, and will not pose any risks to financial stability in the medium term. However, in the event of imbalances and risks accumulating in certain market segments, the Bank of Russia is prepared to use macroprudential measures, among others, to counter-balance them.

The growth in the banking sector's lending[4] to the economy is estimated at 5-7% in 2017 (Table 2.1). The increase in both corporate and consumer lending will be due to the recovery in economic activity and will not pose any risks for the Bank of Russia reaching the 4% inflation target in 2017. According to Bank of Russia estimates, in 2018-2019 lending activity will achieve stability. The growth in lending to the economy will be 7-10%, which is in line with the estimates set out in the December Report.

The Bank of Russia estimates that the growth in money supply (according to the national definition) will outstrip the increase in lending to the economy and will total 8-11% in 2017, as set out in the previous Report. A positive contribution to the growth in money supply will continue to come from the increase in net general government borrowing from the banking system for funding the budget deficit. In future, as the budget deficit reduces[5] its contribution will decrease, which will bring the growth in money supply closer to the growth in lending to the economy in 2018-2019.

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[4] *The estimates of the growth in lending to the economy provided here and below are an estimate of the growth in banking sector claims on non-financial organisations and households, which slightly exceed banks' loan portfolios, as they also include bonds, promissory notes, shares, receivables linked to bank settlements, etc.*

[5] *Fiscal policy will be directed at fiscal consolidation with a gradual reduction in the federal budget deficit to 3%, 2% and 1% in 2017, 2018 and 2019, respectively.*

The recovery in lending activity as a result of the gradual and well-balanced easing of bank lending conditions will serve as a factor underpinning further economic recovery in 2017-2019. The more favourable borrowing conditions and increased income and financial stability of real sector companies will expand opportunities to attract borrowed funds to finance investment. This, together with the improving business sentiment already observed since the end of 2016 – start of 2017 and growth in profits, will help to accelerate the recovery in production and investment activity in the medium term.

The annual growth in gross fixed capital formation will be between 1.7% and 2.8% in 2017–2019. The on-going recovery in economic growth will help to buoy fixed capital investment. Overall, gross capital formation will significantly outpace gross fixed capital formation in 2017. A noticeable contribution will come from growth in inventories amid increased optimism among businesses regarding the prospects of renewed demand for their output. This trend was already observed at the end of 2016 – start of 2017. In future, gross fixed capital formation will become a key component of gross capital formation dynamics and will largely determine its rate of growth.

Growth in production and improvements in the financial positions of companies will support demand for labour. In these conditions, wages will continue to grow in nominal terms. Given inflation's persistent downward trend, real wages will also grow. The Bank of Russia expects that an increase in wages will follow a recovery in production and therefore will not exert a considerable pro-inflationary pressure.

In this situation, consumer activity will also gradually recover. According to Bank of Russia estimates, annual growth in households' consumer spending will move into positive territory as early as 2017 Q2. Overall, growth in spending will grow at a moderate pace over the forecast period – roughly 2.0-2.5% in 2017 and 2.3-2.8% in 2018-2019. Support for this growth in consumption will come not only from household income dynamics, but also the general stability and predictability of domestic economic conditions. Anchoring inflation close to 4% will be a significant factor behind these conditions. There are grounds to expect consumption to recover gradually. First, the persistence of positive

Table 2.1

Key parameters of the Bank of Russia's baseline forecast
(growth as % of previous year, unless indicated otherwise)

	2016 (estimate)	2017	2018	2019
Urals price, average for the year, US dollars per barrel	42	50	40	40
Inflation, % in December year-on-year	5.4	4.0	4.0	4.0
Gross domestic product	-0.2	1.0-1.5	1.0-1.5	1.5-2.0
Final consumption expenditure	-3.8	1.5-2.0	1.7-2.2	1.8-2.3
– households	-5.0	2.0-2.5	2.3-2.8	2.3-2.8
Gross formation	3.3	5.0-6.0	1.5-2.5	2.3-3.3
– gross fixed capital formation	-1.4	2.3-2.8	1.7-2.2	2.3-2.8
Net exports	21	-(28.6-23.6)	-(10.3-6.2)	-(8.3-3.8)
– exports	2.3	2.0-2.5	0.5-1.0	1.0-1.5
– imports	-5	8.2-8.7	3.0-3.5	2.8-3.3
Money supply in national definition	9.2	8-11	8-11	7-10
Monetary base in narrow definition	3.8	3-7	4-8	4-8
Loans to non-financial organisations and households in rubles and foreign currency	-1.8	5-7	7-9	8-10

real interest rates in the economy will support the incentive to save. Second, the moderately tight monetary conditions and conservative policies pursued by banks regarding borrower assessment will also encourage households to continue to take a measured approach to borrowing.

As consumption grows, demand will increase for both domestic and imported goods and services. The strengthening of the ruble amid higher oil price dynamics in the first half of 2017 will slightly raise the appeal of imported goods, thereby leading to increased purchases of imported goods. This will in part be down to the realisation of deferred household demand for imported goods as income dynamics recover. Taking these factors into account, the forecast increase in import quantities for 2017 was revised significantly upwards to 8.2-8.7%. A further stabilisation in oil prices will make growth in imports to slow to moderate levels – 2.8-3.5% in 2018-2019. Given the sluggish recovery in external demand, the forecast growth in exports in the medium term was not significantly revised. Annual growth in export quantities will be 2-2.5% in 2017, after which it will slow down slightly, not exceeding 1.5% in 2018-2019. As a result, net exports' contribution to GDP growth will move into negative territory in 2017 and will stay there for the remainder of the forecast period.

The increase in investment and recovery in supplies, together with renewed consumption, will make a positive contribution to GDP growth, estimated to be 1-1.5% in 2017 (Chart 2.2). The forecast economic growth has been revised upwards compared with the previous Report (0.5-1%), taking into account two factors. First, as noted above, the revision of data on GDP dynamics in 2016 suggests that we can now speak of a more pronounced recovery. Second, the average annual price of oil in this forecast is markedly higher than previously (taking into account the situation in the first half of 2017), as also reflected in GDP dynamics.

A fall in oil prices in the second half of 2017 will have a short-term negative effect on GDP dynamics. It could slow the pace of the recovery in output, but will not become a turning point in the recovery trends, considering the Russian economy's increased resilience to external shocks. It cannot be ruled out that quarterly economic growth rates will be significantly lower at the end of 2017 – start of 2018. However, as the situation stabilises in external markets, these rates will start to grow again. Based on the forecast for 2018-2019, GDP will increase by 1-2%.

An important factor in ensuring domestic macroeconomic stability, alongside monetary

Chart 2.2

GDP growth rate
(percent change on corresponding period of previous year)

Baseline

Source: Bank of Russia calculations.

Chart 2.3

Inflation
(percent change on corresponding period of previous year)

Baseline   Medium-term target
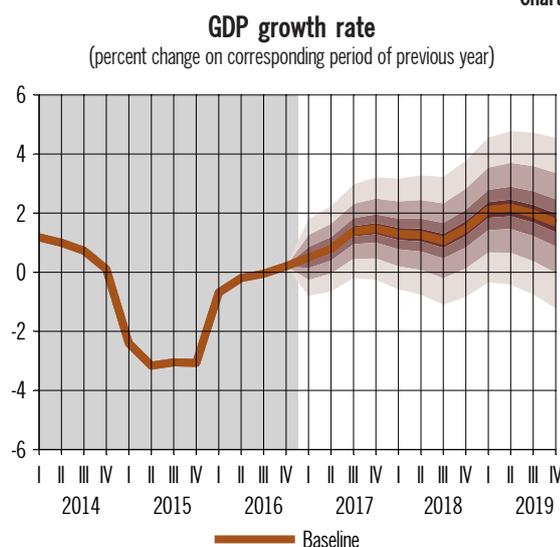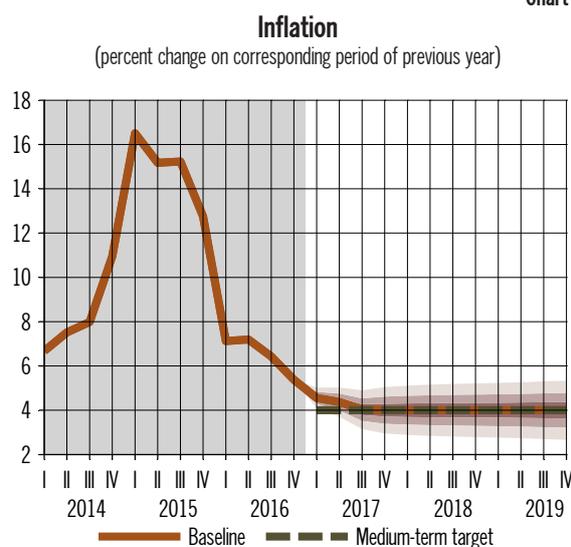
Source: Bank of Russia calculations.

policy, will be the implementation of the Russian Ministry of Finance's modified budget rule. This will help to reduce the economy's dependence on oil price fluctuations and ensure the stability of government finances, which is a key condition for balanced growth. In future, keeping economic growth at these levels may only be possible if structural policy measures are implemented. Otherwise, in the period beyond 2019, GDP growth rates will not exceed 1.5-2.0%, which is in line with current estimates of the Russian economy's medium-term potential.

Inflation will decline to 4% by the end of 2017 and will be kept close to this level by monetary policy measures (Chart 2.3). With the continuation of moderately tight monetary conditions, demand-side restrictions' contribution to inflation will remain negative over the bigger part of the forecast period.

Anchoring inflation close to 4% will help to bring down inflation expectations and the inertia of inflation expectations. This will in turn create the necessary conditions to keep inflation at low levels and reduce its sensitivity to temporary factors in future.

If oil prices fall in the second half of 2017 and remain low in 2018-2019, producer prices will grow relatively slowly. This will also be aided by the moderate indexation of administered prices and tariffs for services provided by natural monopolies. The combination of these two factors will exert a constraining effect on inflation in the medium term.

Exchange rate dynamics will not prevent inflation from reaching the target level at the end

of 2017 and remaining close to it over the forecast period. Keeping the necessary degree of tightness in monetary policy will facilitate this process.

Scenario with rising oil prices

This scenario assumes that average Urals crude prices will gradually rise from $55 per barrel in 2017 to $60 per barrel in 2018 and remain at this level further. Considering the potential increase in oil production at US shale deposits, the extension of the production restriction agreements reached between oil-exporting countries is not by itself sufficient to achieve upward oil price dynamics. One key factor underpinning stable oil price growth in the medium term could be more robust growth in the global economy, including the Chinese economy and developing economies, as well as a considerable increase in investors' optimism in global markets as compared with the baseline scenario.

An increase in oil prices will weigh on producer costs, which, amid overall positive global economic dynamics, will have a pro-inflationary effect and create preconditions for a more rapid normalisation of monetary policy by some of the world's largest central banks. The expected increase in interest rates will not, however, be significant to the extent to hamper the growth in investment in EMEs, including Russia, given the growing risk appetite among global investors. In these conditions, Russian companies will have better opportunities to refinance their external debts.

Table 2.2

Russia's balance of payment indicators – baseline scenario*

(billions of US dollars)

	2016 (estimate)	2017	2018	2019
Current account	**22**	**30**	**9**	**8**
Balance of trade	88	101	79	80
Exports	*279*	*316*	*298*	*307*
Imports	*-191*	*-214*	*-220*	*-227*
Balance of services	-24	-29	-28	-29
Exports	*50*	*53*	*56*	*57*
Imports	*-74*	*-81*	*-83*	*-86*
Primary and secondary income balance	-41	-43	-43	-44
Capital account	-1	0	0	0
Current and capital accounts balance	**21**	**30**	**9**	**8**
Financial account (excluding reserve assets)	**-12**	**-7**	**-8**	**-7**
General government and the central bank	4	6	5	6
Private sector (including net errors and omissions)	-16	-12	-13	-13
Change in reserve assets («+» – decrease, «-» – increase)	**-8**	**-23**	**0**	**0**

* *Signs according to BPM5.*

Note: owing to rounding the sums of the separate items may differ from the totals shown.

These factors, alongside the gradual easing of domestic monetary conditions and improved producer expectations, will bolster recovery processes in the Russian economy. This will create a background for more dynamic growth in wages and income, especially amid low unemployment. As a result, consumer demand will recover faster than in the baseline scenario. Like in the baseline scenario, consumption is not expected to outstrip growth in production and income, and will not therefore exert any significant pro-inflationary pressure.

Net exports will make a negative contribution to economic dynamics, because the increase in imports will outpace the growth in exports given that the ruble will be stronger than in the baseline scenario and domestic income will be expanding. However, in the early stages, growth in investment goods imports will exceed growth in consumer goods imports, given that production modernisation processes have already begun. Although actual net export quantities will reduce, the trade balance and current account balance will grow as oil prices rise. The growth in income in the economy will improve

opportunities to acquire foreign assets as one possible area of investment, which will lead to an increase in net capital outflow.

Under the transitional provisions of the budget rule, budget deficit reduction will be comparable with the baseline scenario. However, the fiscal policy will make a small negative contribution to GDP dynamics, as in the baseline scenario.

Due to the faster recovery in investment and consumer demand, in 2017-2018 economic growth will be higher than in the baseline scenario. As the potential for a faster recovery in growth is exhausted, in 2019 growth rates will be lower than in previous years and will be shaped further by structural factors.

In this scenario, inflation could fall to the 4% target slightly sooner than in the baseline scenario, as early as 2017 Q3. In these conditions, the interest rate path may be a little lower than in the baseline scenario over the forecast period. The tightness of monetary policy will be maintained to the extent to keep inflation close to the target level and bring inflation expectations down.

Risk scenario

The risk scenario assumes oil prices will fall to $25 per barrel at the end of 2017 and remain close to this level over the forecast period. These dynamics could result from a more significant slowdown in the Chinese economy compared with the baseline scenario. In these conditions, the agreements between oil-exporting countries will not play a major role and the incentives to comply with the agreements will abate.

The downturn in trading conditions will lead to a contraction in incomes and a revaluation of Russian economic outlook by both external investors and domestic market participants. This will intensify capital outflow and will be able to hamper external debt servicing by Russian companies and credit institutions. As a result, the recovery in investment processes will be pushed back and consumer demand will shrink. The only factor that will make a positive contribution to GDP in these conditions will be net exports. This can be explained by the drop in purchases of imported goods.

Consequently, economic growth will be lower in this scenario than in the baseline scenario. In 2017, GDP growth will be close to zero and will later move into negative territory. However, taking into account the economy's better resilience to external shocks, no material fall in business activity will follow. Overall, in 2017, the situation will be better than in 2016, primarily due to the revival in domestic economic activity and in the external economic situation, which began in the first half of 2017. These recovery processes will resume in the second half of 2018 if no new shocks occur, and further economic growth will continue to increase to its potential, which will be determined by structural factors.

The deterioration in the economic situation will cause growth in exchange rate uncertainty and inflation expectations, which will halt the fall in inflation and could even cause a temporary increase in inflation. The 4% target will be achieved in 2019. The Bank of Russia will determine the tightness of its monetary policy with due consideration given to inflation risks and risks to economic recovery and financial stability. In addition, the Bank of Russia will be prepared to expand the amount of funds to be supplied through foreign currency refinancing

operations if Russian companies and banks have difficulties servicing their external debts.

Medium-term forecast risks

In the medium term, there are still a number of risks, which, if realised, could have an impact on developments in the Russian economy. Among these risks, the most significant from the perspective of future inflation dynamics are risks linked to inflation expectations and growth in consumer activity that is excessive relative to the recovery processes in the economy.

Although the overall slowdown in inflation contributes to a reduction in inflation expectations, this process can evolve slower than assumed in the Bank of Russia's scenarios. Given the inertia of inflation expectations, it might take more time to link them to the target level for inflation. In addition, taking into account the persistent sensitivity of inflation expectations to temporary pro-inflationary factors, we cannot rule out a possible increase in inflation expectations in certain periods.

A reduction in savings incentives for households could be another significant pro-inflationary risk. It may occur, for example, in the event of a relatively quick recovery in both creditors' and borrowers' risk appetites. This would manifest itself in banks renouncing their conservative approaches to borrower assessment and increased demand for loans among households. As a result, net household claims on banks as an element of savings will grow more slowly. In the event that certain segments of the financial market show signs of imbalance, the Bank of Russia will be prepared to use macroprudential policy measures.

The non-oil and gas tax manoeuvre currently being discussed by the Russian Ministry of Finance[6] is expected to make a perceptible contribution to increasing inflation. However, this non-monetary factor will have a temporary effect on inflation (see Annex 'Non-monetary inflation factors'). Due to the lack of approved parameters and time frames for this manoeuvre, the Bank of Russia has not incorporated it into its baseline forecast, but has considered it among the possible risks. As some

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[6] *The Russian Ministry of Finance's proposals currently being discussed propose to reduce insurance premiums from 30% to 22%. This reduction will be offset by VAT increase from 18% to 22% (the '22/22' scheme).*

30   MONETARY
POLICY REPORT   No. 1 (17)   MARCH 2017   2. ECONOMIC OUTLOOK
AND KEY RATE DECISION

certainty starts to emerge on this matter, the Bank of Russia will take this factor into account when preparing its forecast. The need for, and degree of, a monetary policy response will be assessed taking into account the tax manoeuvre's drag on inflation expectations, among other things.

If the scenario with increased oil prices is realised, it is important to retain a conservative approach to fiscal policy, in particular, to channel additional oil and gas revenues into the Reserve Fund or to allocate them in order to cover the budget deficit in the amount stipulated by law.

If any of these risks occurs, a tighter monetary policy than the monetary policy assumed in the Bank of Russia's scenario may be required.

ANNEX

Dynamics of major items in the Russian balance of payments in 2016 Q4

In 2016 Q4[1], the reduction in the current account surplus slowed down due to the slowing decrease in the trade surplus as a result of export dynamics.

In Q4, the value of goods exports remained virtually unchanged, while in Q3 it shrank by 10%. Most of the support for exports in 2016 Q4 came from the increase in global oil prices compared with the same period in the previous year for the first time in 2.5 years. Coal and key export metals also rose significantly in price. The downturn in the price of natural gas in the European market, Russia's main market, slowed[2].

Actual energy exports remained generally high amid the increased oil and natural gas production, although the intragroup dynamics were varied. According to data from the FCS of Russia, in Q4 natural gas exports grew by 9.6% and crude oil exports – by 0.5%. At the same time, supplies of petroleum products shrank by 9% due to a partial re-orientation towards crude oil as part of the tax manoeuvre. Changes in competitive positions were observed in the markets for these goods. On the one hand, Russia's position improved in the Chinese oil market. According to the China Customs General Administration, crude oil imports into China from Russia grew by 19% in Q4. Russia's share in Chinese oil imports increased to 15%, which meant that Russia even exceeded Saudi Arabia by the volume of supplies. On the other hand, after sanctions were lifted at the start of 2016, Iran materially built up its supplies to Europe, which accounts for more than 60% of Russian oil exports.

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[1] Here and below, changes are relative to the corresponding period of the previous year, unless otherwise indicated.

[2] In 2016 Q4, Urals crude price increased by 13%, global price for Australian coal increased by 78% (according to World Bank data), for iron ore by 50%, and for aluminium and nickel by 14%. The annual decreases in the natural gas price in Europe reduced from 36% in Q3 to 22% in Q4.

Total oil and petroleum product exports from Russia to the EU shrank in Q4, according to FCS data. At the same time, the situation with Russian natural gas supplies to Europe improved slightly. Natural gas exports from Russia to its main European market (accounting for roughly 70% of Russian gas exports) expanded by 23% in Q4, mostly on account of Germany, the UK and Poland. Turkey ratified the agreement with Russia to construct the Turkish Stream gas pipeline. Completion of this project will allow Russia to increase supplies to Turkey (the key consumer of Russian gas, accounting for 12% of exports) and reduce its dependence on transiting Russian gas to Europe through Ukraine.

In turn, the growth in the value of goods imports accelerated from 6% in Q3 to 8% in Q4. The increase in imports was linked to the ruble appreciation and the renewed demand for goods amid the slight improvement in the situation in the Russian economy. The ruble real effective exchange rate to foreign currencies rose by more than 10% in Q4. Imports increased by roughly half on account of capital goods on the back of growth in business activity in the manufacturing industry. The imports of capital goods grew by 18% in Q4, while the imports consumer goods increased by 7%. Engineering products made the largest contribution to the revival in imports out of all product groups.

The increase in goods imports started to make a negative contribution to trade balance and current account dynamics from 2016 Q3 onwards. The contraction in the trade surplus in 2016 was offset in part by the reduction in the balance of services deficit, mostly due to a decrease in the imports of tourism services amid the suspension of flights to Egypt since November 2015. Changes in other components did not make any perceptible contribution to the current account (Chart 1).

The reduction in the current balance of payments surplus was accompanied by a decrease in net

Chart 1

Major balance of payments components*
(billions of US dollars)

☐ Trade balance	☐ Capital account balance
☐ Balance of services and non-tradable components	☐ Banking sector financial account balance
☐ Other sectors financial account balance	☐ Financial account balance of general government and central bank
☐ Net errors and omissions	—— Change in international reserves ('+' - increase, '-' - decrease)

According to BPM5.
** 2016 Q4 - estimate.*
Source: Bank of Russia.

capital exports by banks and companies[3]. In 2016 Q4, according to a preliminary estimate, it reduced by a factor of almost three compared with the same period in 2015, to $5 billion. This slowdown in outflow occurred amid reduced external debt payments by the private sector. In 2016 Q4, banks' foreign liabilities reduced by roughly $7 billion, while

in 2015 Q4 they shrank by $9 billion. Companies refinanced their external debts despite the limited access to Western capital markets caused by the sanctions. In 2016 Q4, other sectors were able to increase their foreign liabilities by more than $18 billion, with the payments under the external debt repayment schedule totalling $26 billion.

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[3] *Adjusted by the amount of foreign currency liquidity provided by the Bank of Russia to credit organisations on a reverse basis, by the amount of operations in resident banks' correspondent accounts held with the Bank of Russia, and also by the amount of funds in foreign currency received by the Bank of Russia as part of FX swaps.*

Balance of payments forecast for 2017-2019

The oil price assumptions set out in the December Report have been revised upwards: in 2017 for the baseline and risk scenarios and over the entire forecast period for the scenario assuming a more favourable external economic climate. In addition to the oil price factor, the balance of payments forecast parameters were affected by adjustments to forecasts for a number of other key macroeconomic indicators[1].

The baseline scenario assumes oil prices of roughly $50 per barrel on average in 2017 amid a faster restoration of balance in the global oil market thanks to the effective implementation of the oil production restriction agreement, while in the previous Report oil prices were expected to be $40 per barrel. However, oil prices are still assumed to fall to $40 per barrel by the end of 2017 when the agreement expires in June and as oil output increases in the US amid growing productivity, drilling activity and the commissioning of new wells. In 2018-2019, average oil prices for the year are expected to remain close to $40 per barrel.

The forecast value of exports has been significantly increased due to the upward revision of average oil prices for 2017 and forecasts by international organisations regarding prices for gas in Europe and prices for metals. Amid growth in global commodity prices, exports will expand overall in 2017. However, in 2018 they are expected to shrink as a result of falling average oil prices for the year. In 2019, amid stable prices, exports will increase slightly due to growth in export quantities as external demand expands.

At the same time, the improvement in the estimates of Russia's GDP growth compared with the forecasts published in the previous Report and the effect of the ruble rallying at the start of the year will cause a faster growth in imports in 2017 than previously expected. The growth in imports will continue in 2018-2019 amid recovered domestic demand, albeit at a slower rate.

Since the growth in the value of exports amid the higher oil prices in 2017 will be higher than the growth in imports, the external trade balance

surplus will increase noticeably. In 2018, it will contract sharply due to the reduction in exports as average energy prices will fall and imports will increase, but in 2019 it will not change significantly.

The deficit in non-tradable components will continue to be low. At the same time, increase in external debts and interest payments to service external debts will entail an increase in the investment income deficit.

The considerable growth in the current account surplus in 2017 and the shrinking of this surplus in 2018 will largely be shaped by external trade balance dynamics. In 2019, the current account surplus will stabilise at roughly $10 billion: growth in the negative balance of services and non-tradable components will offset the slight improvement in the trade balance (Chart 1).

The net private capital outflow will continue to slow down to $12 billion in 2017, and will remain close to this low level in 2018-2019.

On the one hand, the now smaller reduction in foreign liabilities will contribute to the reduction in the capital outflow, as shown, in particular, by the external debt repayment schedule. The actual net reduction in foreign liabilities is estimated to be significantly lower than the schedule, taking into account the continuing inflow of liabilities in the form of direct foreign investment[2], intragroup loans and borrowings, and the partial refinancing of debts. In addition, the outflow of capital linked to the net reduction in liabilities will go down as companies find sources of external funding not affected by the sanctions, and in 2019 there is expected to be a net inflow of liabilities.

On the other hand, the capital outflow due to the increase in foreign assets will grow, and in 2017-2019 will be a key component of the total net private capital outflow linked to the gradual increase in economic agents' income amid growth in the Russian economy. However, it will still be relatively low given the persistently high appeal of ruble-denominated investment compared with foreign currency investment due to the interest rate differential. In addition, with oil prices falling and remaining low, receipts from foreign economic activity will not grow significantly. The financial position of economic agents will not improve to the

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[1] See Section 2 'Economic outlook and key rate decision'.

[2] Including liabilities not associated with debt accumulation, for example, equity holdings in affiliated and subsidiary companies.

Chart 1

Major current account components*
(billions of US dollars)

Trade balance
Capital account balance
Balance of services
Balance of non-tradable components
Balance of current and capital account
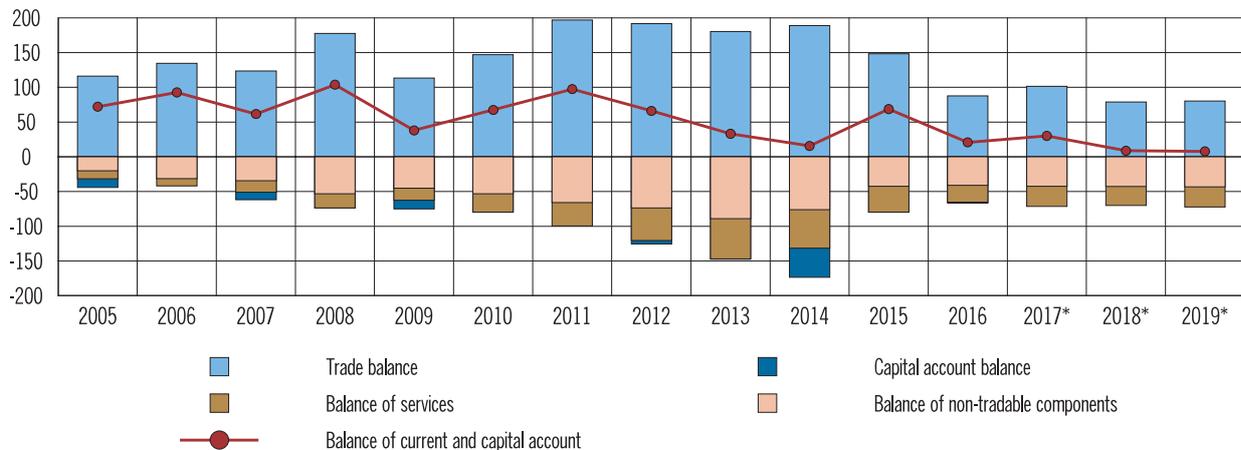
* Baseline scenario forecast.
Source: Bank of Russia.

extent that they can channel substantial funds into the acquisition of foreign assets. Moreover, some liquid foreign assets will be used to fund payments on liabilities and also to repay bank debts on foreign exchange repos with the Bank of Russia (Chart 2).

In 2017, reserve assets will increase materially both due to the liquidity supplied through foreign currency refinancing operations being repaid to the Bank of Russia and due to the acquisition of foreign currency for the Russian Ministry of Finance as part of its transitional budget rule.

According to the scenario where oil prices rise to roughly $60 per barrel in 2019 and external demand grows more rapidly, in 2017-2019 exports will be significantly higher than in the baseline scenario. Import volumes will also be more elevated than in the baseline scenario, due to the faster recovery of the Russian economy and stronger ruble. Since growth in exports will outstrip the recovery of imports, the positive trade and current account balance will gradually expand over 2017-2019, ending up higher than in the baseline scenario.

Amid growth in GDP and oil prices, the investment appeal of Russian assets will grow for non-residents, which will create conditions for external borrowing by Russian companies to increase. At the same time, as income increases, so too will the Russian private sector's interest in acquiring foreign assets. Overall, the capital outflow under this scenario will increase and remain high compared with the baseline scenario. Credit institutions will pay off existing debts on foreign exchange repos with the Bank of Russia in full before the end of

2017. Together with the larger acquisition of foreign currency by the Russian Ministry of Finance than in the baseline scenario, this will lead to growth in international reserves over the forecast period.

If the risk scenario is realised, oil prices are expected to fall in the second half of 2017 to $25 per barrel and remain close to this level until the end of 2019. This will lead to a significant drop in exports compared with the baseline scenario. At the same time, demand for imported goods will shrink amid the reduction in consumption and investment in 2017-2018. The depreciation of the ruble in 2017 amid falling oil prices will also exert downward pressure on imports. A larger drop in exports compared with a squeeze on imports will lead to the trade balance deteriorating and the current account surplus falling in 2017-2018. In 2019, the current balance of payments surplus is expected to stabilise at a lower level compared with the baseline scenario.

The net reduction in liabilities will grow considerably amid tighter external funding conditions due to the weaker appeal of Russian assets for non-residents. Refinancing existing borrowings and taking on new liabilities amid a major slump in oil prices and reduced economic activity will become more difficult. This effect will be most pronounced in 2018. As a result, net private capital outflow will be by far higher than in the baseline scenario. At the same time, the outflow caused by Russian companies' demand for foreign assets will be lower than in the baseline scenario over the entire forecast period amid lower income.

Chart 2

Capital outflow*
(billions of US dollars)
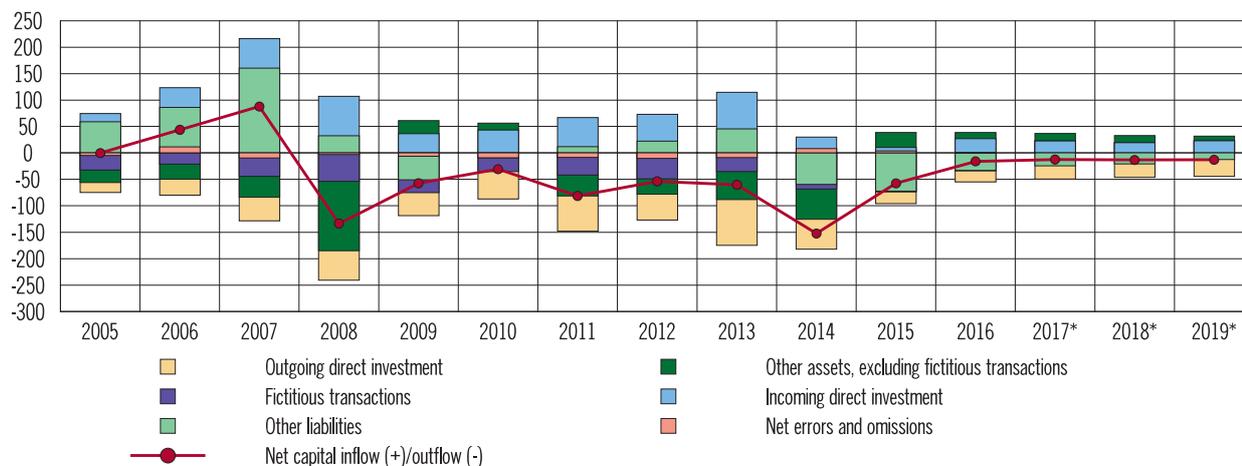
* Baseline scenario forecast.
Source: Bank of Russia.

Subject to that, in 2017 and 2019 the net private capital outflow under the risk scenario will be close to the levels of the baseline scenario.

However, the Bank of Russia does not ruled out the possibility of there being a need to increase the amount of its foreign currency provision operations on a reverse basis against the backdrop of a massive deterioration in foreign economic conditions in order to avoid risks to financial stability. In addition, a slight contraction in reserve assets is expected due to the Ministry of Finance's reverse operations under the announced mechanism to implement the budget rule[3].

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[3] According to this mechanism, the amount of the Ministry of Finance's operations to sell foreign currency cannot exceed the total amount of foreign currency purchases.

Statistical analysis of differences in economic development of Russian regions

Figures reflecting growth in the regions continued to improve at the end of 2016 – start of 2017 and became more uniform.

With the revival in economic activity, the situation in the labour market remained favourable in 2016. Nominal wages in Russia as a whole grew by 7.8% with growth observed across all types of economic activity. The regional variation in nominal wage growth rates went down (Chart 1). The number of regions with wage growth exceeding 5% increased by more than twofold. The highest rates of wage growth were seen in the financial centres (Moscow, St. Petersburg).

Amid stable wage growth, the year-on-year reduction in retail turnover slowed significantly in January 2017 to 2.3%. The payment of one-time supplementary pension benefit may also have made a positive contribution to these dynamics. The regional distribution of the indicator's annual growth came to be more centred around the average value (Chart 2). The number of regions in which retail turnover shrank by more than 10% decreased to zero in January 2017 (11% in January 2016). Three regions reported annual retail turnover growth of more than 3%: the Penza Region, the Republic of Mordovia, and the Leningrad Region. High annual growth in retail turnover (more than 10%) in the Republic of Ingushetia, the Omsk Region, and the Chechen Republic was caused by the low base effect.

In February 2017, annual inflation continued to slow to 4.6%. The distribution of this indicator across constituent territories of the Russian Federation became more uniform, and in 28 regions annual inflation was below 4%. Of the regions where annual inflation was below 4%, nine were regions in the Volga Federal District and seven were regions in the Siberian Federal District. The slowdown in inflation was aided by households adopting a savings behaviour model, the ruble appreciation and good agricultural harvests in 2016. The improved competition in the food market, in particular the

Chart 2
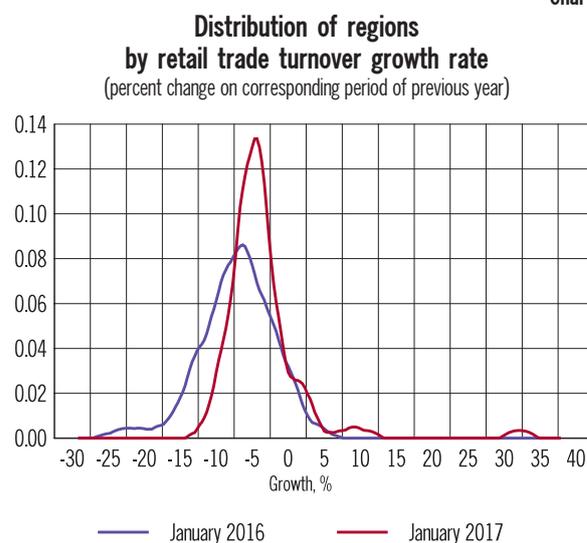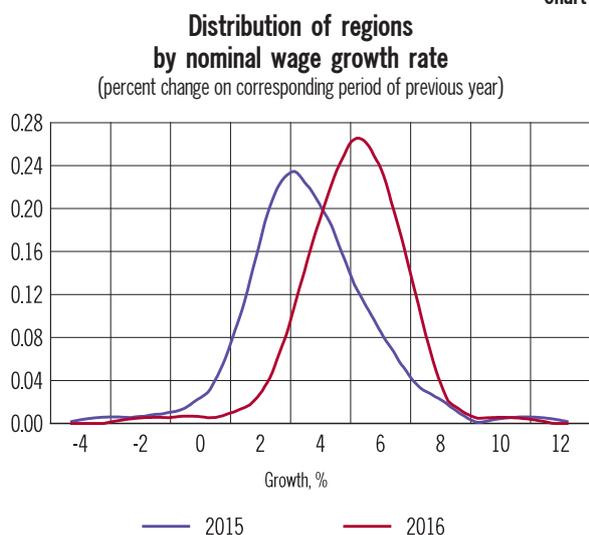
**Distribution of regions
by retail trade turnover growth rate**
(percent change on corresponding period of previous year)

—— January 2016   —— January 2017

Sources: Rosstat, Bank of Russia calculations.

Chart 1

**Distribution of regions
by nominal wage growth rate**
(percent change on corresponding period of previous year)

—— 2015   —— 2016

Sources: Rosstat, Bank of Russia calculations.

Chart 3

**Distribution of regions
by annual inflation**
(percent change on corresponding period of previous year)

—— February 2016   —— February 2017
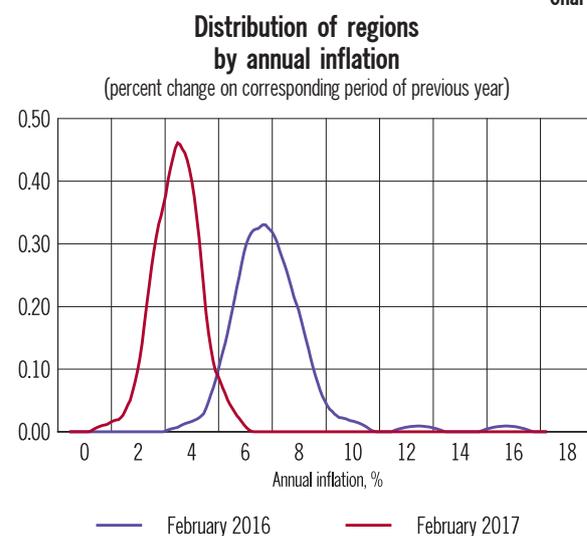
Sources: Rosstat, Bank of Russia calculations.

support provided by regional governments to local producers, retail networks and the appearance of trade fairs for low-income households, is creating additional preconditions for inflation to remain consistently low in certain constituent territories of the Russian Federation.

Non-monetary inflation factors

To analyse the effectiveness of macroeconomic policy measures, inflation factors are often broken down into monetary and non-monetary factors. There are no commonly accepted criteria to clearly refer factors to either group. Different classifications can be found in economics literature[1]. Based on macroeconomic regulatory practices, monetary inflation factors include those factors over which the Bank of Russia exerts a material direct influence using monetary policy instruments. Conversely, if the driving forces behind inflation in the medium term are predominantly independent of monetary policy (i.e. they are outside its sphere of influence), they are defined as non-monetary factors. There are factors of a mixed monetary and non-monetary nature, which are significantly influenced by both monetary and non-monetary conditions.

According to the approach adopted, non-monetary factors include external economic conditions, the structural characteristics of the economy (for example, the characteristics of fixed assets, labour, the technological level of production, transport and logistics infrastructure), institutional conditions (the legal regulation of economic activity, characteristics of market institutions, for example, the level of competition), fiscal policy, and environmental and political factors affecting the supply of goods (trade restrictions, harvests) (Chart 1).

When analysing and forecasting price dynamics, it is important to identify the impact of non-monetary factors as the ways in which monetary policy reacts to these factors can have undesirable consequences. These effects can be varied. Some of the most widespread short-term non-monetary shocks include fluctuations in the situation in food markets due to harvest volumes, sporadic situations, changes in global prices for certain types of food products and the imposition or lifting of trade restrictions. Another example is one-off changes in tax rates. A monetary policy response to such shocks is advisable only in instances when they have a considerable impact on inflation expectations (i.e. they have so-called secondary effects).

The impact of other non-monetary factors on inflation is indirect and long-term. For example, an investment pause leading to the reduction in quantities, depreciation, and obsolescence of fixed assets can weigh negatively on potential output. A drop in output creates pro-inflationary pressure or reduces the constraining effect of insufficient demand. In contrast, positive changes in the institutional environment such as measures facilitating access to markets or to infrastructure will help to increase competition, raise production efficiency and, as such, reduce the cost-side pressure on prices. To offset the negative drag or intensify the positive effects of long-term non-monetary factors, a comprehensive and active government policy is required, aimed at modernising the economy, bolstering the innovative component of growth, improving market institutions, and promoting competition.

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[1] *Cf. for example: Cottarelli C., Griffiths M., Moghadam R. (1998) The Nonmonetary Determinants of Inflation: A Panel Data Study // IMW WP/98/234; Grauwe P. D., Polan M. (2001). Is Inflation Always and Everywhere a Monetary Phenomenon? // CEPR Discussion paper No. 2841; Hammermann F. (2007). Nonmonetary Determinants of Inflation in Romania // Kiel WP No. 1322; Пителин А.К. (2015) О немонетарных факторах инфляции // Экономика и математические методы. т.51, №1, с.45-67.*

Chart 1

INFLATION FACTORS AND THEIR KEY PASS-THROUGH CHANNELS

Inflation

Output gap

Demand

Supply

Weather, epizootic and phytosanitary factors — Natural factors

Regulatory and legal environment — Institutional factors

Consumer loans

Propensity to save

Corporate loans

Expenses, profitability

Fixed assets (value, quality, structure)

Labour force (supply, qualitative and structural features)

Technological level

Infrastructure (transport, logistics)

Structure of markets (concentration) — Structural factors

Banking sector regulation, macroprudential policy

Terms of banking operations

Household income, employment

Tariff policy

Tax policy

Budget deficit — Fiscal policy

Operational procedures, situation with liquidity

Key rate

Interest margin

Exchange rate

Inflation expectations

Exchange-rate expectations

Behavioural patterns of producers, investors and consumers

Balance of payments

Situation in the global commodity markets

External demand

Global financial markets

Sanctions — External factors

Factors determined by the Bank of Russia

Monetary factors

Monetary/nonmonetary factors

Nonmonetary factors

Changes in the system of monetary policy instruments and other Bank of Russia measures

Table 1

**Changes in the system of monetary policy instruments
and other Bank of Russia measures**

Changes to the rates of Bank of Russia FX swaps	From 23 December 2016, the following interest rates are set for the foreign currency leg of FX swaps: – for USD and euro/RUB sell/buy FX swaps interest rates equal USD/euro LIBOR rates for overnight loans respectively; – for USD/RUB sell/buy FX swaps with 'today/tomorrow' and 'tomorrow/next day' settlements interest rates equal USD LIBOR rates for overnight loans plus 1.50 pp.
Credit institutions' maximum outstanding amount of Bank of Russia FX refinancing operations for 2017	For 2017, credit institutions' maximum outstanding amount of Bank of Russia FX repos and FX loans secured by the pledge of claims on FX loans is set at the equivalent of $25 billion.
Change to the procedure of Bank of Russia fixed-rate repos	Since 16 January 2017, the Bank of Russia conducts fixed-rate repos in the interval from 10:45am to 6:00pm Moscow time. This leaves the beginning of repos unchanged and extends their active period by 30 minutes.
Expansion of the Bank of Russia Lombard List	According to the decisions of the Bank of Russia Board of Directors of 19 December 2016, 25 January and 27 February 2017, a further 29 securities issues were added to the Bank of Russia Lombard List.

Table 2

Interest rates on Bank of Russia operations to provide and absorb ruble liquidity

(% p.a.)

Purpose	Type of instrument	Instrument	Term	Frequency	As of 1.01.16	From 14.06.16	From 19.09.16	From 27.03.17
Liquidity provision	Standing facilities	Overnight loans; lombard loans; loans secured by gold, non-marketable assets or guarantees; FX swaps (ruble leg)[1]; repos	1 day	daily	12.00	11.50	11.00	10.75
		Loans secured by gold	from 2 to 549 days[2]	daily	12.50	12.00	11.50	11.25
		Loans secured by non-marketable assets or guarantees			12.75	12.25	11.75	11.50
	Open market operations (minimum interest rates)	Auctions to provide loans secured by non-marketable assets	3 months[2] from 1 to 3 weeks[4]	monthly[3]	11.25	10.75	10.25	10.00
		Lombard loan auctions	18 months[2,4] 36 months[2,4]	occasionally				
		Repo auctions	1 week from 1 to 6 days[6]	weekly[5]	11.00 (key rate)	10.50 (key rate)	10.00 (key rate)	9.75 (key rate)
		FX swap auctions (ruble leg)[1]	from 1 to 2 days[6]	occasionally				
Liquidity absorption	Open market operations (maximum interest rates)	Deposit auctions	from 1 to 6 days[6] 1 week	weekly[5]				
	Standing facilities	Deposit operations	1 day, call	daily	10.00	9.50	9.00	8.75

[1] From 23 December 2016, interest rates on foreign currency leg equal LIBOR for 1-day USD/EUR loans (depending on the currency of the operation).
[2] Loans provided at a floating interest rate linked to the Bank of Russia key rate.
[3] Operations have been discontinued from April 2016.
[4] Operations have been suspended since 1 July 2016.
[5] Either a repo or a deposit auction is held depending on the situation with liquidity. See press-release http://www.cbr.ru/press/PR.aspx?file=19012015_154523if2015-01-19T15_41_11.htm.
[6] Fine-tuning operations.

Memo item: from 1 January 2016, the value of the Bank of Russia refinancing rate equals its key rate as of the respective date.

Source: Bank of Russia.

Statistical tables

Bank of Russia operations to provide and absorb ruble liquidity

Purpose	Type of instrument	Instrument	Term	Frequency	Bank of Russia claims on liquidity provision instruments and obligations on liquidity absorption instruments, billions of rubles					
					As of 1.01.16	As of 1.07.16	As of 1.10.16	As of 1.01.17	As of 1.02.17	As of 1.03.17
Liquidity provision	Standing facilities	Overnight loans	1 day	daily	0.0	1.5	2.6	0.0	0.0	0.0
		Lombard loans			2.9	1.2	1.2	0.6	0.6	0.0
		FX swap			14.9	0.0	49.8	37.8	0.0	151.8
		Repos			264.9	273.7	408.7	593.9	74.2	155.9
		Loans secured by gold	from 1 to 549 days		0.5	0.0	0.0	0.0	0.0	0.0
		Loans secured by non-marketable assets or guarantees	from 1 to 549 days		234.8	242.1	331.7	410.7	411.8	166.1
	Open market operations	Auctions to provide loans secured by non-marketable assets	3 months	monthly[2]	1,553.8	219.6	216.2	215.6	0.0	0.0
			from 1 to 3 weeks[1], 18 months[1]	occasionally						
		Repo auctions	1 week	weekly[3]	1,448.5	370.7	0.0	0.0	270.2	0.0
			from 1 to 6 days							
		FX swap auctions	from 1 to 2 days	occasionally[4]	0.0	0.0	0.0	0.0	0.0	0.0
Liquidity absorption	Open market operations	Deposit auctions	from 1 to 6 days		0.0	0.0	180.0	397.0	710.0	440.0
			1 week	weekly[3]						
	Standing facilities	Deposit operations	1 day, call	weekly	557.8	436.8	374.7	388.2	225.4	196.9

[1] Operations have been suspended since 1 July 2016.
[2] Operations have been discontinued from April 2016.
[3] Either a repo or a deposit auction is held depending on the situation with liquidity.
[4] Fine-tuning operations.

Source: Bank of Russia.

Table 2

Required reserve ratios
(%)

Liability type	Periods			
	From 1.01.16 to 31.03.16	From 1.04.16	From 1.07.16	From 1.08.16
To households in rubles	4.25	4.25	4.25	5.00
To non-resident legal entities in rubles				
Other liabilities in rubles				
To households in foreign currency			5.25	6.00
To non-resident legal entities in foreign currency		5.25	6.25	7.00
Other liabilities in foreign currency				

Source: Bank of Russia.

Table 3

Required reserve averaging ratio

Types of credit institutions	From 1.01.16
Banks	0.8
Non-bank credit institutions	1.0

Source: Bank of Russia.

Table 4

Bank of Russia operations to provide foreign currency

Instrument	Term	Frequency[1]	Minimum auction rate as spread to LIBOR[2], pp; fixed interest rate for FX swaps[3], % p.a.		Bank of Russia claims, millions of US dollars[4]					
			From 14.12.15	From 23.12.16	As of 1.01.16	As of 1.07.16	As of 1.10.16	As of 1.01.17	As of 1.02.17	As of 1.03.17
Repo auctions	1 week	weekly	2.00	2.00	100.1	0.0	0.0	2,635.2	0.0	0.0
	28 days				5,016.7	12,955.2	9,913.4	8,719.9	6,237.1	5,612.1
	12 months		3.00	3.00	15,550.0	168.5	159.6	26.2	26.1	0.0
Loan auctions	28 days	monthly	2.25	2.25	0.0	0.0	0.0	0.0	0.0	0.0
	365 days		3.25	3.25	1,494.7	0.0	0.0	0.0	0.0	0.0
USD/RUB sell/buy FX swaps	1 day	daily	1.50	LIBOR[2]+1.50	0.0	420.5	0.0	1,000.0	0.0	0.0

[1] In 2016 and in January-March 2017, no credit auctions were held; 12-month repo auctions have been suspended since 1 April 2016.
[2] In respective currencies and for respective terms.
[3] The rate for ruble leg is equal to the Bank of Russia key rate less 1 pp.
[4] Claims on credit institutions under the second leg of repos.

Source: Bank of Russia.

Table 5

Bank of Russia specialised refinancing facilities[1]

Purpose of indirect bank lending	Maturity	Collateral	Interest rate, % p.a.[2]		Bank of Russia claims on credit institutions, billions of rubles						Limit as of 1.03.17, billions of rubles
			From 19.09.16	From 27.03.17	As of 1.01.16	As of 1.07.16	As of 1.10.16	As of 1.01.17	As of 1.02.17	As of 1.03.17	
Non-commodity exports	Up to 3 years	Claims under loan agreements secured by contracts of insurance of JSC EXIAR	9.00	8.75	39.66	50.98	49.62	43.38	35.95	32.31	75.00
Large-scale investment projects[3]	Up to 3 years	Claims under bank loans for investment projects secured by the government guarantees of the Russian Federation	9.00	8.75	53.44	91.02	101.12	112.62	112.35	106.60	150.00
		Bonds placed to fund investment projects and included in the Bank of Russia Lombard List	9.00	8.75	2.85	0.86	0.83	0.59	0.59	0.00	
Small and medium-sized enterprises	Up to 3 years	Claims under loan agreements of JSC SME Bank[4]	6.50	6.50	40.10	43.20	44.01	43.12	40.09	39.68	125.00
	Up to 3 years	Guarantees of JSC Russian Small and Medium Business Corporation issued under the Programme for Encouraging Lending to Small and Medium-sized Enterprises			0.08	8.50	24.95	48.17	53.69	62.20	
Leasing	Up to 3 years	Claims on loans to leasing companies	9.00	8.75	0.00	0.00	0.00	0.00	0.00	0.12	10.00
Military mortgage	Up to 3 years	Mortgages issued under the Military Mortgage programme	10.00	9.75	21.01	29.31	29.31	29.31	29.31	29.31	30.00

[1] Specialised refinancing facilities are Bank of Russia instruments aimed at encouraging bank lending to certain segments of the economy whose development is hampered by structural factors. Under these facilities, the Bank of Russia provides funds to credit institutions at lower rates and for longer maturities compared with standard Bank of Russia operations. Specialised refinancing facilities are temporary Bank of Russia instruments, which will be valid until conditions for their replacement with market instruments are created in the financial market. The provision of funds under the specialised facilities is restricted, because their application should not distort the stance of the monetary policy and hamper the achievement of its key objective of ensuring price stability.

[2] For more information on the interest rates on the Bank of Russia's specialised instruments see the section Monetary Policy on the Bank of Russia website.

[3] Projects are selected in compliance with the rules established by Regulation of the Government of the Russian Federation No. 1016, dated 14 December 2010, 'On Approving the Rules to Select Investment Projects and Principals for the Provision of the Russian Federation State Guarantees on Loans or Bonded Loans Attracted to Carry out Investment Projects' or Regulation of the Government of the Russian Federation No. 1044, dated 11 October 2014, 'On Approving the Programme to Support Investment Projects Implemented in the Russian Federation Based on Project Financing'.

[4] Claims under loans issued to banks and microfinance organisations partnering with JSC SME Bank under the Programme for Financial Support of Small and Medium-sized Enterprises Development for lending to SMEs and claims under loans issued to leasing companies partnering with JSC SME Bank for leasing property to SMEs.

Source: Bank of Russia.

Table 6

Consumer prices by group of goods and services
(month on previous month, %)

	Inflation	Core inflation	Food	Food[1]	Vegetables and fruit	Non-food goods	Non-food goods excluding petrol[2]	Services
2015								
January	3.9	3.5	5.7	3.7	22.1	3.2	3.5	2.2
February	2.2	2.4	3.3	2.7	7.2	2.1	2.3	0.8
March	1.2	1.5	1.6	1.6	1.2	1.4	1.6	0.3
April	0.5	0.8	0.3	0.9	-3.7	0.9	0.9	0.0
May	0.4	0.6	0.1	0.2	-1.0	0.5	0.6	0.5
June	0.2	0.4	-0.4	0.2	-5.0	0.3	0.3	1.0
July	0.8	0.4	-0.3	0.3	-4.2	0.5	0.3	3.0
August	0.4	0.8	-0.7	0.5	-9.8	0.8	0.7	1.3
September	0.6	0.8	0.4	0.7	-2.3	1.1	1.1	0.0
October	0.7	0.7	1.0	0.8	2.9	1.0	1.1	-0.1
November	0.8	0.6	1.2	0.7	5.6	0.7	0.8	0.2
December	0.8	0.6	1.2	0.6	6.6	0.4	0.5	0.7
Total for the year (December on December)	12.9	13.7	14.0	13.6	17.4	13.7	14.5	10.2
2016								
January	1.0	0.8	1.2	0.6	6.2	0.7	0.8	1.0
February	0.6	0.7	0.7	0.5	2.3	0.8	0.9	0.3
March	0.5	0.6	0.4	0.6	-1.3	0.8	0.8	0.1
April	0.4	0.5	0.4	0.5	-0.1	0.6	0.6	0.3
May	0.4	0.5	0.4	0.3	0.6	0.4	0.4	0.5
June	0.4	0.4	0.1	0.3	-1.1	0.5	0.4	0.6
July	0.5	0.3	0.0	0.5	-4.2	0.4	0.3	1.7
August	0.0	0.4	-0.6	0.4	-8.9	0.4	0.4	0.3
September	0.2	0.5	-0.1	0.4	-5.4	0.6	0.6	0.1
October	0.4	0.4	0.8	0.6	2.5	0.5	0.6	-0.3
November	0.4	0.4	0.7	0.5	2.5	0.4	0.5	0.0
December	0.4	0.3	0.6	0.6	0.9	0.3	0.3	0.3
Total for the year (December on December)	5.4	6.0	4.6	6.0	-6.8	6.5	6.8	4.9
2017								
January	0.6	0.4	0.9	0.3	5.3	0.5	0.4	0.5
February	0.2	0.2	0.2	0.1	0.6	0.2	0.2	0.3

[1] Excluding vegetables and fruit.
[2] Bank of Russia estimate.

Sources: Rosstat, Bank of Russia calculations.

Table 7

Consumer prices by group of goods and services

(month on corresponding month of previous year, %)

	Inflation	Core inflation	Food	Food[1]	Vegetables and fruit	Non-food goods	Non-food goods excluding petrol[2]	Services
2015								
January	15.0	14.7	20.7	18.4	40.7	11.2	11.4	12.3
February	16.7	16.8	23.3	20.8	43.5	13.0	13.5	12.8
March	16.9	17.5	23.0	21.1	38.0	13.9	14.6	12.6
April	16.4	17.5	21.9	20.8	30.0	14.2	15.0	11.8
May	15.8	17.1	20.2	19.5	25.7	14.3	15.1	11.6
June	15.3	16.7	18.8	18.4	22.8	14.2	15.0	11.7
July	15.6	16.5	18.6	17.5	27.9	14.3	15.0	13.4
August	15.8	16.6	18.1	17.0	29.1	14.6	15.3	14.1
September	15.7	16.6	17.4	16.4	27.7	15.2	16.0	13.8
October	15.6	16.4	17.3	16.2	27.9	15.6	16.6	13.1
November	15.0	15.9	16.3	15.5	24.3	15.7	16.7	11.9
December	12.9	13.7	14.0	13.6	17.4	13.7	14.5	10.2
2016								
January	9.8	10.7	9.2	10.2	2.0	10.9	11.4	9.0
February	8.1	8.9	6.4	7.8	-2.7	9.5	9.9	8.5
March	7.3	8.0	5.2	6.7	-5.1	8.8	9.1	8.2
April	7.3	7.6	5.3	6.3	-1.6	8.5	8.7	8.4
May	7.3	7.5	5.6	6.4	0.0	8.4	8.5	8.4
June	7.5	7.5	6.2	6.5	4.1	8.5	8.7	7.9
July	7.2	7.4	6.5	6.7	4.2	8.4	8.7	6.5
August	6.9	7.0	6.5	6.7	5.3	8.1	8.4	5.5
September	6.4	6.7	5.9	6.4	1.9	7.5	7.9	5.6
October	6.1	6.4	5.7	6.1	1.5	7.0	7.4	5.4
November	5.8	6.2	5.2	6.0	-1.5	6.7	7.0	5.3
December	5.4	6.0	4.6	6.0	-6.8	6.5	6.8	4.9
2017								
January	5.0	5.5	4.2	5.7	-7.6	6.3	6.4	4.4
February	4.6	5.0	3.7	5.4	-9.0	5.7	5.7	4.3

[1] Excluding vegetables and fruit.
[2] Bank of Russia estimate.

Sources: Rosstat, Bank of Russia calculations.

Table 8

Macroeconomic indicators
(seasonally adjusted, growth as % of previous period)

	Industrial production[1]	Agriculture	Construction	Freight turnover	Retail trade turnover	Consumer expenditure	Output index of goods and services by key industries	GDP[2]
2015								
January	-2.9	-0.1	-1.9	-0.3	-9.7	-7.2	-1.6	
February	-1.7	0.0	-0.2	0.7	-1.2	-1.0	-1.2	
March	1.9	0.3	-2.2	1.2	-0.3	0.5	0.3	-2.5
April	-0.8	-0.1	-0.5	-1.2	-1.3	-1.1	-1.5	
May	-0.6	0.1	-1.4	-0.6	0.3	0.4	0.4	
June	0.8	0.4	-0.1	0.3	-0.5	-0.3	-0.6	-0.4
July	0.0	-1.1	-2.6	2.1	-0.2	-0.4	0.2	
August	0.6	1.2	-0.3	-0.8	0.1	-0.5	0.0	
September	0.6	0.1	0.4	0.5	-1.3	-0.3	0.9	0.0
October	-0.7	-0.2	-1.2	2.9	-0.3	-0.2	-0.4	
November	0.1	0.3	-0.4	-1.3	-0.6	-0.8	-3.8	
December	0.5	0.2	1.1	-0.2	0.4	-0.3	0.9	-0.1
2016								
January	-1.1	0.2	-1.4	-2.6	-1.6	-0.5	0.1	
February	3.0	0.3	0.3	0.6	-0.8	0.2	0.6	
March	-1.7	0.0	-0.4	0.1	-0.4	-0.8	0.6	-0.1
April	0.0	0.2	-0.7	0.0	-0.2	0.4	-0.1	
May	0.0	0.2	-0.5	-0.6	-1.0	-0.5	-0.3	
June	0.7	0.0	-0.7	1.3	-0.3	-0.1	0.0	0.0
July	-0.4	0.7	0.9	1.8	0.7	0.1	0.4	
August	0.3	-0.2	-0.6	0.2	0.1	0.1	-0.2	
September	-0.5	0.1	-0.8	1.6	0.3	-0.4	0.1	0.1
October	0.6	0.4	0.4	-1.4	-0.9	0.0	0.1	
November	1.1	0.2	-0.2	1.6	-0.4	0.2	-0.3	
December	-1.6	0.1	-1.1	0.5	-1.3	-0.3	0.0	0.2
2017								
January	0.7	0.1	0.0	1.8	1.9	0.2	0.6	
February	-1.5	0.2	-0.7	-0.4	0.2	0.2	…	

[1] Rosstat estimate.
[2] Quarterly data.

Sources: Rosstat, Bank of Russia calculations.

Macroeconomic indicators
(as % of corresponding period of previous year)

	2016	2017			Memo item: 2016
	Total	January	February	January-February	January-February
Output of goods and services by key industries	0.4	2.1	…	…	-2.9[1]
Industrial output	1.3	2.3	-2.7	-0.3	1.5
Agricultural output	4.8	0.6	0.2	0.4	3.6
Construction	-4.3	-2.4	-4.5	-3.5	-5.9
Retail trade turnover	-5.2	-2.3	-2.6	-2.5	-5.5
Household real disposable money income	-5.9	8.1	-4.1	1.0	-5.4
Real wage	0.7	3.1	1.3	2.3	-1.6
Number of unemployed	-0.5	-3.2	-4.6	-3.9	3.3
Unemployment (as % of economically active population)	5.3[2]	5.6	5.6	5.6	5.8

[1] Data for January.

[2] Data as of the end of period.

Sources: Rosstat, Bank of Russia calculations.

Change in Bank of Russia forecasts of GDP[1] growth of Russia's trading partners
(%)

		Forecast of GDP growth in 2017		Memo item: country's share in aggregate GDP of trading partners
		December 2016	March 2017	
Total		1.96	2.03	100.0
1	Germany	1.21	1.28	14.6
2	China	5.92	6.10	10.3
3	Italy	0.45	0.52	9.3
4	Turkey	2.73	2.47	6.9
5	Belarus	-0.65	0.80	5.5
6	Japan	0.45	0.56	5.3
7	Korea, Republic of	2.31	2.23	4.7
8	Belgium	0.90	0.99	4.6
9	Poland	2.89	2.80	4.4
10	United Kingdom	0.86	1.21	4.4
11	Kazakhstan	1.59	1.65	4.2
12	The Netherlands	1.15	1.32	3.3
13	United States	2.17	2.15	3.1
14	France	0.86	0.95	3.1
15	Finland	0.51	0.59	3.1
16	Latvia	2.54	2.61	3.0
17	India	7.28	6.75	1.9
18	Switzerland	1.00	1.18	1.5
19	Czech Republic	2.17	2.22	1.4
20	Hungary	2.34	2.37	1.4
21	Slovakia	2.82	2.89	1.4
22	Lithuania	2.16	2.24	1.3
23	Spain	1.91	2.03	1.3
24	Ukraine	2.22	2.24	0.0

[1] The aggregate GDP growth rate is calculated based on the shares of 24 Russia's trading partners in Russian exports for the period from 2013 to 2015. Previously, the rate was calculated for the period 2010-2014. The share of each country was determined based on the exports to major trading partners. The aggregate GDP forecast excludes the economy of Ukraine and includes the re-exports of Russian energy commodities from the Netherlands.

Source: Bank of Russia.

Table 11

Monetary policy rates in various countries

Country	Policy rate	Current level	Date of latest change	Previous level	Change	Number of rate changes over the past 12 months	Inflation		12-month change, pp
								Current level, %	
Poland	target rate	1.50	04.03.2015	2.00	-0.50	0		2.2	3.10
Hungary	base rate	0.90	24.05.2016	1.05	-0.15	3		2.9	2.00
Czech Republic	repo rate (14 days)	0.05	01.11.2012	0.25	-0.20	0		2.5	1.90
Romania	base rate	1.75	06.05.2015	2.00	-0.25	0		0.2	2.33
Bulgaria	base rate	0.00	01.02.2016	0.01	-0.01	0		1.7	1.70
Serbia	key policy rate	4.00	07.07.2016	4.25	-0.25	1		3.2	0.80
Israel	target overnight rate	0.10	23.02.2015	0.25	-0.15	0		0.4	1.01
Brazil	target rate	12.25	22.02.2017	13.00	-0.75	4		4.8	-5.95
Chile	monetary policy rate	3.25	19.01.2017	3.50	-0.25	1		2.7	-2.10
	lending rate (12 months)	4.35	26.10.2015	4.60	-0.25	0		0.8	-1.00
China	deposit rate (12 months)	1.50	26.10.2015	1.75	-0.25	0			
	required reserve rate	17.00	01.03.2016	17.50	-0.50	0			
	reverse repo rate	6.25	04.10.2016	6.50	-0.25	2		3.7	-2.04
India	repo rate	5.75	04.10.2016	6.00	-0.25	2			
Indonesia	target rate	6.50	16.06.2016	6.75	-0.25	2		3.8	-0.31
Korea, Republic of	base rate	1.25	09.06.2016	1.50	-0.25	1		1.9	1.30
Malaysia	target overnight rate	3.00	13.07.2016	3.25	-0.25	1		3.2	-0.30
Mexico	target rate	6.25	09.02.2017	5.75	0.50	5		4.9	2.25
Philippines	monetary policy rate	3.00	03.06.2016	4.00	-1.00	1		3.3	2.00
Russia	repo auction rate (7 days)	10.00	19.09.2016	10.50	-0.50	2		4.6	-5.20
South Africa	repo rate	7.00	17.03.2016	6.75	0.25	1		6.6	0.40
Thailand	repo rate	1.50	29.04.2015	1.75	-0.25	0		1.4	1.97
Turkey	repo rate (7 days)	8.00	24.11.2016	7.50	0.50	1		10.1	0.55
United States	federal funds rate (upper bound)	1.00	15.03.2017	0.75	0.25	2		2.7	1.30
Euro area	refinancing rate	0.00	10.03.2016	0.05	-0.05	1		2.0	1.70
United Kingdom	base rate	0.25	04.08.2016	0.50	-0.25	1		1.8	1.50
Japan	overnight rate	0.10	19.12.2008	0.30	-0.20	0		0.4	0.50
Canada	target overnight rate	0.50	15.07.2015	0.75	-0.25	0		2.1	0.10
Australia	overnight rate	1.50	02.08.2016	1.75	-0.25	2		1.5	-0.20
New Zealand	overnight rate	1.75	10.11.2016	2.00	-0.25	3		1.3	1.20
Denmark	lending rate	0.05	20.01.2015	0.20	-0.15	0		0.9	0.50
	certificate of deposit rate	-0.65	08.01.2016	-0.75	0.10	0			
Switzerland	3m LIBOR - min	-1.25	15.01.2015	-0.75	-0.50	0		0.6	1.90
	3m LIBOR - max	-0.25	15.01.2015	0.25	-0.50	0			
Sweden	repo rate	-0.50	11.02.2016	-0.35	-0.15	0		1.9	0.67
Norway	key deposit rate	0.50	17.03.2016	0.75	-0.25	1		2.5	-0.40

Note: As of 16 March 2017, changes occurred from the compilation time of the previous Monetary Policy Report issue (22 November 2016) are put in colour.

Source: Bloomberg.

LIST OF BOXES

GLOSSARY

Asset-backed securities (ABS)

Bonds or other securities backed by pooled assets which usually generate predicable cash flows and which are formed by banks or other credit institutions.

Averaging of required reserves

The right of a credit institution to meet reserve requirements set by the Bank of Russia by maintaining a share of required reserves not exceeding the averaging ratio in a correspondent account with the Bank of Russia during a specified period.

Banking sector liquidity

Credit institutions' funds held in correspondent accounts with the Bank of Russia to carry out payment transactions and to comply with the Bank of Russia's reserve requirements.

Bank lending conditions index

A generalised indicator of changes to bank lending conditions, as calculated by the Bank of Russia based on the results of a quarterly survey among leading Russian banks operating in the lending market as follows: (share of banks reporting a significant tightening of lending conditions, as a percentage) + 0.5 x (share of banks reporting a moderate tightening of lending conditions, as a percentage) – 0.5 x (share of banks reporting a moderate easing of lending conditions, as a percentage) – (share of banks reporting a significant easing of lending conditions, as a percentage). Measured in percentage points (pp).

Bank of Russia interest rate corridor (interest rate corridor)

The basis of Bank of Russia interest rate system. The centre of the corridor is set by the Bank of Russia key rate; the upper and lower bounds are rates on overnight standing facilities (deposit facilities and refinancing facilities) symmetric to the key rate.

Bank of Russia key rate

The minimum interest rate at the Bank of Russia 1-week repo auctions and the maximum interest rate at the Bank of Russia 1-week deposit auctions. It is set by the Bank of Russia Board of Directors.

Bank of Russia Lombard List

A list of securities eligible as collateral for Bank of Russia refinancing operations.

Basis point

One hundredth of a percentage point.

Broad money (monetary aggregate M2X)

Total amount of cash in circulation and funds of the Russian Federation residents (non-financial and financial (excluding credit) organisations and households) in settlement, current and other on-demand accounts (including accounts for bank card settlements), time deposits and other types of deposits in the banking system denominated in the currency of the Russian Federation or foreign currency, and interest accrued on them.

Butterfly

An option position including options with the same maturity, whose quotation is calculated according to the formula: BF= (CALL+PUT-2*ATM)/2, where CALL and PUT are implied volatility values for call and put options with the respective deltas, and ATM is an implied volatility value for at-the-money option. This quotation means that the implied distribution of expectations of future exchange rate fluctuations has fatter tails relative to the risk neutral measure.

Carry trade

A strategy in which money is borrowed at a low interest rate in order to invest in higher-yielding assets. This strategy is employed by FX and stock market players to benefit from the positive differentials between active and passive interest rates in different currencies or for different maturities.

CBOE crude oil volatility index

The Chicago Board Options Exchange (CBOE) index calculated by applying the VIX methodology and reflecting the market's expectations of 30-day volatility of crude oil prices.

CDS spread

Premium paid by the CDS buyer to the seller, usually expressed in basis points of the nominal value of the debt and paid with a certain periodicity.

Consumer price index (CPI)

The CPI measures changes over time in the overall price level of goods and services purchased by households for private consumption. This index is calculated by the Federal State Statistics Service as the ratio of the value of a fixed set of goods and services in current prices to the value of the same set of goods and services in prices of a previous (reference) period. The CPI is calculated on the basis of data on the actual structure of consumer spending being therefore one of the key indicators of household living costs.

Core inflation

Inflation being measured as a core consumer price index (CCPI). The difference between the CCPI and the consumer price index (CPI) lies in the CCPI calculation method, which excludes a change in prices for individual goods and services subject to the influence of administrative and seasonal factors (fruit and vegetables, fuel, passenger transportation services, telecommunications services, and the majority of housing and public utility services).

Countercyclical currency

A currency which normally faces appreciation in periods of instability in global markets and/or recession in the global economy. Specifically, this type of currencies includes the US dollar, the Japanese yen, and the Swiss franc.

Covered bonds

Bonds secured by payments on mortgage loans or government debt obligations. The difference between covered bonds and asset-backed securities lies in the fact that covered bonds remain on the issuer's balance sheet after the issue, therefore making the issuer liable for the credit risk on the assets which back the bonds.

Credit default swap (CDS)

An insurance contract protecting from default on reference obligations (sovereign or corporate securities with fixed yields). It is a credit derivative allowing the buyer of the contract to get insured against a certain credit event of the reference obligation issuer by paying an annuity premium (CDS spread) to the insurance seller.

Cross-currency basis swap

Currency interest rate swap which implies an exchange of nominal values and interest payments in different currencies. The price of this swap reflects the premium to one of the floating rates.

Current liquidity deficit/surplus

An excess of banking sector demand for liquidity over the liquidity supply on a given day. A reverse situation, an excess of the liquidity supply over demand on a given day, is current liquidity surplus.

Dollarisation of deposits

A share of deposits denominated in foreign currency in total banking sector deposits.

Factors of banking sector liquidity

Changes in the central bank balance-sheet items affecting banking sector liquidity, but which do not result from central bank liquidity management operations. These factors include changes in cash in circulation, changes in balances of general government accounts with the Bank of Russia, Bank of Russia operations

in the domestic foreign exchange market (excluding operations regulating banking sector liquidity), as well as changes in required reserves deposited by credit institutions in required reserve accounts with the Bank of Russia.

Fiscal stress index

Conceptual approach developed by IMF experts proposes an aggregate index which provides early warning signals of risks. The index is calculated on the basis of the study of the signals produced by three complementary sets of variables: basic fiscal variables, long-term fiscal trends, and asset and liability management (the total of 12 variables). Thresholds are calculated for all variables. By exceeding its threshold, the variable signals an upcoming crisis in the following year. Besides, each variable is assigned signaling power which shows its weight in the fiscal stress index. For more information on the approach see Baldacci E., McHugh J., Petrova I. Measuring Fiscal Vulnerability and Fiscal Stress: A Proposed Set of Indicators. IMF Working Paper, No. 94, 2011 and Baldacci E., Petrova I., Belhocine N., Dobrescu G., Mazraani S. Assessing Fiscal Stress. IMF Working Paper, No. 100, 2011.

Floating exchange rate regime

According to the IMF classification, under the floating exchange rate regime the central bank does not set targets, including operational ones, for the level of, or changes to, the exchange rate, allowing it to be shaped under the impact of market factors. However, the central bank reserves the right to purchase foreign currency to replenish international reserves or to influence the domestic FX market occasionally to smooth out the ruble's exchange rate volatility and prevent its excessive deviations.

Floating interest rate on Bank of Russia operations

An interest rate tied to the Bank of Russia key rate. If the Bank of Russia Board of Directors decides to change the key rate, the interest rate applied to the loans previously provided at a floating interest rate will be adjusted by the change in the key rate with effect from the corresponding date.

Foreign exchange swap

A deal which consists of two legs: one party of the deal initially exchanges a certain amount in domestic or foreign currency for an equivalent amount in another currency provided by the second party of the deal. Then, once the deal term has expired, the parties make a reverse transaction (in the corresponding volumes) at a predetermined rate. Foreign exchange swaps are used by the Bank of Russia to provide credit institutions with refinancing in rubles and foreign currency (US dollars).

Forward rate agreement (FRA)

A forward interest rate agreement on a certain future obligation, according to which the parties are bound, as of the effective date, to compensate for the differences in the amount of interest payments calculated on the basis of the agreed and actual rates and the agreed nominal value.

Funds in general government's accounts

Funds in accounts with the Bank of Russia representing funds of the federal budget, the budgets of constituent territories of the Russian Federation, local budgets, government extra-budgetary funds and extra-budgetary funds of constituent territories of the Russian Federation and local authorities.

Generalised (composite) consumer confidence index

Calculated by the Federal State Statistics Service on the basis of quarterly surveys, as an arithmetical mean value of five indices: occurred and expected changes in personal wealth; occurred and expected changes in the economic situation in Russia; and the favourability of conditions for high-value purchases. Partial indices are calculated by drawing up the balance of respondents' estimates (as a percentage). The balance of estimates is the difference between the sum of shares (as a percentage) of decisively positive and 1/2 of the rather positive answers and the sum of shares (as a percentage) of negative and 1/2 of the rather negative answers. Neutral answers are not taken into account.

Gross credit of the Bank of Russia

Includes loans extended by the Bank of Russia to credit institutions (including banks with revoked licences), overdue loans and overdue interest on loans, funds provided by the Bank of Russia to credit institutions through repos and FX swaps (USD/RUB and EUR/RUB swaps).

Implied volatility

A measure of exchange rate volatility that reflects current market prices of FX options under Black-Scholes model (as a rule, at-the-money).

Inflation-neutral output

Total output in economy which may be produced and allocated without setting grounds for changing the price growth rate. Besides, the volume of inflation-neutral output is not linked to any specific level of inflation, it only signals the existence/absence of conditions for its acceleration/deceleration.

Inflation targeting regime

A monetary policy framework setting that the final target of the central bank is to ensure price stability, i.e. achieving and maintaining sustainably low inflation. Under this regime a quantitative inflation target is set and announced. The central bank is responsible for achieving this target. Typically, under an inflation targeting regime, the monetary policy affects the economy through interest rates. Decisions are made primarily on the basis of economic forecasts and inflation dynamics. An important feature of this regime is regular explanations to the public of decisions adopted by the central bank, which guarantees its accountability and transparency.

Interest rate corridor

See Bank of Russia interest rate corridor.

Macro risk index

An index calculated by Citibank and demonstrating the perception of risk level in the global financial markets by investors. The index is bound between 0 (low risk level) to 1 (high risk level). The index is based on the historical dynamics of emerging market sovereign Eurobond yield spreads to the yield spreads of US treasuries, credit spreads on US corporate bonds, US swap spreads, and implied exchange rate, stock index and interest rate volatility.

Managed floating exchange rate regime

Under the managed floating exchange rate regime the central bank does not interfere in the trends of ruble dynamics which are shaped by fundamental macroeconomic factors. No fixed limits or targets are set for the ruble rate, with the central bank seeking to smooth out exchange rate fluctuations in order to support economic agents' gradual adaptation to changes in external economic environment.

MICEX index

Composite index of the Russian stock market calculated by CJSC MICEX Stock Exchange (hereinafter, the Exchange) based on the ruble prices of trades executed in most highly capitalised liquid securities admitted to trading on the Exchange.

MSCI indices

Group of indices calculated by Morgan Stanley Capital International. These are calculated as indices for individual countries (including Russia) and as global indices for various regions, for developed/emerging markets and 'world' index.

Monetary aggregate M1

Total amount of cash in circulation and funds of the Russian Federation residents (non-financial and financial organisations (excluding credit ones) and households) in settlement, current and other on-demand accounts (including accounts for bank card settlements) opened in the banking system in the currency of the Russian Federation and interest accrued on them.

Monetary policy transmission mechanism

The process of transferring the impulse of monetary policy decisions (i.e. decisions made by a central bank in relation to changes to interest rates on its operations) to the economy as a whole and to price dynamics, in particular. The most important channel of monetary policy transmission is the interest rate channel. The impact of the latter is based on the influence of a central bank policy on changes to the interest rates at which economic agents may deposit and raise funds, and, as a result, on decisions regarding consumption, saving and investment and, thereby, on the aggregate demand, economic activity and inflation.

Money supply

Total amount of funds of the Russian Federation residents (excluding general government and credit institutions). For the purposes of economic analysis various monetary aggregates are calculated (see Monetary aggregate M1, Money supply in the national definition (monetary aggregate M2), and Broad money).

Money supply in the national definition (monetary aggregate M2)

Total amount of cash in circulation and funds of the Russian Federation residents (non-financial and financial (excluding credit) organisations and households) in settlement, current and other on-demand accounts (including accounts for bank card settlements), time deposits and other types of deposits in the banking system denominated in the currency of the Russian Federation and interest accrued on them.

Net credit of the Bank of Russia to credit institutions

Gross credit of the Bank of Russia to credit institutions net of correspondent account balances in the currency of the Russian Federation (including the averaged amount of required reserves) and deposit account balances of credit institutions with the Bank of Russia, investments by credit institutions in Bank of Russia bonds (at prices fixed as of the start of the current year), and credit institutions' claims on the Bank of Russia under the ruble leg of FX swaps (USD/RUB swaps).

Net private capital inflow/outflow

The total balance of private sector operations involving foreign assets and liabilities recorded on the financial account of the balance of payments.

Non-marketable assets eligible as collateral for Bank of Russia loans

Promissory notes and credit claims eligible as collateral for Bank of Russia loans in accordance with Bank of Russia Regulation No. 312-P, dated 12 November 2007, 'On the Procedure for Extending Bank of Russia Loans Secured by Assets or Guarantees to Credit Institutions'.

Non-price bank lending conditions

Bank lending conditions aside from the cost of a loan to the borrower, such as maximum loan amount and lending term, requirements for collateral and the financial standing of the borrower.

Non-tradable sector of the economy

Sector of the economy engaged in electricity, gas and water supply, construction, wholesale and retail trade, motor vehicle and motorcycle maintenance, household goods and personal appliance repairs, hotels and restaurants, transport and communications, financial activity, real estate, leasing and services, including other communal, social and personal services.

Open market operations

Operations carried out on the initiative of a central bank. They include auction-based refinancing and liquidity-absorbing operations (repo auctions, deposit auctions, etc.), as well as purchases and sales of financial assets (government securities, foreign currency, and gold).

Output gap

Deviation of GDP from inflation-neutral output, expressed as a percentage. Characterises the balance between demand and supply and may be regarded as an aggregate indicator of the effect which the demand factors have on inflation. If the actual output is larger than the inflation-neutral output (positive output gap), all else equal, inflation is expected to accelerate. A negative output gap is an indicator of an expected slowdown in price growth.

Outstanding amount on Bank of Russia refinancing operations

Outstanding amount on loans extended by the Bank of Russia to credit institutions against the collateral of securities, non-marketable assets, guarantees, gold, repo operations, and FX swaps (USD/RUB and EUR/RUB swaps).

Overnight index swap (OIS)

An interest rate swap where fixed-rate payments are swapped for floating-rate payments set on the basis of overnight money market rates over a respective period of time.

PMI indices

Indicators of business activity based on company surveys in manufacturing and/or services industries. The PMI index series describe dynamics for the following aspects of business climate: output (or business activity for the services industry), new orders, new export orders, backlogs of work, stocks of finished goods, stocks of purchases, quantity of purchases, suppliers' delivery times, employment, output prices (prices charged for the services industry), input prices, and expectations for activity one year ahead (for the services industry). PMI readings over 50 indicate an expansion of business activity, while readings below 50 suggest a decline.

Procyclical currency

A currency which normally appreciates in periods of global economic growth. Specifically, this category of currencies includes the euro, the Canadian dollar, and the Australian dollar.

Realised volatility

Exchange rate volatility measure calculated on the basis of historical data taken for a given period of time. As a rule, a mean-square deviation of daily logarithmic returns of the exchange rate is assumed to be its realised volatility.

Relative prices

A ratio between CPI subindex and CPI.

Repo operation

A deal which consists of two legs: one party to the deal sells securities to the other party in return for cash, and then, once the deal term has expired, buys them back at a predetermined price. Repos are used by the Bank of Russia to provide credit institutions with liquidity in rubles and foreign currency in exchange for collateral in the form of securities.

Required reserves

Funds maintained by credit institutions in correspondent accounts with the Bank of Russia and accounts to record required reserves in order to fulfill reserve requirements. The latter comprises required reserve ratios and a required reserve averaging ratio.

RGBEY index

RGBEY (Russian Government Bond Effective Yield to Redemption) index reflects an effective yield to redemption of Russian government bonds calculated as an average gross yield to redemption without accounting for bond issue duration.

Risk-neutral measure

A theoretical measure of probability derived from the assumption that the current value of an option is equal to the mathematical expectation of its future payoff discounted at the risk-free rate.

Risk premium on market securities portfolio

Calculated in accordance with the capital asset pricing model as the difference between the yield of a market securities portfolio and the yield of a risk-free asset. The yield of a risk-free asset is, as a rule, taken to be the yield of government securities (for example, OFZ – federal government bonds). Measured in percentage points (pp).

Risk reversal

An option position, whose quotation is calculated as a difference between implied volatility values for call and put options with the respective deltas and same maturities (an option delta is roughly equal to the market participants' estimate of at-the-money option probability). This quotation reflects an asymmetric distribution of expectations of future exchange rate fluctuations relative to the risk-neutral measure.

RTS index

Composite index of the Russian stock market calculated by the Exchange based on the US dollar prices of trades executed in most highly capitalised liquid securities admitted to trading on the Exchange.

Ruble nominal effective exchange rate index

The ruble nominal effective exchange rate index reflects changes in the exchange rate of the ruble against the currencies of Russia's main trading partners. It is calculated as the weighted average change in the nominal exchange rates of the ruble to the currencies of Russia's main trading partners. The weights are

determined according to the foreign trade turnover share of Russia with each of these countries in the total foreign trade turnover of Russia with its main trading partners.

Ruble real effective exchange rate index

Calculated as the weighted average change in real exchange rates of the ruble to the currencies of Russia's main trading partners. The real exchange rate of the ruble to a foreign currency is calculated using the nominal exchange rate of the ruble to the same currency and the ratio of price levels in Russia to those in the corresponding country. When calculating the real effective exchange rate, weights are determined according to the foreign trade turnover share of Russia with each of these countries in the total foreign trade turnover of Russia with its main trading partners. The ruble real effective exchange rate index reflects changes in the competitiveness of Russian goods in comparison to those of Russia's main trading partners.

Shadow banking sector

Financial intermediaries providing credit intermediary services whose activity is not regulated by the banking legislation.

Standing facilities

Operations to provide and absorb liquidity carried out by the Bank of Russia on the initiative of credit institutions.

Structural liquidity deficit/surplus

The state of the banking sector characterised by a stable demand by credit institutions for Bank of Russia liquidity provision operations. The reverse situation, characterised by a stable demand by credit institutions to deposit funds with the Bank of Russia, is a structural liquidity surplus. A calculated level of structural liquidity deficit/surplus is a difference between amounts outstanding on Bank of Russia refinancing and liquidity-absorbing operations.

Structural non-oil and gas primary budget deficit

Budget items that are not dependent on the phase of the business cycle and are determined by general government decisions. It is the overall budget deficit, excluding oil and gas revenues, net interest payments, one-off budget revenues, and other items directly dependent on changes in economic activity.

Terms of foreign trade

Ratio between a country's export price index and import price index.

Total cost of credit

The notion of the 'total cost of credit' was defined by Federal Law No. 353, dated 21 December 2013, 'On Consumer Loans'. Apart from the payments on the principal and interest, the total cost of credit includes creditor's commission fees, payments to third parties, insurance premiums stipulated by related insurance contracts and subject for payment by the borrower under the conditions of a consumer loan agreement.

Tradable sector of economy

Economy sector made up of agriculture, hunting, forestry, fishery, fish farming, mining and quarrying, and manufacturing industries.

Underlying inflation

Inflation indicator cleared of all shocks which are irrelevant for the monetary policy. The underlying inflation indicator used by the Bank of Russia is calculated on the basis of dynamic factor models.

US dollar index (DXY)

The DXY is a weighted geometric mean of the US dollar's value relative to a basket of six foreign currencies (EUR, JPY, GBP, CAD, SEK, CHF).
VIX
Calculated by Chicago Board Options Exchange index of expected volatility of S&P 500 stock index over the next 30-day period. VIX is constructed as a weighted average of premiums of a wide range of prices of put and call options on the S&P 500 index.

ABBREVIATIONS

AHML – Agency for Housing Mortgage Lending

BLC – bank lending conditions

bp – basis points (0.01 pp)

BPM6 – the 6th edition of the IMF's Balance of Payments and International Investment Position Manual

BRICS – a group of five countries: Brazil, Russia, India, China and South Africa

Cbonds-Muni – municipal bond index calculated by Cbonds

CCPI – core consumer price index

CPI – consumer price index

DSR – debt service ratio (the ratio of the cash flow available to pay current debt obligations, including principal and interest, to current income value)

ECB – European Central Bank

EME – emerging market economies

EU – European Union

FAO – Food and Agriculture Organization of the United Nations

FCS – Federal Customs Service

Fed – US Federal Reserve System

FPG – fiscal policy guidelines

GDP – gross domestic product

GFCF – gross fixed capital formation

IBL – interbank loans

IEA – International Energy Agency

IFX–Cbonds – corporate bond yield index

Industrial PPI–Industrial Producer Price Index

inFOM–Institute of the Public Opinion Foundation

MC – management company

MIACR – Moscow Interbank Actual Credit Rate (weighted average rate on interbank loans provided)

MIACR-B – Moscow Interbank Actual Credit Rate-B-Grade (weighted average rate on interbank loans provided to banks with speculative credit rating)

MIACR-IG – Moscow Interbank Actual Credit Rate-Investment Grade (weighted average rate on interbank loans provided to banks with investment-grade rating)

MICEX SE – MICEX Stock Exchange

MPD–Monetary Policy Department of the Bank of Russia

MTVECM, TVECM–Momentum Threshold Vector Error Correction Model, Threshold Vector Error Correction Model

NPF – non-governmental pension fund

OECD – Organisation for Economic Cooperation and Development

OFZ – federal government bonds

OFZ-IN – inflation-indexed federal government bonds

OFZ-PD – permanent coupon-income federal government bonds

OFZ-PK – variable coupon-income federal government bonds

OJSC – open joint-stock company

OPEC – Organisation of the Petroleum Exporting Countries

PJSC – public joint-stock company

PMI – Purchasing Managers' Index

pp – percentage point

PPI – Producer Price Index

QPM – quarterly projection model of the Bank of Russia

REB – Russian Economic Barometer, monthly bulletin

RGBEY – Russian Government Bonds Effective Yield until Redemption (calculated by the Moscow Exchange)

RUONIA – Ruble OverNight Index Average (reference weighted rate of overnight ruble deposits in the Russian interbank bond market, calculated by Cbonds)

SME – small and medium-sized enterprises

SNA – System of National Accounts

TCC – total cost of credit (see the definition in the Glossary)

TVP FAVAR – Time-Varying Parameter Factor-Augmented Vector Auto-Regression

VCIOM – Russian Public Opinion Research Centre

VAT – value added tax

VEB – Vnesheconombank

VECM–Vector Error Correct