



Bank of Russia

The Central Bank of the Russian Federation



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Information  
and Analytical  
Review

**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 on the basis of data as of 11 March 2016.  
Data cut-off date for forecast calculations is 11 March 2016.

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

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# CONTENTS

SUMMARY .....	3
1. MACROECONOMIC CONDITIONS .....	4
2. ECONOMIC OUTLOOK AND KEY RATE DECISION.....	19
ANNEX .....	25
Dynamics of major items in the Russian balance of payments in 2015 Q4.....	25
Balance of payments forecast for 2016-2018.....	27
Economic situation in Russian regions .....	30
Countercyclical charge to capital adequacy ratio (countercyclical capital buffer) .....	32
Changes in the system of monetary policy instruments and other Bank of Russia measures .....	34
Statistical tables.....	36
LIST OF BOXES .....	45
GLOSSARY.....	46
ABBREVIATIONS.....	53



## SUMMARY

*In December 2015 – February 2016, external economic conditions experienced a new round of decline. The developments were close to the risk scenario described in the Monetary Policy Report released in December 2015. Persistent oil glut, gradual increase in Iran's oil supply after the lift of sanctions, and economic growth slowdown in China led to a new oil price drop. Notwithstanding certain elevation in oil prices in early March, the uncertainty of their future dynamics increased. Ruble depreciation on the back of sliding oil prices put pressure on consumer prices encouraging high inflation expectations. Besides, elevated oil prices volatility contributed to lingering uncertainty regarding the scope and nature of the revision of fiscal policy parameters. As a result, inflation risks have grown over the past period, requiring moderately tight monetary policy: in January and March 2016, the Bank of Russia kept the key rate at 11.00% p.a.*

*Despite worsened external conditions and increased uncertainty, the slowdown of key economic activity indicators weakening that emerged in the second half of 2015 remained, with no significant business sentiment deterioration taking place. The floating exchange rate assisted adaptation processes in the economy, helping Russian products sustain competitiveness and encouraging the development of import substitution. Although the ruble depreciation and higher excise duties exerted upward pressure on prices, inflation remained on the downward track. This was partly supported by the moderately tight monetary policy. Seasonally-adjusted monthly inflation slowed down in December 2015 – January 2016, and remained at the January level in February. The annual consumer price growth declined as well, from 15.0% in November 2015 to 8.1% in February 2016. The drop in annual inflation was partly caused by the exclusion of the last year's price hike from the calculation base. Current weekly data show steady inflation reduction trend in the first half of March 2016.*

*Given the expected sustention of excess oil supply in the market until late 2017, the Bank of Russia reviewed oil price assumptions in the macroeconomic forecast for 2016-2018. The baseline scenario implies the average oil price of \$30 per barrel in 2016, gradually rising to \$40 per barrel by 2018. Lower incomes from international economic activities will shape longer economic downturn than outlined in the baseline scenario of the Monetary Policy Report released in December 2015. However, GDP fall will be less dramatic than expected earlier in the December risk scenario because of the completed adaptation of the economy to the new conditions throughout 2015. Economic recovery is expected in 2017-2018 along with a gradual increase in oil prices, improvement of business sentiment, monetary conditions easing and lower debt burden. Quarterly GDP growth rates will become positive at the end of 2016 - early 2017, while the annual GDP growth rates will follow the pattern only in 2018.*

*Weak domestic demand will be the main factor behind the inflation decline in 2016-2017. Slower consumer price growth will also be based on cuts in producer costs, moderate global food price dynamics and tentative decline in inflation expectations. The annual consumer price growth will reduce to 6-7% in 2016, to reach the 4% target by late 2017. To achieve the inflation target, the Bank of Russia's monetary policy may remain moderately tight over a longer period of time than expected. Besides, the key rate level will be determined given the influence of decreasing structural liquidity deficit and possible transition to a structural liquidity surplus as a result of massive Reserve fund expenditures in order to cover the budget deficit.*

*In view of the expected continuation of sanctions against Russia in 2016-2018, the Bank of Russia will provide credit organisations with the possibility of prolongation of their indebtedness on FX refinancing instruments during the forecast period. However, the demand for these operations may be less than projected.*

# 1. MACROECONOMIC CONDITIONS

In December 2015 – February 2016, the macroeconomic climate in Russia was influenced by external conditions largely in line with the risk scenario examined in the previous Monetary Policy Report (hereinafter, the Report)<sup>1</sup>.

Foreign trade terms for the Russian economy once again deteriorated and were less favourable than anticipated in the baseline variant of the Bank of Russia's forecast. In December 2015, the steady reduction in global oil prices, which had taken place in the previous few months, rapidly picked up: the average price of Urals crude dropped from \$42.4 per barrel in November to \$36.8 per barrel in December 2015 and to \$29.9 per barrel in January-February 2016. Global prices for other types of commodities exported by Russia generally fell or stabilised at the low levels reached by the end of autumn 2015, corresponding to all-time lows (Chart 1.1).

Factors such as growing concerns regarding slowing growth in the Chinese economy, the extent of the impact of this slowdown on other countries, and the persistently high level of supply and stocks in global commodity markets (Chart 1.2), among other things, prevented global energy prices from stabilising at higher levels in line with the

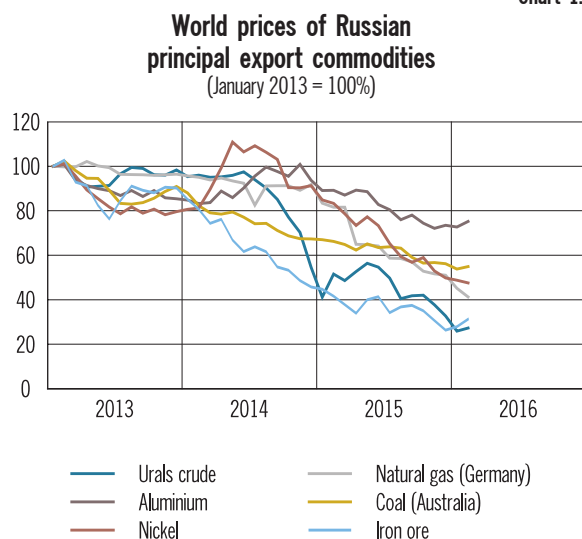
Report's baseline scenario. Moreover, the scale of the oil supply glut was adjusted to account for increased exports from Iran following the lifting of the EU and US sanctions on 16 January 2016 (most market participants had previously expected that the sanctions would be removed and Iranian oil would return to Western markets later in the year). According to IEA estimates<sup>2</sup> and the median estimate of analysts surveyed by the information agency Bloomberg<sup>3</sup>, the growth in oil supply to the global market due to the increase in supplies from Iran will be on average 400,000 barrels per day in 2016. This will boost competition in the European export market, a key market for Russia. Prior to the sanctions being imposed, Iran exported roughly 600,000 barrels of oil per day to Europe (in 2014, supplies from Russia were roughly 3 million barrels per day).

On the other hand, news that investment in the oil industry has continued to fall and that Russia has agreed with a number of OPEC countries to restrict oil production, together with the slight weakening of the US dollar, helped buoy prices at the end of January–February 2016.

Business activity indicators in the global economy at the end of 2015 – start of 2016 remained mixed in the absence of clear 'points of growth'. As before, the greatest concerns were evoked by the growth prospects of the Chinese economy and other EMEs. The economic activity indicators for several large developed countries in particular in the euro area, which is Russia's key trading partner, were more stable and remained relatively high in comparison with recent years (Chart 1.3).

Overall, according to Bank of Russia estimates, at the end of 2015, the aggregate GDP growth of Russia's trading partners was close to the 2014 level, slightly over 2%<sup>4</sup>. In these conditions, demand for Russian exports, including energy commodities, remained stable. At the end of 2015, the exports

Chart 1.1



Sources: IMF, Reuters.

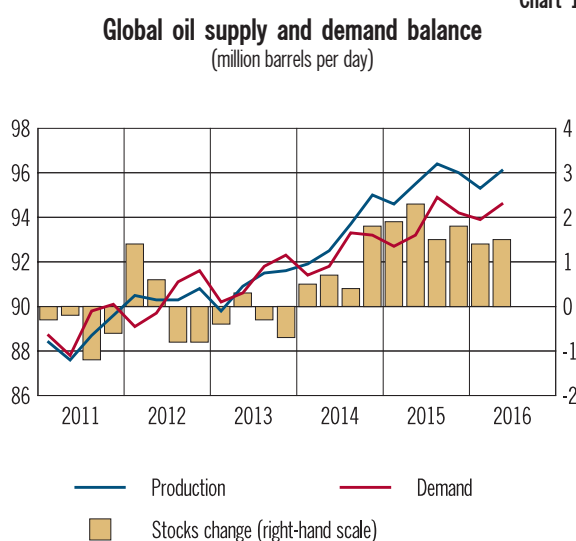
<sup>1</sup> Monetary Policy Report No. 4 (12), December 2015.

<sup>2</sup> See the Abbreviations.

<sup>3</sup> The survey was carried out in January 2016.

<sup>4</sup> See Table 10 of 'Statistical tables' in the Annex.

Chart 1.2



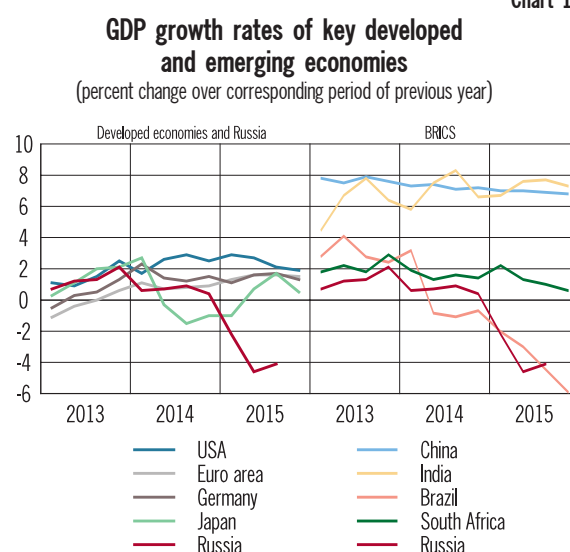
Source: US Energy Information Administration.

of goods and services rose by 3.1% in real terms, which was slightly above the forecast presented in the Report. In addition, latest foreign trade data used by the FCS<sup>5</sup> of Russia and indirect current indicators (specifically, pipeline turnover and business activity in the mining industry) suggest that the upward trend in exports will continue at the start of 2016.

Amid moderate economic activity and falling global commodity prices, inflation remained relatively subdued or increased negligibly in the majority of Russia's trading partners in December 2015 – February 2016 (Chart 1.4). Global prices for most food products continued to fall and are still far below the levels of the previous year. This year, weather-related harvest risks, especially due to El Niño<sup>6</sup> effect, remain, but, according to estimates by experts, their potential impact on global prices will be minor. The moderate external price dynamics will continue to have a restraining effect on internal inflation, but this effect will in part be restricted by the embargo on imports of a number of goods.

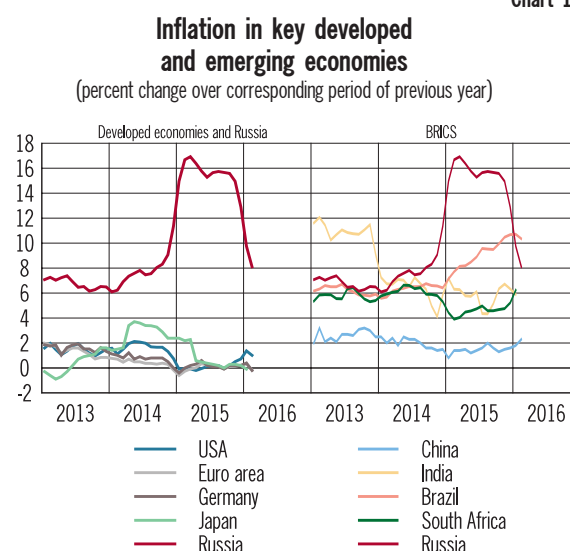
In the context of the low inflationary pressure and weak recovery in demand, the majority of central banks around the world continued to implement a relaxed monetary policy. The 0.25 pp increase in the US Fed's interest rates in December 2015 did not significantly impact global financial conditions

Chart 1.3



Sources: national statistics agencies, Bloomberg.

Chart 1.4



Sources: national statistics agencies, Bloomberg.

as the policy tightening was minor and expected. In view of Fed officials' recent statements mentioning persistent signs of unstable growth in the US economy and instability in global financial markets, further rate increases can be expected to be even more gradual than previously anticipated.

Despite relatively easy monetary conditions in the majority of countries, negative trends dominated the global financial markets, and also commodity markets. Volatility in global stock indices and the yields of major countries' sovereign bonds were seen to intensify along with risk premiums for EMEs. One factor heightening investors' sensitivity to the risk in global markets was driven by escalating problems in the European banking sector, apart from the reassessment of China's economic outlook

<sup>5</sup> See the Abbreviations.

<sup>6</sup> A natural phenomenon associated with fluctuations in water surface temperatures in the equatorial Pacific. According to FAO estimates, this phenomenon will continue to be very active in the first half of 2016.

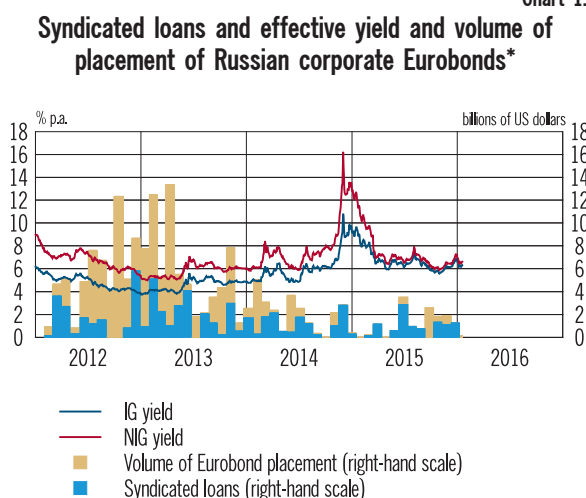


Chart 1.5



\* Average CDS spread for emerging economies is based on the data for Brazil, China, Turkey, Mexico, Malaysia, Poland, Hungary, etc.  
Sources: Bloomberg, Bank of Russia calculations.

Chart 1.6

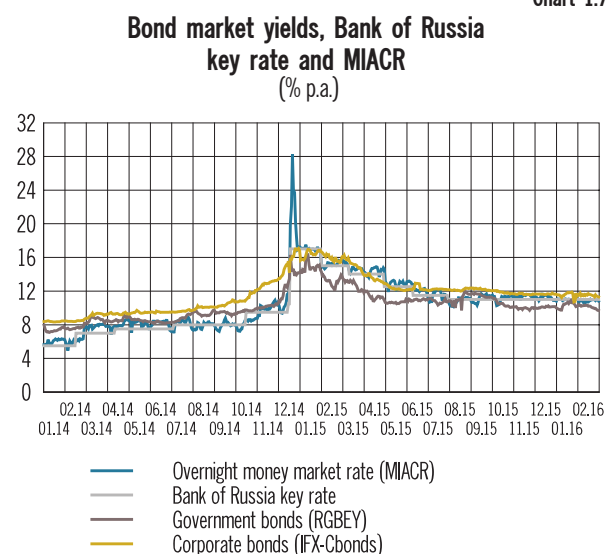


\* IG and NIG yield and duration are calculated on the basis of indexed portfolio of Eurobonds with investment-grade and non-investment speculative ratings respectively.  
Source: Cbonds.ru news agency.

and some uncertainty about the future path of the tightening in US monetary policy. In view of this, external lending conditions for Russian business and banks were relatively unfavourable and even became somewhat stricter (Charts 1.5, 1.6). Raising funds in foreign markets continued to be hampered by the external financial sanctions. Credit premiums for Russian borrowers surged at end-2015 – early 2016 (Chart 1.5), largely on account of the change in oil prices and deteriorating investor assessments of the overall EME growth outlook.

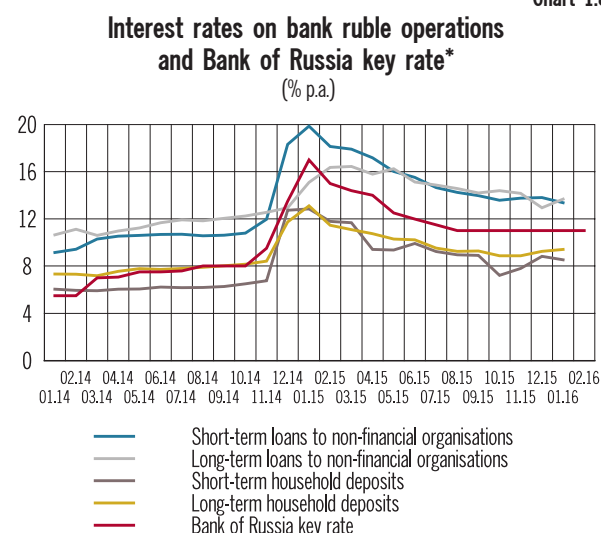
In 2016 Q1-Q2, current external trends are generally expected to remain unchanged: moderate growth in the global economy, low external inflationary pressure, and elevated volatility in global financial markets coupled by relatively high risk-sensitivity among investors. In these conditions, the

Chart 1.7



Sources: MICEX SE, Bank of Russia.

Chart 1.8



\* As of 17 March 2016.  
Sources: MICEX SE, Bank of Russia.

Bank of Russia believes the average price for Urals crude will most likely be around \$30 per barrel in the first half of 2016.

These unfavourable changes in external conditions had a downside drag on the situation in the Russian financial markets in December 2015 – early 2016, primarily leading to a further depreciation of the ruble and a slight increase in stock market volatility. At the same time, persisting moderate-to-tight monetary policy and last year's adaptation among economic agents to heightened external uncertainty and the floating exchange rate helped maintain relative stability in the financial sector as a whole.

The dynamics of the real exchange rate were largely shaped by changes in the terms of trade for the Russian economy. However, the extent of the



ruble's depreciation during this period, according to Bank of Russia estimates, was slightly higher than fundamental values, reflecting market participants' increased anxieties driven by their perception of risks in the global economy. The real effective exchange rate of the ruble against other foreign currencies dropped by 5.8% in December 2015 and again by 6.4% in January 2016.

However, Russian companies and households responded rather mildly to this reduction in the ruble exchange rate. The amount of household transactions involving FX cash remained fairly stable at a low level. Furthermore, no growth in demand for foreign financial assets was observed (see 'Balance of payments' in the Annex). The previous slight increase in household and corporate deposit dollarisation figures was largely down to the revaluation of foreign currency deposits.

Economic agents' sustained propensity to save in rubles was supported by relatively high interest

rates on ruble investments amid moderate-to-tight monetary policy. In January 2016, the Bank of Russia key rate was left unchanged, primarily to keep in check inflation risks which had increased somewhat, in part due to external factors. Set against that, interest rates on the banking sector's lending and deposit operations, as well as bond market yields, remained generally stable (Charts 1.7, 1.8).

Non-price bank lending conditions, assessed based on the outcome of the survey of credit institutions by the Bank of Russia, preserved mixed trends in 2015 Q4: for the most part, household lending conditions relaxed, while in the corporate sector conditions tightened slightly, likely due to the downturn in the solvency of borrowing companies. The maximum tightening was observed for key non-price conditions (requirements for the financial standing of borrowers, loan collateral, and the

### Changes in prudential regulation and conditions for monetary policy implementation

In recent years, many central banks have strived to consider the impact of changes in prudential regulation on credit institutions' activities when making decisions on their key rates and other monetary policy measures. By studying the channels through which prudential policy changes affect the implementation of monetary policy, they assess the changes' likely impact on the interbank market, central bank operations, transmission mechanism, and financial market evolution.

A joint paper by the Committee on the Global Financial System and the Markets Committee of the Bank for International Settlements, entitled 'Regulatory Change and Monetary Policy'<sup>1</sup>, presents the results of a study of the impact of Basel III's key components on monetary policy. The authors of this research used surveys of credit institutions and other financial market participants to evaluate the impact. The results of the study show that new regulatory requirements may lead to changes in financial market participants' behaviour in transactions with the central bank and in the money market. Central banks should assess the extent to which these changes could be significant in the national context and, where necessary, adapt the parameters of their monetary policy instruments to the new conditions.

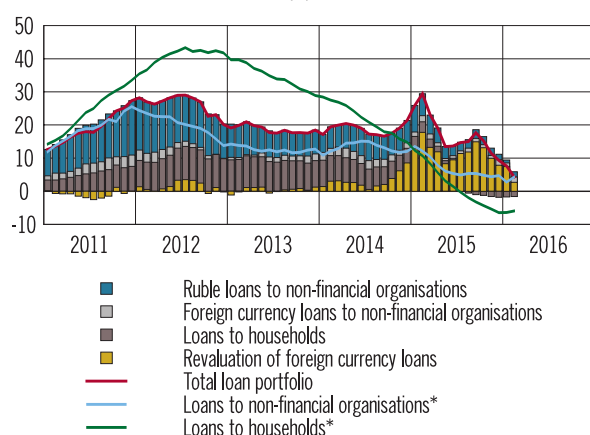
On 1 January 2016, the changes prepared by the Bank of Russia to bring Russian prudential banking regulation in line with the standards established by the Basel Committee on Banking Supervision documents entered into force. In particular, when calculating capital adequacy requirements, risk weights have been raised for credit claims on the Russian Federation in foreign currency and for investment in securities which are securitisation instruments. It is also now possible to apply a lower risk weight for secured credit claims only when the currency of the claim and the currency of the collateral coincide, including for repos. Requirements regarding sources of capital were also clarified in order to exclude from the calculation banks' and financial institutions' counter investments in one another's capital, and capital charges were introduced (see 'Countercyclical charge to capital adequacy ratio' in the Annex). At the same time, the capital adequacy requirements for common equity Tier 1 (CET1) ratio and total capital ratio for banks were brought in line with the levels stipulated in the Basel standards.

According to Bank of Russia estimates, the combined effect of these regulatory changes (taking into account the reduction in the minimum capital adequacy requirements for CET1 and for total bank capital) will not have a negative impact on banks' ability to increase their credit portfolio and is viewed as neutral from a monetary policy perspective.

<sup>1</sup> BIS, Paper No. 54 'Regulatory change and monetary policy', 28 April 2015.

Chart 1.9

### Contribution of various components to the annual growth rate of banks' loan portfolio (%)



\* Adjusted for foreign currency revaluation.

Source: Bank of Russia.

range of lending programmes) for major corporate borrowers.

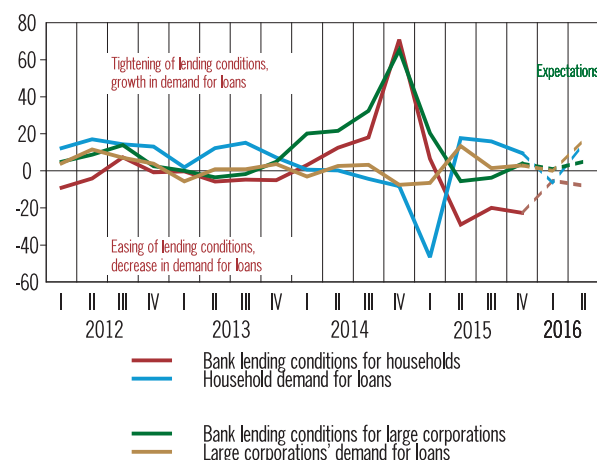
At the end of 2015 and start of 2016, monthly and annual growth in corporate lending remained comparatively low at the level witnessed in 2015 Q3 (Chart 1.9). The relatively weak demand for credit displayed by the real sector of the economy was shaped by the ongoing moderate-to-tight lending conditions and rather high debt burden. The further increase in the debt burden at end-2015 – early 2016 was in part linked to the exchange rate revaluation of previously accumulated liabilities denominated in foreign currency amid the ruble depreciation and the persistent slowdown in the growth of economy's nominal income. Against this backdrop, credit risks soared. By the start of February 2016, overdue loans exceeded the 2010 peak level.

In 2016 Q1-Q2, banks expect changes in price and non-price bank lending conditions to be moderate. Besides, banks assess the growth outlook of demand for loans to be reasonably positive: after a slight fall in 2016 Q1, which was generally in line with traditional seasonal variation at the start of the year, demand for loans both from households and business is expected to pick up (Chart 1.10).

The ongoing deterioration of bank asset quality and associated allocations to reserves put pressure on banks' capital formation, which was another factor underpinning their conservative lending policy. At the same time, the recapitalisation of banks by shareholders and the state continued to support the banking sector. In addition, by the end of 2015, the banks' net interest income almost

Chart 1.10

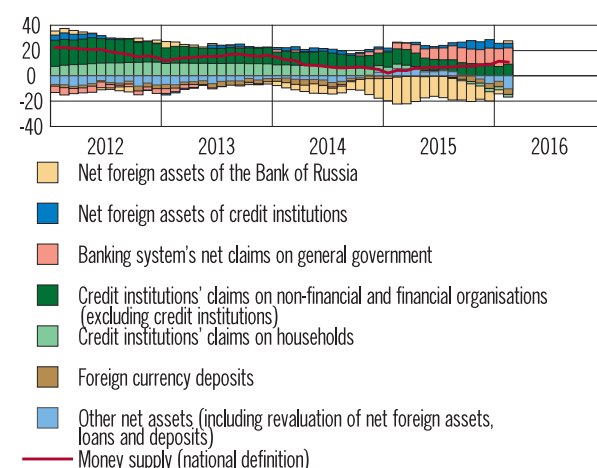
### Lending conditions and demand for loans indices (percentage points)



Source: Bank of Russia.

Chart 1.11

### Sources of money supply (national definition) (annual growth, %)

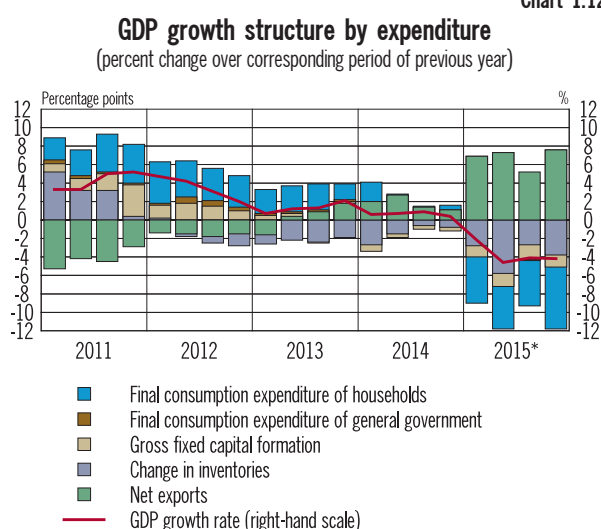


Source: Bank of Russia.

returned to the level observed prior to the key rate hike in December 2014, which will create further conditions for an improvement in financial results and, in turn, banking sector capital.

At end-2015 – early 2016, the Bank of Russia pursued the supervisory policy aimed at reducing banking sector risks and consisting, among other things, of measures to introduce the international standards established by the Basel Committee on Banking Supervision documents (see Box 'Changes in prudential regulation and conditions for monetary policy implementation'). Once implemented, these changes should set conditions to continue the stable growth of the banking sector and, according to Bank of Russia estimates, will not have a restraining effect on banks' lending capacity.

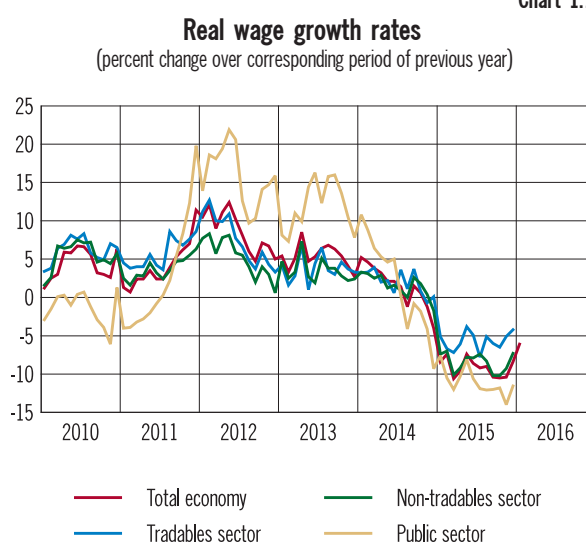
Chart 1.12



\* 2015 Q4 – Bank of Russia estimate.

Sources: Rosstat, Bank of Russia calculations.

Chart 1.13



Sources: Rosstat, Bank of Russia calculations.

Despite the slump in lending growth rates, money supply growth picked up slightly (Chart 1.11). Increase in the net credit of general government, amid the use of the Reserve Fund to finance a large budget deficit in 2015 (see Box 'Fiscal policy'),

made a further positive contribution to money supply growth.

In view of the persistent and relatively tight internal financial conditions and moderately negative impact of external factors, economic

## Fiscal policy

According to the Russian Treasury, in 2015 the federal budget system deficit was 2.8 trillion, or 3.5% of GDP, an increase of 2.4 pp compared with 2014. The federal budget deficit was 2.0 trillion, or 2.4% of GDP, an increase of 2.0 pp compared with 2014. The budget deficit was primarily funded by the Reserve Fund spending totalling 2.6 trillion.

In 2015, the federal budget system expenditures grew slower than the level of inflation (by 7.7% in nominal terms) and was 29.3 trillion or 36.4% of GDP (in 2014, 35.4% of GDP). The budget system income in 2015 remained virtually at 2014 levels in nominal terms totalling 26.5 trillion or 32.9% of GDP (in 2014, 34.4% of GDP). The fall in oil and gas revenue by 2.3 pp relative to GDP was partially offset by an increase in non-oil and gas revenue by 0.8 pp relative to GDP, in part through growth in profit tax receipts (amid continuing favourable corporate performance in the non-financial sector (see Box 'The financial standing of organisations'), value-added tax receipts and social insurance contributions. Considering the stability of the non-oil and gas revenue in the budget, the share of oil and gas revenue in the budget system shrank notably (from 27.8% in 2014 to 22.1%), while the level of the non-oil and gas primary deficit remained stable at 10.0% of GDP.

In January 2016, the federal and consolidated budgets were run at a significant surplus, which is in line with the traditional seasonal variation of previous years (in January 2015, the situation was atypical: the rapid spending caused the federal and consolidated budgets to operate at a deficit).

The conservative nature of fiscal policy is manifested in the cautious approach to budget spending amid the further decline in oil and gas revenue caused by falling oil prices at end-2015 – early 2016. In 2016 Q2, budget system parameters are expected to be adjusted to account for the deteriorating macroeconomic conditions. These changes should be aimed primarily at reducing and rebalancing budget spending.

According to Bank of Russia estimates, in 2015, in view of the increase in budget spending, in part as a result of anti-crisis measures and investment of a portion of National Wealth Fund assets in the economy, the fiscal policy's contribution to aggregate demand was positive at a little over 0.5 pp. In 2016, with the assumed reduction in budget spending and a further fall in income, this factor's contribution will more than likely be negligible or slightly negative. Moreover, the current and proposed conservative public-sector wage and social security indexation policy should have a further moderating impact on inflation expectations, thereby reducing the potential inflationary effect of the growing budget deficit.

activity in Russia at end-2015 – early 2016 stabilised at a low level. According to estimates, in 2015 Q4, the fall in GDP was 4.2% year on year, compared to 4.1% registered in the previous quarter. At end-2015, GDP had fallen overall by 3.7% in real terms (Chart 1.12), in line with the baseline scenario set out in the Report.

At the start of 2016, the economy continued to adapt to the long-term deterioration in external conditions and elevated uncertainty. The labour market adapted primarily through a fall in real wages (Chart 1.13). However, unemployment remained stable, as adjusted for seasonality and labour force utilisation.

Nominal wage growth in December 2015 – January 2016 stabilised at all-time lows – roughly 3% compared with the corresponding period of

the previous year. However, the highest rates of growth in nominal wages (compared with previous years) were observed in the tradable sector of the economy, which could cause labour resources to flow to this sector. This is indirectly confirmed by this sector's low contribution to the reduction in job turnover (Chart 1.14). The greatest reduction in nominal wage growth was seen in budget-financed industries and in services sectors.

Considering both the shortage of available labour resources, largely down to demographic factors, and reduction in new job vacancies in the labour market, we can expect low nominal wage growth in the coming quarters amid relatively stable employment in the economy. These differences in wage dynamics in different sectors of the economy will likely continue and could bring about a further

Table 1.1

## Labour market

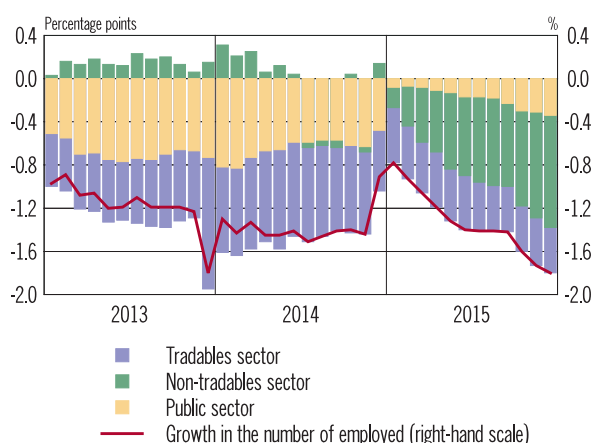
Indicators	2014				2015			
	I	II	III	IV	I	II	III	IV
<b>Employment and unemployment (seasonally adjusted)</b>								
Unemployment rate, %	4.9	5.2	5.3	5.2	5.2	5.8	5.6	5.7
Employed to unemployed ratio	18.8	18.2	18.3	18.3	18	16.3	16.9	16.6
PMI Composite Employment Index, points	48.2	47.4	48.2	46.6	44.8	46	47.4	45.9
<b>Wages (as %, year-on-year)</b>								
Nominal wages	11.1	10.2	8.3	7.7	5.7	5.9	4.7	2.6
Real wages	4.4	2.4	0.6	-1.7	-9.0	-8.5	-9.5	-10.4
Wage arrears	6.2	5.7	-11.9	-10.2	7.9	22.6	38.6	55.9
<b>Part-time employment</b>								
<b>Number of part-time employees (as % of previous period, seasonally adjusted)</b>								
Total	-2.0	-0.1	2.7	0.8	0.0	2.8	0.6	2.6
Part-time employment	7.8	-4.2	-3.4	4.6	11.9	2.7	-3.5	3.8
Part-time employment on employer's initiative	12.8	-0.6	-8.1	12.5	16.2	24.1	-3.5	-6.4
Part-time employment upon mutual agreement	-1.5	2.6	0.3	1.9	3.1	1.9	3.8	4.2
Idle employees	-1.4	-0.5	12.7	-9.3	5.0	-0.6	-2.4	5.2
Unpaid leave	-1.8	-0.8	2.8	0.6	-1.6	2.6	-0.1	1.2
<b>Part-time employees, as % of headcount</b>								
Total	9.0	9.5	10.4	10.3	9.4	10.4	11.0	11.0
Part-time employment	2.2	2.1	2.0	2.2	2.4	2.5	2.4	2.5
Part-time employment on employer's initiative	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.4
Part-time employment upon mutual agreement	1.9	1.8	1.8	1.9	2.0	2.1	2.0	2.1
Idle employees	0.7	0.6	0.6	0.8	0.8	0.7	0.5	0.9
Unpaid leave	6.1	6.8	7.8	7.3	6.2	7.2	8.1	7.6
<b>Alternative indicators of part-time employment</b>								
Average working hours per employee (year-on-year)	0.3	0.4	0.2	-0.1	-0.3	-0.4	-0.5	
Labour force utilisation in industrial production (normal level = 100)	88	87	89	86	82	87	88	88

Change compared with previous 12 months:

- situation improved (more than 1 standard deviation)
- situation improved (less than 1 standard deviation)
- situation remains unchanged ( $\pm 0.15$  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.

**Chart 1.14**  
**Growth in the number of employed by economy sector**  
(excluding small businesses, percent change over  
corresponding period of previous year)



Sources: Rosstat, Bank of Russia calculations.

redistribution of resources, and also level out income and labour productivity dynamics in the economy.

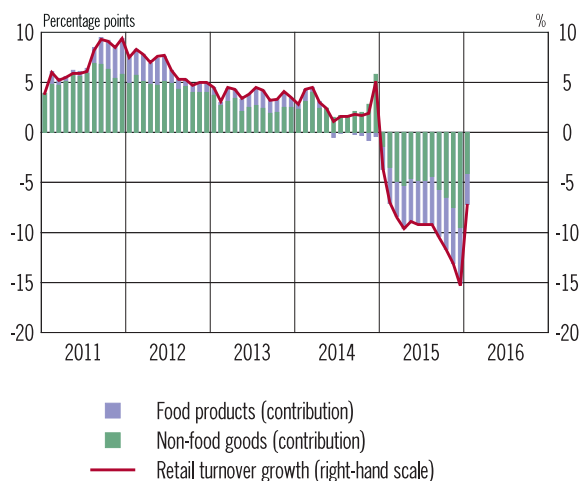
The fall in real household income continued to shape weak consumer demand dynamics. The reduction in household final consumption expenditure was 10.1% at the end of 2015. An additional factor which held back consumer demand was an increase in the household savings rate<sup>7</sup> (from 7.8% in 2014 to 15.8% in 2015) in the situation of uncertainty about the future and persistent high interest rates on ruble-denominated loans and deposits. Survey data also confirm that households maintained a conservative approach to managing their funds: according to survey data from inFOM<sup>8</sup>, more than half of respondents demonstrated propensity to save spare funds.

In December 2015 – January 2016, the fall in monthly retail sales (seasonally adjusted) continued, but the rate of this decline was slightly lower than the comparable figures for previous months. At the same time, the low base effect caused a marked annualised slowdown in retail turnover's decline to 7.3% in January 2016 (in November and December 2015, 13.1% and 15.3% respectively) (Chart 1.15).

<sup>7</sup> Savings include growth (drop) in deposits, acquisition of securities, changes in funds in the accounts of individual entrepreneurs, changes in outstanding amounts on loans, purchasing of real estate, and purchasing of livestock and poultry by households. The savings rate is the ratio of savings to household disposable income.

<sup>8</sup> See the Monetary Policy section on the Bank of Russia's website.

**Chart 1.15**  
**Retail turnover**  
(of corresponding period of previous year)



Sources: Rosstat, Bank of Russia calculations.

In 2016 Q1, consumer demand is expected to remain relatively weak, but the annualised rate of decline in household final consumption expenditure will continue to slow to 5.5–6.5%, in part due to the low base effect.

It is worth noting that the contraction of consumer demand was accompanied by a rapid fall in imports. Thus, import substitution for consumer goods continued, as shown by the fall in the share of imported goods in retail trade turnover. Among other things, the impact of the ruble's depreciation at end-2015 – early 2016, leading to the more competitive pricing of Russian goods, will help continue this trend in the first half of 2016.

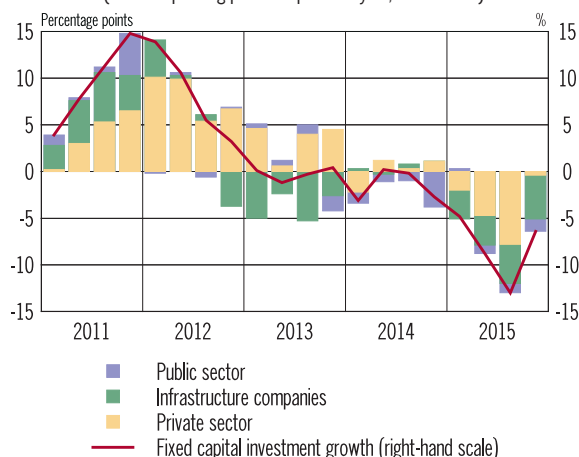
Investment demand also remained weak in view of the ongoing high economic uncertainty, moderate-to-tight lending conditions and high debt burden among many companies. The reduction in gross formation (including inventories dynamics) was 18.3% at the end of 2015. In 2015 Q4, fixed capital investment (seasonally adjusted) stabilised at a low level, indicating that the most acute phase of the investment crisis had passed. The annual rate of decline, adjusted by low base effect, fell significantly – to 6.4% from 13.0% in Q3. Infrastructure companies continued to make a significant contribution to the fall in fixed capital investment (Chart 1.16). Stable negative investment dynamics persisted in transport and communications, electricity, gas and water production and distribution, and manufacturing industries. A slight positive contribution to the change in overall investment figures in Q4 came



Chart 1.16

### Fixed capital investment by public, private sector and infrastructure companies

(of corresponding period of previous year, contribution)

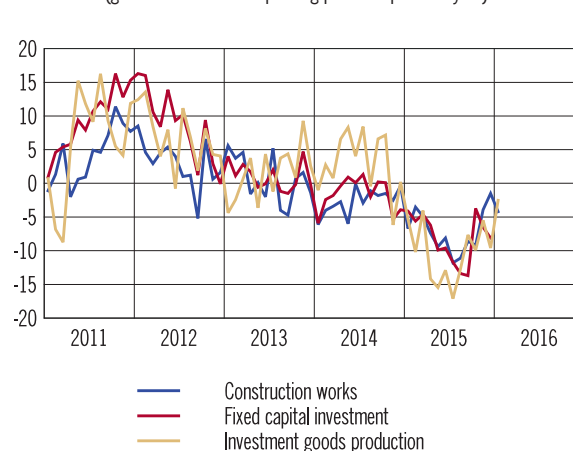


Sources: Rosstat, Bank of Russia calculations.

Chart 1.18

### Fixed capital investment, construction works and investment goods production

(growth as % of corresponding period of previous year)

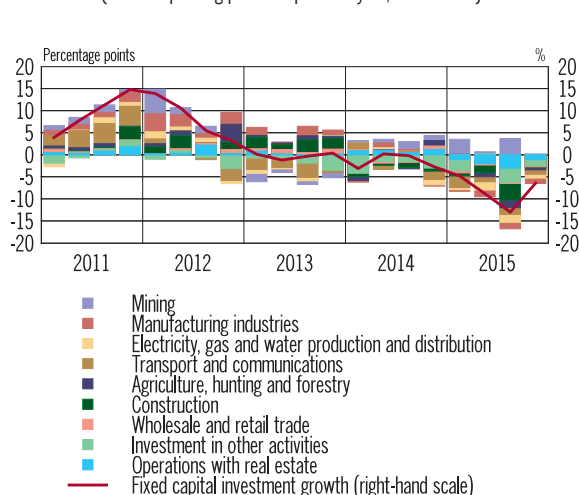


Sources: Rosstat, Bank of Russia calculations.

Chart 1.17

### Fixed capital investment by activity type

(of corresponding period of previous year, contribution)



Sources: Rosstat, Bank of Russia calculations.

from mining companies, though the size of this contribution was significantly lower than in the previous quarter (Chart 1.17).

According to preliminary estimates<sup>9</sup>, the year-on-year fall in fixed capital investment continued to slow in early 2016 relative to the second half of the previous year. This is reflected in indirect indicators of investment demand: growth in construction work, including residential, and the output of capital goods (Chart 1.18). The improvement in year-on-year figures in the first half of 2016 will primarily be the

result of the low base effect. No significant changes to the current dynamics are expected in the context of the lingering effects of relatively unfavourable external factors, internal demand-side restrictions, and moderately tight lending conditions. According to Bank of Russia estimates, in 2016 Q1, the year-on-year reduction in fixed capital investment will be 5–7%.

The fall in inventories, which made a significant negative contribution to GDP dynamics in 2015, will also continue to slow. Inventories are already at a relatively low level in view of the fact that their adjustments have been evolving for more than three years, driven by expectations that demand growth would slow down.

Weak consumer and investment demand continued to restrict production activity. However, industrial output was supported by stable growth in export operations and internal demand partially switching over to domestically produced goods.

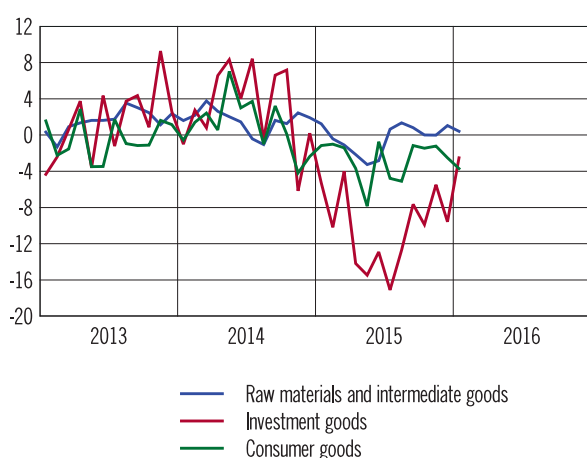
At end-2015, industrial production fell by 3.4% and in January 2016 – by 2.7% (on January 2015). In January 2016, the overall trends of the previous year persisted: mining production showed weak positive growth, electricity, gas and water production stagnated and manufacturing output fell. However, a number of manufacturing sectors showed positive dynamics. External demand and import substitution caused relatively weak growth in the output of raw materials and intermediate materials (Chart 1.19). In this sector, apart from the mining industry, the chemical industry and production of rubber goods also showed positive

<sup>9</sup> Pursuant to Russian Federation Government Directive No. 1061-R, dated 9 June 2015, on amending the Federal Plan for statistical work, the publication of monthly data on investments in non-financial assets has been repealed from 1 January 2016.

Chart 1.19

### Decomposition of industrial output

(growth as % of corresponding period of previous year)

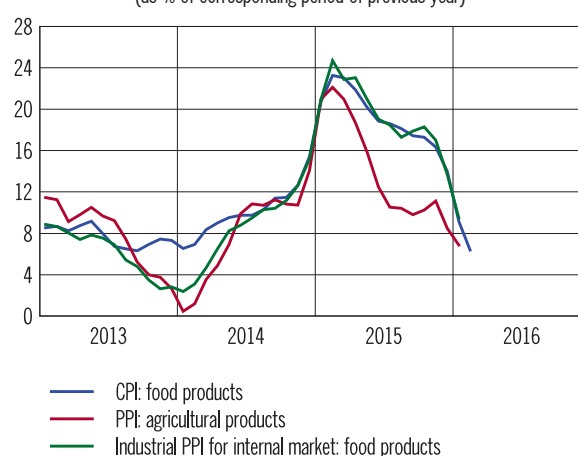


Sources: Rosstat, Bank of Russia calculations.

Chart 1.20

### Growth in producer and consumer prices for food products

(as % of corresponding period of previous year)



Source: Rosstat.

dynamics (see Box 'Analysis of growth factors in certain manufacturing industries'). Annual growth in the food industry is still positive. However, on the whole, the output of goods driven by consumer and investment demand fell (seasonally adjusted). The persistent high heterogeneity in production activity dynamics, specifically in the manufacturing industry, was reflected in the expanded spread of economic growth indicators by region (see 'Economic situation in Russian regions' in the Annex), which could intensify risks posed to the stability of overall economic growth in future.

In view of the economic activity trends noted above, in 2016 Q1 the Bank of Russia forecasts GDP to fall by 1.7–2.5%, which is slightly below the estimates made in December 2015 (1–2% in the baseline scenario). In 2016 Q2, the fall in GDP will continue to slow to 0.3–1.8% compared with the corresponding period of the previous year. As such, the short-term GDP forecast remains relatively stable, despite the downturn in external conditions. This stability is determined by the following factors.

First, a further adjustment in internal demand is expected due to the ruble exchange rate's flexible response to the deterioration in the terms of trade, which supports Russian products' competitiveness and growth in import substitution. Second, despite the fall in oil prices, given the expected overall stable growth of the global economy, stable growth in external demand for Russian exports is assumed to remain at 2–5% year on year. Third, despite the ruble's depreciation relative to 2015, a more restrained inflationary response is forecast (for more details, see below), which will curb the fall in real income and, accordingly, in consumption. Fourth, the absence of any significant negative changes in economic agents' sentiment in response to the deterioration in the external climate means that we can expect a less significant negative response from investment and output than in the previous episode (at the start of 2015).

At end-2015 – early 2016, downward price trends in the global energy, food, and agricultural raw materials markets, further reduction in internal

## The financial standing of organisations

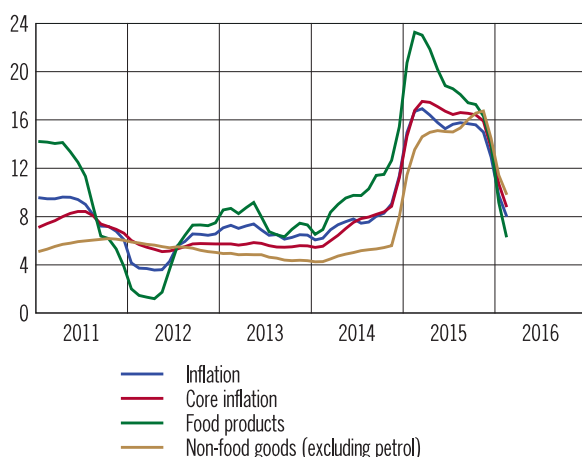
In 2015, the total positive financial result (profit minus loss) of organisations at current prices was 8,422 billion, 53.1% higher than the figure for 2014. Among key industries, net profit rose the most in transport and communications (by a factor of 2.1) and in manufacturing (by 64.8%).

This growth in the total positive financial result was buoyed by cost-cutting measures adopted by businesses in response to intensifying demand-side restrictions and worsening borrowing conditions. During nine months of 2015, operational performance indicators (return on sales, return on assets) were higher than in 2013–2014. In part, this high growth in net profit was shaped by the low base used for comparison: in 2014, it shrank by 9.1% compared with 2013, largely due to the deterioration in external economic conditions in the second half of the year.



Chart 1.21

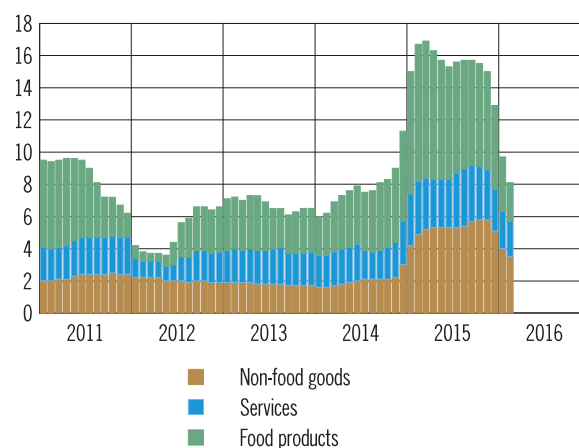
### Prices of consumer goods and services (as % of corresponding period of previous year)



Sources: Rosstat, Bank of Russia calculations.

Chart 1.22

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



Sources: Rosstat, Bank of Russia calculations.

demand, and measures adopted by enterprises to curb the growth in spending (including on wages) had a marked impact on price processes in the Russian economy (Charts 1.20–1.22). In particular, the cost-side pressure on consumer prices decreased: the fall in annual producer price growth continued in industry, agricultural output, and freight transportation tariffs. In January 2016, the annual growth in producer prices in these areas ranged from 6.9% to 8.2% (in December 2015, the range was 8.5–11.5%) (Chart 1.20).

However, the deterioration in the external economic climate over this period was accompanied by acceleration in the weakening of the ruble, which pushed prices upwards. Nonetheless, according to estimates, monthly seasonally-adjusted inflation in January 2016 continued the fall seen since October 2015, and in February inflation remained at January levels. This points to the dominance of demand-side restrictions (see Box 'Inflation factors in early 2016').

The rapid slowdown in annual consumer price growth (Charts 1.21–1.22) was also largely shaped by the high base effect (influenced by a sharp depreciation in the ruble, prices surged at end-2014 – early 2015).

As a result, in February 2016 inflation stood at 8.1% (compared to February 2015). Growth in food products and services prices continued to slow down (compared to the corresponding month of the previous year). Annual price growth for non-food goods has been falling since December 2015 after a period of growth beginning in November 2014.

It is important to note that at the start of 2016 relative prices compared with previous years continued to be biased toward food goods. This shift, which began at the start of 2015 as a result of rapid increases in food prices, was not adjusted over the year. Accordingly, this year we can expect slower growth in food prices compared with prices for non-food goods and services, which means that the gap between relative prices and values observed before the price shock at the start of 2015 will narrow.

The ongoing demand-side restrictions in the context of rather conservative fiscal policy and moderately tight monetary policy will set the ground for a further reduction in inflation. However, in 2016 Q2, annual inflation may pick up slightly due to the low base used for comparison (in 2015 Q2, given the markets' adaptation to the declining demand and the short-term strengthening of the ruble, consumer price growth was small). According to Bank of Russia estimates, annual inflation will be 7.4–7.6% in March 2016, far below the level expected by the Bank of Russia one year ago (9%)<sup>10</sup>. However, considering the impact of the base effect, in June the annual inflation will increase to 8.1–8.5%, which is slightly higher than forecast in the previous Report.

As before, main inflation risks are due to uncertainty about the external economic environment and changes in economic agents'

<sup>10</sup> Bank of Russia press release, 'On Bank of Russia key rate', dated 13 March 2015.

Table 1.2

## Inflation expectations of economic agents

Survey	Expectation horizon	2014				2015												2016	
		I	II	III	IV	January	February	March	April	May	June	July	August	September	October	November	December	January	February
Inflation expectations (absolute), %																			
Households																			
Public Opinion Foundation	next 12 months	11.8	11.7	12.5	15.5	16.6	18.1	15.7	14.0	14.3	15.0	13.9	14.8	16.0	15.3	15.8	16.4	16.7	15.7
	next 12 months	8.1	9.0	9.6	14.4	16.1	15.5	13.8	11.9	11.6	12.2	12.6	13.8	14.5	13.7	15.1	12.8	10.8	8.0
Professional analysts																			
Bloomberg	2016									6.9	6.7	6.8	6.9	7.0	7.3	7.5	7.2	8.0	8.3
Interfax	2016					7.7	6.5	7.0	6.7	7.2	6.7	6.1	6.4	7.4	7.2	7.2	7.6	8.5	8.3
Thomson Reuters	2016														7.7	7.0	7.5	8.1	7.9
Financial markets																			
OFZ-IN	next 8 years											5.8	6.5	6.4	5.8	5.6	5.8	6.2	6.3
OFZ-IN (without option adjustment)	next 8 years											7.4	8.0	8.1	7.3	7.1	7.3	7.7	7.8
Bond market	next quarter	7.1	7.2	8.1	8.7	-	-	11.2	-	-	15.8	-	-	14.8	-	-	14.6		
Interbank market	next quarter	7.2	8.2	8.6	10.0	-	-	14.7	-	-	17.4	-	-	15.0	-	-	13.2		
Inflation expectations (balance of replies*)																			
Households																			
Public Opinion Foundation	next 12 months	84	85	84	83	84	78	76	74	70	72	74	73	80	80	82	83	85	82
Public Opinion Foundation	next month	79	82	76	77	75	71	68	62	59	60	63	67	71	73	79	78	80	76
Enterprises																			
Russian Economic Barometer	next 3 months	26	26	32	70	62	48	32	20	6	20	14	30	28	46	38	48		
Bank of Russia (Banking Supervision Department)	next 3 months	14.3	12.4	13.9	30.3	25.9	20.2	14.8	11.5	11.6	12.7	13.3	13	12.1	13.2	15.4	17.3	15.6	
Retail prices (Rosstat)	next quarter	42	41	41	43	-	-	31	-	-	28	-	-	30	-	-	29		
Tariffs (Rosstat)	next quarter	6	5	2	5	-	-	7	-	-	6	-	-	2	-	-	2		

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 ( $\pm 0.2$  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 survey results, Rosstat, Interfax, Bloomberg, Thomson Reuters, Bank of Russia calculations, Russian Economic Barometer.

inflation expectations, which remain elevated (Table 1.3). Moreover, another source of price growth will be the increase in excise duties for certain goods, which was introduced at the start of 2016. According to Bank of Russia estimates, this factor's overall contribution to annual inflation could be roughly 0.5 pp (see Box 'The impact of changes in excise rates on inflation in 2016').

The increase in inflation risks in the second half of December 2015 – early 2016 caused by the fall in oil prices and the ruble depreciation was the main reason behind the Bank of Russia leaving its key rate unchanged in January 2016.

### Analysis of growth factors in certain manufacturing industries

In 2015, manufacturing output dynamics were shaped by three main factors, the main one being the negative impact of the overall downturn in demand in the economy, which caused a contraction in output in this sector. Nonetheless, several factors moderated the speed of this decline. First, external demand offered some support for output: goods and services exports rose by 3.1% in 2015 (on 2014). Second, import substitution, i.e. a shift in market structure in favour of domestic producers, contributed to a lesser fall in output. This factor played an important role: in 2015 the manufacturing output shrank by only 3.7%, while imports of manufactured goods fell by 37%.

We will now consider the impact of factors supporting output by examining sectors that demonstrated output growth in 2015. These sectors are the food industry, chemical industry, and the rubber sub-industry, as distinct from the manufacture of chemicals.

The contribution of these three factors to the change in the actual output index was estimated as follows. We considered goods that substantially shaped the output dynamics of the industry in question. The change in output in period  $i$  for each of these goods was calculated as the result of the change in exports  $X_i$  and domestic demand. This domestic demand was satisfied through domestic production  $Prod_i$  and imports  $M_i$ . The total resources for the specific good  $TR_i$  are the sum of domestic output and imports less exports:  $TR_i = Prod_i + M_i - X_i$ . Time periods were chosen based on the availability of the required statistical data: output in January-September 2015 ( $i=1$ ) was compared with the level over the equivalent period of 2014 ( $i=0$ ).

The impact of the change in internal demand on output dynamics was broken down into two components: qualitative and quantitative. The first refers to the change in the share of imports within a given goods item and is interpreted as a change in production caused by import substitution  $\Delta Prod_{import-substitution}$ . This change is defined as the difference between the actual production volume in 2015 and the hypothetical volume required to maintain imports at their former, generally higher, level as a share of the total goods:

$$\Delta Prod_{import-substitution} = -((M_i/TR_i) - (M_0/TR_0)) * TR_i.$$

The quantitative factor reflects the change in production for reasons not associated with import substitution:

$$\Delta Prod_{domestic-demand} = ((1 - M_0/TR_0) * (TR_i - TR_0)),$$

where  $\Delta Prod_{domestic-demand}$  – is the change in production driven by domestic demand.

Changes in the stocks of goods were considered insignificant for the purposes of this analysis.

The resulting breakdown of goods output dynamics were aggregated into types and sub-types of economic activity using approximations of average prices calculated by experts from public sources.

The analysis showed that in the food industry import substitution was the determining factor behind the growth, accounting for more than 95% of the growth in 2015, according to estimates.

In the chemical industry, output rose by 6.2 pp in 2015. Of this, import substitution contributed 2.5 pp, i.e. roughly 40% of the growth. The contribution of exports was 0.9 pp, i.e. roughly 15% of the growth. This small contribution from exports can be explained by the growing competition in external commodity markets and the low-tech level of the exported products. The remaining 45% of growth can be explained by other factors unrelated to import substitution. This portion of the increase in output can be explained in part by the 16% growth in demand for certain categories of medicines, but mostly (52%) by the chemical industry's special position as a supplier of intermediate raw materials for other industries featuring positive dynamics. Specifically, demand rose for basic and special chemicals used in

growing export industries (primarily ore extraction, chemical fibre production, and production of key chemicals), and also for special additives used in the transition to fuel production in compliance with the Euro-5 standard.

In the rubber industry, growth in 2015 was 2.8%. Effects unrelated to the displacement of more expensive imports made a considerable negative contribution to output dynamics (-9.3 pp). Even though, as the output (primarily tires for cars or special vehicles) is sufficiently competitive in the domestic market, and also in the Western European and Asian markets, import substitution and exports made a positive contribution that offset the fall in domestic demand (7.1 and 5 pp respectively).

### Inflation factors in early 2016

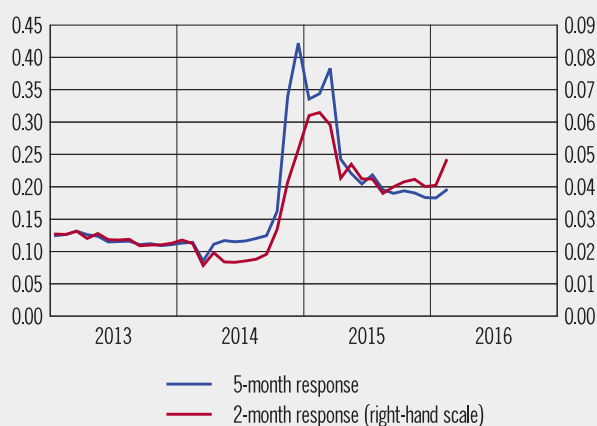
In December 2015 – January 2016, the rate at which the ruble depreciated increased due to the external economic climate's deterioration, which is comparable with the decline observed in August 2015 (13.4% versus 11.7% respectively). In August-September last year, according to Bank of Russia estimates, consumer price growth (seasonally adjusted) accelerated. Conversely, in January this year, seasonally-adjusted inflation eased, according to estimates, and in February it remained at January levels. This is primarily due to a change in price formation conditions.

In 2015, a key factor guiding inflation was dynamics in the ruble exchange rate, which, according to estimates, accounted for roughly 5 pp (about 40%) of consumer price growth over the year. The ruble's depreciation made its biggest contribution to inflation at the start of the year when it was amplified by the secondary effects of increased foreign exchange volatility (panic buying, shortages of certain goods in the domestic market due to higher returns on their exports). According to estimates made using a vector autoregressive model on a five-year rolling window, inflation's<sup>1</sup> reaction to the 1%-reduction in the nominal effective ruble exchange rate, which accumulated for five months (when its value was highest), and for a shorter (two month) horizon, increased by a factor of approximately 3 (Chart 1.23). By summer, with the secondary effects having worn out, the reaction to the stimulus had diminished. A steady downward trend in the magnitude of inflation's reaction to the foreign exchange shock has been seen since mid-2015. Nonetheless, by the start of 2016, inflation's sensitivity to foreign exchange shocks remained higher than in the period before autumn 2014. According to estimates, in February 2016, exchange rate dynamics' contribution to annual inflation was roughly 3 pp.

According to estimates, growing demand-side restrictions influenced the emergence of the slowing trend in monthly (seasonally adjusted) inflation, which has been observed since autumn 2015. This was the result both of a reduction in real household incomes and a change in households' economic behaviour in the context of increasing uncertainty. For example, consumption pattern shifted toward essential products. According to surveys, households were left with ever thinning funds for large-value purchases, let alone for future purchases. Demand for consumer loans shrank due to the high cost of borrowed funds and Russians' uncertainty as to their future incomes. As a result of these precautionary motives, households' propensity to save showed upward trends. Overall demand-side restrictions' contribution to the deceleration in inflation in December 2015 (on the corresponding month of the previous year) was estimated to be roughly 1 pp, and in February 2016 – up to 1.5 pp.

Weaker demand intensifies market competition, stimulating producers to reduce prices and improve product quality, and could be an additional factor behind the slowdown in inflation.

Chart 1.23  
Cumulative 2-month and 5-month inflation response  
(excluding utility services) to single ruble NEER impulse  
(%)



Source: Bank of Russia calculations.

<sup>1</sup> Excluding tariffs for housing and utility services which are not affected by movements in foreign exchange dynamics.

### The impact of changes in excise rates on inflation in 2016

The Tax Code of the Russian Federation states that excise rates on certain goods in the goods and services basket used to calculate the consumer price index are to be indexed annually. As of 1 January 2016, excise duties were raised for petrol, passenger cars, cigarettes and alcohol (Table 1.3).

The largest increase was seen in excise duties on petrol. The excise duty per litre of petrol rose by 1.50 on 1 January, and on 1 April it is expected to increase by a further 2.00. If the increased excise duty is fully passed on to the retail price for fuel, all things being equal, there will be a 10.4% increase in petrol prices, which will contribute roughly 0.3 pp to inflation in 2016 (Table 1.4). At the same time, wholesale petrol prices' dependence on 'netback'<sup>1</sup> and the contracted demand in the domestic market could partially offset this price growth.

The tobacco market also saw a significant growth in excise rates. The price of a pack of cigarettes could increase by 7.00 (or by 10%), which will contribute another 0.1 pp to annual inflation. The increase in excise duties on alcohol and passenger cars will have an insignificant impact on inflation. Aggregate contribution of the increased excise duties on these goods to annual inflation could reach 0.5 pp.

Table 1.3

#### Change in excise duties and their share in excisable goods' prices (%)

Excisable goods	Excise growth rate in 2016	Excise share in consumer price in 2015
Petrol	38/82.2*	12.9
Passenger cars	10.2	4.1
Cigarettes	25.5	52.6
Alcohol	5.9	24.6

\* Including expected increase in excise duty for petrol from 1 April 2016.

Source: Bank of Russia calculations.

Table 1.4

#### Influence of excise changes on consumer prices

Excisable goods	Consumer price growth rate in 2016, %	Contribution to annual inflation in 2016, percentage points
Petrol	4.8/10.4*	0.14/0.33*
Passenger cars	0.4	0.03
Cigarettes	10.0	0.10
Alcohol	1.4	0.06
Total contribution to inflation	-	0.52

\* Including expected increase in excise duty for petrol from 1 April 2016.

Source: Bank of Russia calculations.

<sup>1</sup> Netback is the export price of a product less export duties and transportation costs.

## 2. ECONOMIC OUTLOOK AND KEY RATE DECISION

External economic conditions, primarily the situation in the financial and commodity markets in January-March 2016, were largely in line with the risk scenario presented in the previous Report.

In Q4 2015 – Q1 2016, the risks associated with the cooling of the Chinese economy, accelerating capital outflow and destabilisation of the situation in the Chinese financial market began to materialise. The easing in economic growth in China and in a number of emerging and commodity-based economies with close economic ties to China is worsening the growth prospects of global demand for energy in the medium term. Short-term forecasts of the increase in supply to the energy market have been revised upwards in view of the lifting of sanctions from Iran and the likely restoration of Libyan exports. Record high oil inventories in the global economy at present will prevent the energy market from making a swift return to equilibrium. According to IEA estimates, supply and demand in the oil market will only regain balance by the end of 2017, helped in part by the slowing growth in supply compared with demand as a result of significantly reduced investment in oil production. Taken together, these factors will cause market participants' medium-term oil price forecasts to decline.

Accordingly, the Bank of Russia revised downwards its oil price path in the baseline scenario of its macroeconomic forecast. This scenario implies that the average price of Urals crude will be roughly \$30 per barrel in 2016, roughly \$35 per barrel in 2017 and roughly \$40 per barrel in 2018.

Considering the ongoing external uncertainty, the Bank of Russia also analyses a risk scenario that can result mainly from more negative developments in the Chinese economy and other EMEs, and also political issues and heightened tension among market participants having a more acute impact on the price situation in commodity markets. This scenario anticipates that Urals crude prices will drop to \$25 per barrel in 2016 and remain low in 2017–2018.

Increasing anxieties about a further easing in Chinese economic growth and the slowdown of the global economy will drag on global financial markets via two channels. On the one hand, the central banks of some of the largest developed economies – primarily the US Fed (see Section 1) and the ECB – are expected to maintain a slightly more accommodative monetary policy over the forecast horizon, than previously expected. On the other hand, increased risks to the global economy will manifest through persistently high investor risk aversion. The second factor will most likely prevail until at least the end of 2016, which will affect the dynamics of stock indices and country risk premiums for emerging markets and will worsen overall lending conditions in global capital markets.

Both of these scenarios assume that the financial and economic sanctions imposed against Russia will remain until the end of the forecast period (2016–2018). As a result, changing investor sentiment in global financial markets will have a limited impact on the dynamics of investment in Russian financial assets. In 2016, both in the baseline and risk scenario, the main component of the capital outflow from the Russian economy is still the repayment of external debts. According to estimates, in 2016, the actual net reduction in external financial liabilities in the private sector will be roughly \$30 billion. Further ahead, as the amount of debt falls and alternative sources of external borrowing are used more actively, the significance of this factor will subside. In subsequent years, capital outflow will largely be influenced by growth in foreign assets in the banking and real sectors of the Russian economy (see 'Balance of payments forecast for 2016–2018' in the Annex).

With global demand continuing to be restrained, external inflationary pressure will remain moderate in both of the examined scenarios, aided by the favourable situation in the global food market in addition to persistently low energy prices. According to estimates by international analytical agencies, the decline in global food prices is expected to continue



Chart 2.1

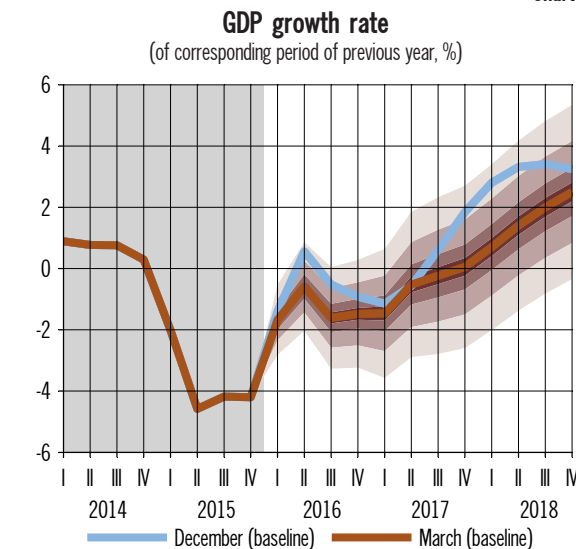
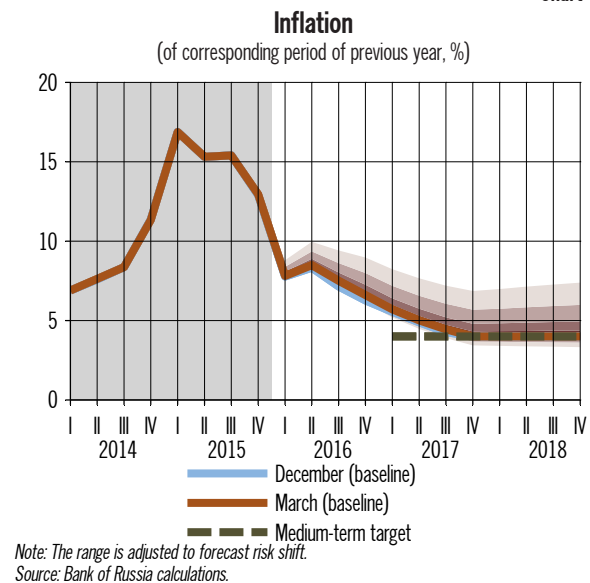


Chart 2.2



in 2016 in view of the significant stocks and excess supply. In 2017, this is forecast to stabilise and then global food prices will gradually recover as the global economy will grow.

The Russian economy's response to the next round of slump in oil prices at the start of 2016 will, according to estimates, be significantly less than in the previous year. This is the result of the economy's adjustment last year to changing macroeconomic conditions, which is evidenced by mounting import substitution in a number of manufacturing industries, steady growth in exports and a reduction in the dollar share of oil and oil products in exports. Moreover, the stabilisation of the sentiment among economic agents, who now have got used to operate under low oil prices, is an important prerequisite for economic activity indicators to respond mildly to another downturn in oil prices. This is seen in the behaviour of various survey-based indicators of expectations (including Rosstat's business confidence index and the PMI business activity index).

Fiscal policy will be an important factor influencing aggregate demand over the forecast period. Considering the massive deterioration in the external economic climate relative to the parameters used for budget projections, it is highly likely that the federal budget deficit at end-2016 will exceed the 3% target. Even in view of the amendments introduced up to date to tax and tariff policy, according to Bank of Russia estimates, federal budget incomes in 2016 will fall to 14–15%

of GDP from 17.0% of GDP in 2015<sup>1</sup>. Taking this into consideration, in the baseline developments scenario for the Russian economy, the Bank of Russia stated a precondition regarding the gradual implementation, from 2016 onwards, of measures aimed at budget consolidation and, accordingly, a subsequent reduction in the budget deficit in order to ensure the stability of public finances. In view of the pass-through effect of previous years' budget indicators for economy, the influence of fiscal policy on aggregate demand in 2016–2017 will be neutral, and in 2018 it could be slightly moderating.

It is important to note that there is still high uncertainty about the scale, nature and timeframe for the revision of fiscal policy parameters and the means of financing the deficit. In these conditions, when forecasting and making decisions about the key rate, the Bank of Russia examines alternative ways the situation could evolve, in addition to the baseline scenario, taking into account possible changes in fiscal policy in order to assess the need for appropriate adjustments to monetary policy.

In view of the deterioration in external conditions and the outlined fiscal policy, the GDP forecast for 2016 and 2017 was revised downwards compared with the previous Report, but still assumes a significant slowdown in the slump compared with 2015. GDP is projected to fall by 1.3–1.5% in 2016 after 3.7% in 2015.

In 2016, monetary conditions will remain moderately tight, but will gradually relax over the

<sup>1</sup> GDP is calculated using the methodology of the 2008 SNA.



forecast period. One of the factors behind the reduction in interest rates on liability operations of banks could be the expected large-scale spending of the Reserve Fund (to cover the budget deficit). The result may be that the banking sector will have a structural liquidity surplus<sup>2</sup>.

If a structural liquidity surplus emerges, the Bank of Russia's approach to managing money market rates and the system of monetary policy instruments will remain unchanged. One-week repo auctions will be replaced by deposit auctions with equivalent parameters. In addition, as the liquidity surplus expands, the Bank of Russia may opt to offset such medium-term excess by issuing its own bonds. The amount of borrowed funds will be determined using the forecast of the banking sector's liquidity. If necessary, 'fine tuning' operations with maturities between 1 to 6 days will be used to both provide and absorb liquidity. These measures will allow the Bank of Russia to maintain in the medium-term its control over short-term interbank lending rates and keep them close to the key rate. Nonetheless, a transition to a structural surplus could be accompanied by a change in the interbank rate's position within the Bank of Russia interest rate corridor, with rates falling somewhat compared with periods with a liquidity deficit. According to Bank of Russia estimates, this change will have a relatively minor (up to 50 bp) effect and will be gradual. The central bank will consider this factor when it decides whether to change the key rate, which will prevent any excessive relaxation of monetary conditions over the forecast horizon.

The Bank of Russia may also take additional steps to absorb the inflow of liquidity via the budget channel.

The inflow of additional funds into bank deposits through the budget channel could reduce credit institutions' desire to compete for depositors, which will affect deposit rates.

However, persistently high credit risks, which are reflected in the deterioration of credit servicing and increase the burden on banks' capital, will by contrast restrict any relaxation of price and non-price lending conditions. Coupled with the relatively

high debt burden of households and real sector companies, this will curb demand for borrowed funds.

Considering all demand- and supply-side factors, lending to non-financial organisations and households in rubles and foreign currencies will increase by 3–6% in 2016, according to estimates. Growth in money supply in the national definition will still outstrip the increase in lending to the economy due to the contribution of banking system's net lending to the government (amid the increase in the budget deficit), amounting to 8–11% in 2016.

A further relaxation of monetary conditions in 2017–2018, gradual recovery of economic agents' income and normalisation of the debt burden will all give rise to a gradual increase in demand for borrowed funds. Money supply growth in 2017–2018 is forecast to be in the range of 8–12%. The projected money supply growth rates may be a source of inflationary risks over the forecast horizon.

In addition, according to Bank of Russia estimates, financing the budget deficit through sovereign fund expenditures could lead to additional inflationary pressure from monetary aggregates as compared with a situation where the deficit is financed by issuing OFZs. This is due to the fact that when the budget deficit is financed through the spending of sovereign funds, private loans are displaced to a smaller degree, and all things being equal, money supply growth rates will be slightly higher, which requires an appropriate response from the monetary policy.

In 2017–2018, as oil prices gradually recover (as they are expected to do), monetary conditions relax, and business sentiment improves, the recession is expected to be consistently easing and be followed by a recovery in economic growth. In 2017, GDP growth will remain around zero ((–0.5)–0.5%). Quarterly GDP growth is expected to move into the positive territory at end-2016 – early 2017, and in 2018 GDP growth will be 1.5–2% in real terms.

Persistently elevated economic uncertainty and further unfavourable changes in external conditions will mainly worsen the recovery outlook in investment activity in the Russian economy. Renewed growth in fixed capital investment is not expected in the baseline scenario until 2018 (previously, in 2017). It will require lower uncertainty and the formation of stable positive expectations among economic agents regarding the Russian economy's prospects.

<sup>2</sup> A situation where banks' need to place funds at the Bank of Russia exceeds their need for refinancing. A transition to liquidity surplus implies a gradual reduction (ultimately to zero) in credit institutions' outstanding amounts on key refinancing operations of the Bank of Russia – repo auctions and loan auctions secured by non-marketable assets.

In addition, oil prices will remain an important factor in stepping up investment in the oil and gas sector. A gradual relaxation of monetary conditions will also provide some support for investment activity in the medium term.

The expected stabilisation of inventory dynamics, which have already sunk to a relatively low level following a long period of adjustment, will be a factor in reducing the negative contribution of gross capital formation to GDP growth from 2016 onwards.

As before, growth in consumer demand is only expected to recover in 2018. This recovery will evolve as current and expected income dynamics improve, monetary conditions ease and the propensity to consume picks up accordingly. The expected and ongoing stable employment and a gradual easing in the decline of real wages followed by their reverting to positive growth will determine a more robust recovery for consumer activity compared with investment activity in 2018. These expected medium-term wage dynamics are in part prompted by the growing strength of workers' negotiating positions in view of the unfavourable demographic situation (the ageing of the population and the reduction in the economically active population).

Positive growth in the exports of goods and services amid stable external demand will assist economic growth over the entire forecast period. A simultaneous reduction in imports in 2016–2017 in the wake of the continued contraction of domestic demand will mean that net exports will make a positive contribution to GDP growth. In 2018, it will become negative.

These trends in the export and import quantities of goods and services in combination with the price factor will feed into the current account reduction from \$67 billion in 2015 to around \$40 billion in 2016. In future, we can expect a gradual increase in the current account surplus as a result of a recovery in oil prices and a slight increase in non-oil and gas exports. However, considering the moderate demand expected for foreign assets, current account receipts will be more than sufficient to repay external debts. Over the forecast period, the Bank of Russia will allow credit institutions to extend their debts on foreign currency refinancing operations, but it is likely that demand for these operations will subside.

Over the course of 2016–2017, inflation is expected to gradually decline. The main factor holding back inflation in the medium term will be weak domestic demand caused both by a fall in household incomes in real terms and persistently high net savings rates (including lending).

An additional restraining influence on consumer price growth will come from a reduction in producer costs. This will chiefly be the result of persistently low energy prices amid relatively stable exchange rate dynamics.

According to estimates, growth in excise duties on a number of goods (petrol, passenger cars, cigarettes, and alcohol) will make a positive contribution to inflation in 2016, around 0.5 pp.

Considering the depreciation of the ruble at the start of 2016, which was largely caused by the fall in oil prices, and in view of the mentioned changes in the tax policy, the inflation forecast for the end of 2016 is 6–7%.

In future, given the Bank of Russia's monetary policy, inflation is forecast to lower to the 4% target in 2017 and remain at this level in 2018.

At the same time, monetary policy decisions are not taken solely on the basis of baseline scenario estimates. They also account for possible risks and assessments of the likelihood that such risks will occur.

A number of risks can be identified for the baseline scenario, which, if they occur, all things being equal, could cause key macroeconomic variables to deviate from the paths described above.

Internal economic risks are linked to the fiscal policy. If no measures are adopted to reduce the budget deficit, this could be a source of additional inflationary pressure. Accordingly, in order to keep such inflation risks in check, a tighter monetary policy is required.

In its monetary policy decision-making, the Bank of Russia also takes into account the possibility that the risk scenario will be realised due to deterioration in external conditions.

Under the risk scenario, the external situation will develop more unfavourably than in the baseline scenario, causing a stronger economic recession in 2016–2017. The adverse impact of the foreign economic situation on the Russian economy will take the form of a drop in income from exports, a decrease in the solvency of borrowers who have outstanding debt in foreign currency, a deterioration

Table 2.1

**Key parameters of the Bank of Russia's baseline forecast**

(as % of previous year, unless indicated otherwise)

	2015 (actual)	2016		2017		2018	
		Baseline	December report	Baseline	December report	Baseline	December report
Urals price, average for the year, US dollars per barrel	52	30	50	35	50	40	50
Inflation, % in December year-on-year	12.9	6.0 - 7.0	5.5-6.5	4.0	4.0	4.0	4.0
Gross domestic product	-3.7	-(1.5-1.3)	-(1.0-0.5)	-0.5-0.5	0.0-1.0	1.5-2.0	1.5-2.5
Final consumption expenditure	-7.9	-(2.6-2.4)	-(2.7-2.2)	-1.1-0.1	-(1.7-1.2)	2.8-3.2	0.9-1.8
– households	-10.1	-(3.1-2.8)	-(4.0-3.5)	-1.5-0.1	-(2.5-2.0)	3.6-4.4	1.0-2.1
Gross formation	-18.3	-(7.9-7.4)	3.6-4.1	-(1.7-0.1)	5.5-6.0	0.5-1.7	6.0-7.1
– gross fixed capital formation	-7.6	-(8.4-8.2)	-(1.0-0.5)	-1.1-0.0	1.5-2.0	0.1-0.6	2.2-3.1
Net exports	93.6	24.1-25.2	6.0-7.0	5.2-7.6	0.0-1.0	-(7.5-7)	-(8.0-3.0)
– exports	3.1	3.2-3.6	-(1.0-0.5)	1.0-1.3	2.8-3.3	0.2-0.7	3.0-4.0
– imports	-25.6	-(5.2-4.3)	-(3.3-2.8)	-(1.5-0.1)	3.5-4.0	3.1-3.6	5.0-7.0
Money supply in national definition, % annual growth	11.4	8-11	4-7	10-12	8-10	8-10	10-12
Monetary base in narrow definition, % annual growth	-4.3	0-2	2-5	7-9	3-6	6-8	5-8
Loans to non-financial organisations and households in rubles and foreign currency, % annual growth	7.1	3-6	3-6	7-9	7-9	8-10	9-11

in expectations regarding the Russian economic outlook, and a further decline in the attractiveness of investment in the Russian economy for domestic and foreign investors. In addition, it will become necessary to further reduce budget spending

compared with the baseline scenario given a fall in income and limited opportunities to fund the budget deficit. These factors will cause GDP to shrink by 2–3% in 2016.

Table 2.2

**Russia's balance of payments indicators – baseline scenario**

(billions of US dollars)

	2015 (actual)	2016		2017		2018	
		Baseline	December report	Baseline	December report	Baseline	December report
<b>Current account</b>	<b>67</b>	<b>40</b>	<b>56</b>	<b>44</b>	<b>51</b>	<b>51</b>	<b>49</b>
Balance of trade	146	106	136	114	132	133	130
Exports	340	250	337	264	338	297	344
Imports	-194	-144	-201	-150	-206	-164	-214
Balance of services	-37	-23	-39	-27	-40	-35	-45
Exports	50	43	53	43	54	44	56
Imports	-87	-66	-91	-70	-95	-79	-101
Primary and secondary income balance	-42	-43	-41	-44	-41	-48	-36
Capital account	0	0	0	0	0	0	0
<b>Current and capital account balance</b>	<b>67</b>	<b>40</b>	<b>56</b>	<b>44</b>	<b>51</b>	<b>51</b>	<b>49</b>
<b>Financial account (net of reserve assets)</b>	<b>-62</b>	<b>-40</b>	<b>-56</b>	<b>-44</b>	<b>-51</b>	<b>-51</b>	<b>-49</b>
General government and central bank	-7	0	-3	3	-3	1	-3
Net private capital outflow	-55	-40	-53	-47	-48	-52	-46
<b>Net errors and omissions</b>	<b>-3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Change in FX reserves</b> (‘+’ - decrease, ‘-’ - increase)	<b>-2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

At the same time, the possible enhanced volatility in the global and Russian financial markets, as assumed by this scenario, will lead to a sharp deterioration in exchange rate and inflationary expectations, which will significantly increase inflationary risks and risks to financial stability. In these conditions, inflation will be higher than in the baseline scenario and, according to estimates, will exceed 7% by end-2016.

In order to prevent these risks from snowballing, the Bank of Russia can use either interest rate policy measures or other instruments. Should this scenario materialise, the Bank of Russia does not rule out the possibility of increasing the key rate and then reducing it again as the economic situation

stabilises. Moreover, if further threats to financial stability emerge, the Bank of Russia will be ready to significantly expand foreign exchange refinancing operations and, if necessary, to carry out direct sales of foreign currency in the domestic foreign exchange market.

At the current stage, the central bank estimates that risks are distributed asymmetrically across possible price dynamics and are largely skewed towards the pro-inflationary side. As a result, on 18 March the Bank of Russia decided to keep its key rate at 11% p.a. In order to achieve its inflation target, the Bank of Russia may implement a moderately tight monetary policy over a longer period of time than previously anticipated.

## ANNEX

### Dynamics of major items in the Russian balance of payments in 2015 Q4

In 2015 Q4, the current account surplus fell by 9% as a result of a 30% reduction in the trade balance<sup>1</sup>. However, over 2015 as a whole, the current account surplus grew to \$66 billion, exceeding 2014 levels due to the larger reduction in the negative contribution made by the balance of non-tradable components and the balance of services. Out of all the current account's non-tradable components, the balance of investment income deficit saw the greatest reduction amid the repayment of external debts by the private sector (Chart 1).

The dynamics of the elements of the trade balance showed the extent to which Russia is sensitive to price fluctuations in the global commodity markets. In 2015, global oil prices fell by almost twofold, and natural gas prices in the European market fell by roughly 30%. As a result, commodity exports volume decreased by 32% to \$340 billion. Energy resources and commodities accounted for virtually all of this reduction in the exports volume. However, in 2015 Q4, the fall in oil prices eased and the rate at which exports are falling annually dropped to 31% from 38% in 2015 Q3.

The negative impact of decreasing prices on the exports volume was in part offset by growth in actual supply quantities: the export quantities of oil in 2015 rose by 9%, of oil products – by 4%, and of natural gas – by 6%. The growth in the export quantities of oil and oil product was largely due to supplies to China and Europe. Russia's position in the Chinese market strengthened slightly: Russia's share in the Chinese imports of crude oil rose from 11% in 2014 to 13% in 2015. The change in

Russia's share of the European Union's crude oil imports was negligible, remaining at roughly 30%. However, the outlook for Russian energy exports is unfavourable. Competition with Iran (in 2011 the share of crude oil imports into the European Union was 6%) for the European market, being a key market for Russia, is intensifying: the European market accounts for more than 60% of Russian energy exports. According to International Energy Agency forecasts, in 2016 the growth in Chinese demand for oil will ease and in Europe consumption will not grow on 2015.

In 2015, the fall in export volumes was only partially offset by the drastic slowdown in imports (-37%). In 2015, the trade surplus decreased by 23% overall. The reduction in goods imports was mainly a result of declines in machinery, equipment, and vehicles, and was caused by a slump in business and consumer activity in Russia. However, in 2015 Q4, the dip in imports slowed to 31% compared with 38% in the previous quarter, with the ruble depreciating less significantly than in the previous quarter.

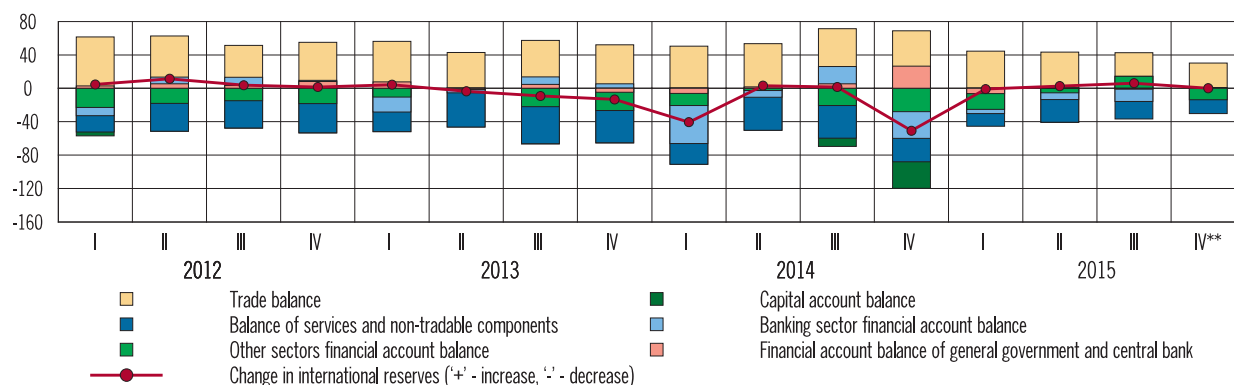
Net capital outflow, adjusted for the FX liquidity provided by the Bank of Russia to credit organisations on a repayable basis, the amount of operations in resident banks' correspondent accounts with the Bank of Russia, and also the amount of funds received by the Bank of Russia under FX swap operations, decreased from a record \$132 billion in 2014 to \$50 billion in 2015. The considerable reduction in the outflow of private capital in 2015 was assisted by normalised household demand for foreign assets. In 2015, in the absence of bouts of panic buying of FX cash, the capital outflow was largely the result of the fall in external liabilities in the private sector rather than an increase in foreign assets as in previous years. This decrease in liabilities comes from the repayment of external debts in the context of shrinking opportunities to refinance debt because of the EU and US financial sanctions. In 2015, the

<sup>1</sup> Here and hereinafter growth rates are relative to the corresponding period of the previous year, unless otherwise indicated.

Chart 1

### Major balance of payments components\*

(billions of US dollars)



\* Items 'Banking sector balance' and 'Change in international reserves' are adjusted by the amount of foreign currency liquidity provided by the Bank of Russia to credit institutions on a reverse basis, operations in resident banks' correspondent accounts with the Bank of Russia, and foreign currency received by the Bank of Russia in FX swaps. Item 'Other sectors balance' includes item 'Net errors and omissions'. According to BPM5.

\*\* 2015 Q4 - estimate.

Source: Bank of Russia.

private sector's external debt fell by \$74 billion to \$473 billion. In Q4 and in 2015 as a whole, banks reduced their liabilities faster – though other sectors did so slower – than set out in the external debt

repayment schedule. The reduction in external liabilities was covered both by the sales of foreign assets and funds accumulated from current account operations.



## Balance of payments forecast for 2016-2018

Compared with the forecasts in the previous Monetary Policy Report, the expected annual average oil prices in all of the Bank of Russia's scenarios were revised significantly downwards across the entire forecast period, which, together with the revision of forecasts for other key macroeconomic indicators<sup>1</sup>, has a significant impact on the forecast dynamics of the balance of payments items.

The baseline scenario implies that average Urals crude prices will remain at roughly \$30 per barrel in 2016 before gradually recovering to \$40 per barrel in 2018. As a result, in 2016, as in the previous year, commodity export volumes will fall significantly (by more than 25%) but will increase slowly in future.

At the same time, the low growth rates for aggregate demand and the effect of the past depreciation of the ruble will have a moderating influence on imports. Thus, in 2016 imports will fall in relative terms with almost the same pace as exports, and will subsequently recover at roughly comparable rates. These import dynamics will be largely offset by the fall in export receipts.

As a result, in 2016 the current account balance will drop to \$40 billion or 4.1% of GDP (compared with more than \$55 billion in the December forecast) and will then gradually increase to roughly \$50 billion (4.2% of GDP) in 2018 (Chart 2). The current account balance will also be maintained by the non-tradable component deficit remaining at all-time lows, since the decrease in external liabilities generates small amounts of investment income.

The main component of capital outflow in 2016 will be the forced (amid ongoing international sanctions) repayment of external liabilities by Russian business and banks. According to Bank of Russia estimates, despite the fact that external debt payments peaked at end-2014 – early 2015, in 2016–2017 this factor will still make a noticeable contribution to capital outflow. According to the external debt repayment schedule, total payments by banks and other sectors in 2016 will amount to roughly \$80 billion. However, taking into account

the continuing inflow of liabilities in the form of direct investment<sup>2</sup>, intra-group loans and borrowing, and partial refinancing of debts, the actual net reduction in private sector liabilities will be around \$30 billion (in 2015, net private sector liabilities shrank by roughly \$65 billion, with the scheduled payments of more than \$130 billion according to the external debt repayment schedule). As companies find external funding sources unaffected by the sanctions and as the total debt decreases, the scale of capital outflow associated with the net decrease in liabilities will abate (according to Bank of Russia estimates, to less than \$10 billion in 2018 under the baseline scenario).

In turn, capital outflow associated with the net demand for foreign assets will be small in 2016 under the baseline scenario. Residents' dollar income used to acquire foreign assets will decrease amid low growth rates in nominal ruble-denominated GDP and the ruble's actual depreciation at end-2015 – early 2016. Moreover, a proportion of liquid foreign assets will be used to fund the repayment of liabilities<sup>3</sup>. In future, as GDP recovers (and economic agents' incomes recover), demand for foreign assets will also increase. However, in view of the subdued forecast economic growth rates, this process will be relatively slow and demand for foreign assets will remain comparatively low by historical standards. In the absence of periods of consistently high volatility in the domestic financial market, household demand for foreign currency will be moderate given normal economic needs. Thus, capital outflow associated with net demand for foreign assets will, according to Bank of Russia estimates, increase under the baseline scenario from roughly \$10 billion in 2016 to more than \$40 billion in 2018 and, from 2017 onwards, will again become the main component of the aggregate private capital outflow (Chart 3).

In addition, the baseline scenario suggests a recovery in government borrowing in external markets in 2017–2018, reflected by a slight net increase in the liabilities of general government. However, the amount of borrowing will be negligible compared with private sector movements and will

<sup>1</sup> See Section 2 'Economic outlook and key rate decision'.

<sup>2</sup> Including liabilities not associated with debt accumulation, for example, various forms of equity holdings in affiliated companies.

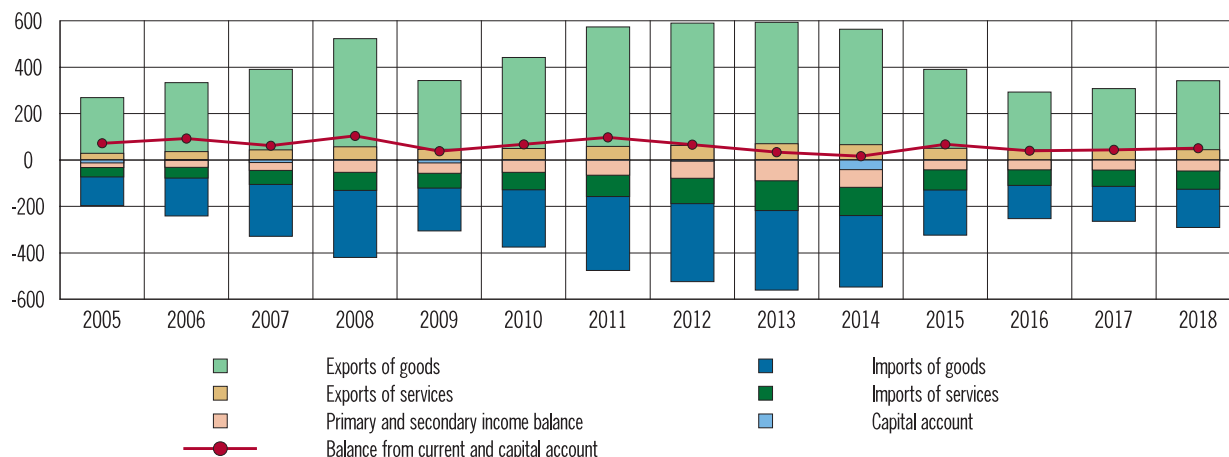
<sup>3</sup> In terms of balance of payments statistics, a reduction in foreign assets represents a capital inflow.



Chart 2

### Balance from current and capital account\*

(billions of US dollars)

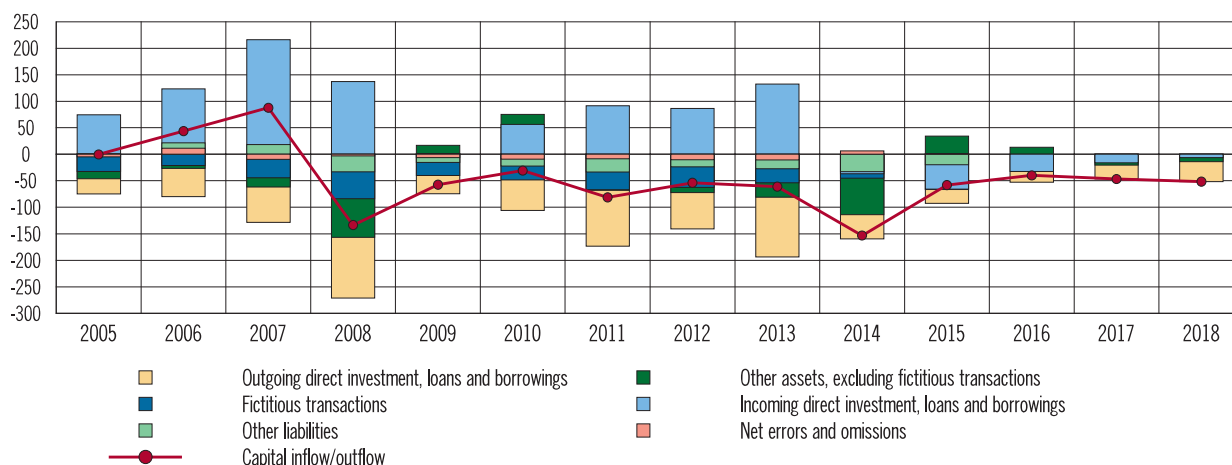


\* 2016-2018 - forecast.  
Source: Bank of Russia.

Chart 3

### Capital outflow\*

(billions of US dollars)



\* 2016-2018 - forecast.  
Source: Bank of Russia.

not have a noticeable impact on the balance of payments.

As a result, current account and financial account balance dynamics, as forecast in the baseline scenario, will not create the preconditions for any significant change in international reserves. Given a calm situation in the FX market, credit institutions' demand for Bank of Russia FX repos may reduce slightly.

The main risks to the forecast are linked to oil price dynamics. The Bank of Russia's risk scenario expects oil prices to fall to \$25 per barrel in 2016 and stabilise at this level over the longer period. In this case, in 2016–2018, export receipts will be significantly lower than under the baseline scenario.

Lower economic growth rates will also cause lower overall imports compared with the baseline scenario, but the fall in export incomes will be larger than the fall in imports. That said, with stable and low oil prices, export income will remain at roughly the same level over the entire forecast period. Imports in turn will start to gradually rise in the second half of 2017 as economic activity will recover. As a result, a sharp decrease in the current account balance is forecast in 2016 (almost twofold compared with the decrease under the baseline scenario) and is expected to gradually decline in future.

Capital outflow under the risk scenario will also be less than under the baseline scenario. The slight growth in the net reduction in liabilities, which is

due to the fact that projects in Russia are becoming less appealing to foreign investors and refinancing existing borrowings and obtaining new loans will be more difficult than in the baseline scenario, will be offset by a rapid decrease in demand for foreign assets (in dollar terms, the share of income that residents may spend for acquiring foreign assets will be less than in the baseline scenario). However, the reduction in capital outflow will not be

as profound as the reduction in the current account balance. Moreover, amid this new fall in oil prices, volatility in the FX market may increase and demand for foreign assets among residents may pick up. Ultimately, in 2017–2018, the Bank of Russia may need to expand the provision of foreign currency on a repayable basis and, if necessary, resort to direct interventions in the FX market in the event of risks to financial stability.

## Economic situation in Russian regions

Economic activity indicators in the 80 constituent territories of the Russian Federation<sup>1</sup> showed mixed dynamics in 2015.

The distribution<sup>2</sup> of real wage growth rates<sup>3</sup> by region in January-November 2015 shifted entirely into the negative (Chart 1). Moreover, the variation in the distribution increased, as shown by the standard deviation's growth from 3.4 to 5.5 pp. Estimates of the joint distribution of real wage growth in 2014 and 2015 indicate that in 2015 wages fell more in regions that exhibited lower wage growth in the previous year. Thus, in certain constituent territories of the Russian Federation, nominal wage dynamics appear even more sluggish.

The reduction in households' purchasing power led to a squeeze on consumer demand. While in 2014 retail turnover showed positive dynamics in 65 regions, in 2015 growth indicators started to become negative in most constituent territories of the Russian Federation (Chart 2). What is more, the distribution of the regions became even more uneven, compared with both the previous year and the distribution of real wage growth in 2015.

Fixed capital investment (Chart 3)<sup>4</sup> started to show negative trends in many constituent territories of the Russian Federation as early as 2014. In 2015, the distribution of growth indicators changed massively: the right mode disappeared and the distribution density in the negative became significantly higher, reflecting an intensive investment slump in many regions in Russia.

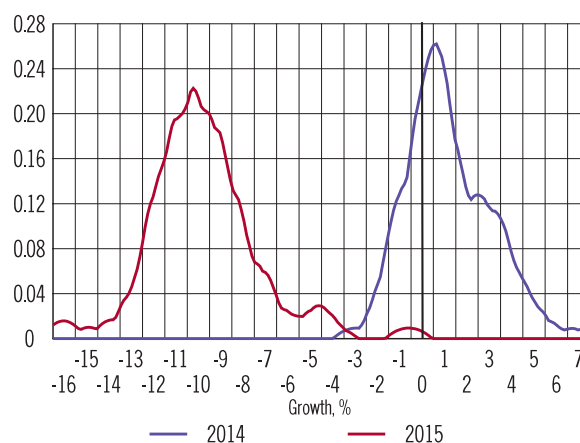
The sharp contraction of domestic demand was caused by a fall in manufacturing output in many regions. The fall in manufacturing output was the strongest in 2015. Despite the fact that distributions of manufacturing output growth in 2014 and 2015

look alike (Chart 4), a more detailed examination points to a deterioration in the situation in the manufacturing industry, broken down by region: the distribution's pronounced right mode disappeared and the distribution density increased in the interval (-5–23%).

In order to have a better understanding of the factors behind the growing regional heterogeneity in this indicator, constituent territories of the Russian Federation were grouped according to their specialisation and the distribution of manufacturing output growth was estimated separately for each group. The output distribution of the group with regions where machine building dominates changed most of all, reflecting a downturn in demand for

Chart 1

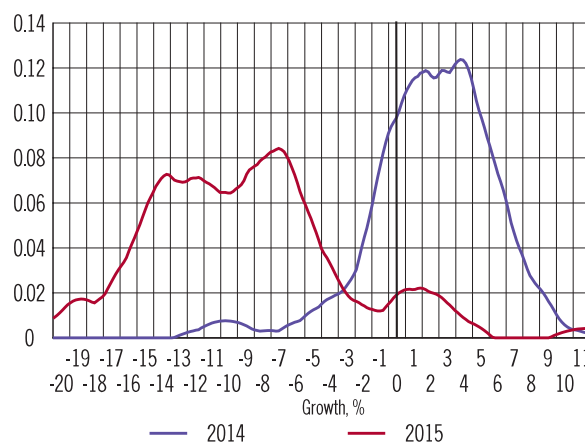
**Real wage growth rate**  
(percent change over corresponding period of previous year)



Source: Bank of Russia calculations.

Chart 2

**Retail turnover growth rate**  
(percent change over corresponding period of previous year)



Source: Bank of Russia calculations.

<sup>1</sup> The Republic of Crimea and city of Sevastopol were not taken into account when calculating the distribution of indicators due to a lack of data for 2014.

<sup>2</sup> The figures show non-parametric estimates of the probability density function. The Epanechnikov kernel was used. The window size was selected separately for each variable.

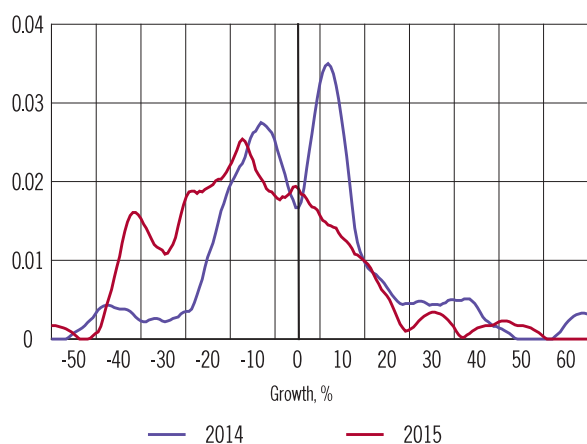
<sup>3</sup> For the real wage and fixed capital investment indicators, we looked at growth over January-November compared with the corresponding period of the previous year.

<sup>4</sup> The charts with the indicators 'Fixed capital investment' and 'Manufacturing dynamics' do not show distribution outliers.

Chart 3

### Fixed capital investment growth rate

(percent change over corresponding period of previous year)

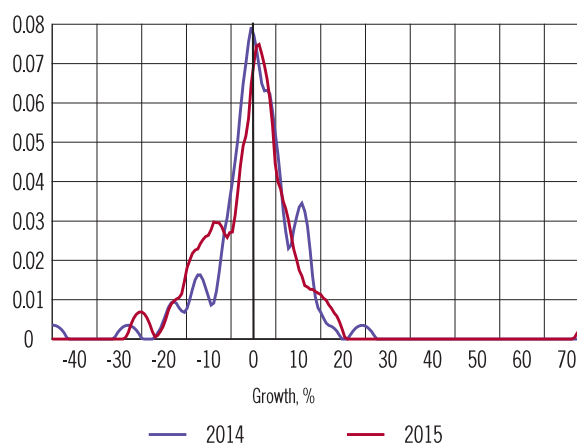


Source: Bank of Russia calculations.

Chart 4

### Manufacturing output growth rate

(percent change over corresponding period of previous year)



Source: Bank of Russia calculations.

investment goods. At the same time, there are exceptions, chief among which was the Rostov Region, where manufacturing output growth rose by 63.1%, primarily due to its transport machine building.

Regions where consumer goods dominate the manufacturing output structure suffered less (largely due to import substitution in the food industry, durable consumer goods production and household chemicals production), however the

share of regions with growing manufacturing output in this group fell from 80% to 60%.

The distribution of manufacturing output growth in constituent territories of the Russian Federation specialising in export commodities and intermediate goods changed the least.

Overall, the change in the distribution of these figures in 2015 indicates that the heterogeneity in the socio-economic position of Russian regions has increased slightly.

## Countercyclical charge to capital adequacy ratio (countercyclical capital buffer)

In line with the recommendations of the Basel Committee on Banking Supervision (BCBS), financial regulatory authorities may decide to introduce an additional requirement for the size of bank capital, i.e. a countercyclical capital buffer, in order to limit banking sector risks associated with excessive lending. The countercyclical capital buffer is a charge to the capital adequacy requirement for credit institutions. This instrument is anti-cyclical in nature: during a credit ‘boom’, the countercyclical capital buffer is introduced to support the future resilience of the banking sector in the event of a possible increase in non-performing loans. During the subsequent ‘slump’, this requirement is lifted to support credit supply and limit risks to the functioning of the real sector of the economy, which could pose additional threats of non-payment to the banking sector.

The size of the buffer is calculated as a percentage of a credit institution’s risk-weighted assets, and, according to BCBS guidelines, can range from 0 to 2.5% depending on the size of the credit gap in the economy<sup>1</sup>. The guidelines state that competent national authorities can modify the initial methodology by using a wide range of additional economic and financial indicators to make a reasoned judgment.

At present, roughly 30 countries around the world use a countercyclical capital buffer as a macroprudential instrument, but regulators in only four countries have established non-zero charges: 1.5% in Norway, 1.5% in Sweden, 2% in Switzerland and 1.25% in Hong Kong. Beginning 1 January 2016, the Bank of Russia also introduced the countercyclical buffer, setting it at 0%<sup>2</sup>.

In documents published by the BCBS and most central banks to establish the countercyclical buffer, this instrument is primarily considered

to be macroprudential<sup>3</sup>. At the same time, from a macroeconomic perspective, a change in the countercyclical buffer cannot be considered a neutral event. This increase has an effect on banks’ capital formation and (through the cost of funding) on their attitude towards risk, on setting price and non-price lending conditions and, accordingly, on lending dynamics in the economy<sup>4</sup>. Thus, introducing or changing this charge feeds through to the behaviour of the credit channel of the monetary policy transmission mechanism. The as yet few empirical works using statistical data from countries with experience in establishing a non-zero countercyclical buffer confirm that this instrument can significantly impact lending, smoothing out its dynamics and mitigating systemic risks<sup>5</sup>, which should be taken into consideration in monetary policy decision-making.

The theoretical conclusions reached by researchers through calibrated structural models (generally, DSGE with the financial sector) are more detailed and allow us to make a number of assumptions regarding the relationship between macroprudential and monetary policy. First, the majority of existing works concur that, by smoothing out periods of credit booms and slumps, the countercyclical buffer is conducive to more stable output dynamics and mitigates risks posed both to price and financial stability.

Second, contrary to intuition, which suggests that smoothing out credit dynamics by adjusting the countercyclical buffer might ‘do some of the work’ for macroeconomic regulation, theoretical analysis indicates that with the introduction of this increase monetary policy should, on the contrary, become more active in some respects. In order to guarantee greater stability in the economic system and reap greater rewards in terms of public welfare, the theory here calls for increasing inflation- and GDP sensitivity coefficients in the monetary policy

<sup>1</sup> See the ‘Credit Cycle Indicators’ in the Russian-language sub-section in the ‘Financial Stability’ section of the Bank of Russia’s website.

<sup>2</sup> See the press release ‘On countercyclical buffer to capital adequacy ratio’, dated 31 December 2015.

<sup>3</sup> Bank for International Settlement, Basel Committee on Banking Supervision (2015), *Frequently asked questions on the Basel III Countercyclical Capital Buffer*, [www.bis.org](http://www.bis.org); O. Kryvtsov, M. Molico, B. Tomlin (2015), ‘On the Nexus of Monetary Policy and Financial Stability: Recent Developments’, *Bank of Canada Discussion Paper*, 2015–7.

<sup>4</sup> M. Drehmann, L. Gambacorta (2012), ‘The effects of countercyclical capital buffers on bank lending’, *Applied Economics Letters*, Vol. 19, Issue 7, p. 603–608, 2012.

<sup>5</sup> C. Basten, C. Koch (2015), ‘Higher Bank Capital Requirements and Mortgage Pricing: Evidence from the Countercyclical Capital Buffer (CCB)’, *BIS Working Papers*, № 511.

rule (the reaction function of interest rates to the deviation of inflation from the target and to the output gap). This is justified by the need to offset a reduction in the financial accelerator amid increased capital adequacy requirements with the introduction of a non-zero countercyclical buffer<sup>6</sup>.

Moreover, the authors conclude that in the event of financial shocks due to bank lending, considering their highly destabilising effect on output and inflation, a combination of tighter monetary and macroprudential policy will be the optimal solution,

because it provides a better response than the mere smoothing out of real shocks (productivity, demand)<sup>7</sup>. In future, the Bank of Russia will be closely monitoring the financial system's reaction to the introduction of a non-zero countercyclical buffer to capital adequacy requirements as part of a system of macroprudential measures, in order to, among other things, refine the assessment of the effect of the monetary policy transmission mechanism and improve macroeconomic forecasting.

<sup>6</sup> M. Rubio, J. A. Carrasco-Gallego (2015), 'The New Financial Regulation in Basel III and Monetary Policy: A Macroprudential Approach', *Journal of Financial Stability*, 2015.

<sup>7</sup> C. Resende, A. Dib, R. Lalonde, N. Perevalov (2013), 'Countercyclical Bank Capital Requirement and Optimized Monetary Policy Rules', *Bank of Canada Working Paper 2013–8*; E. Faia, I. Angeloni (2013), 'Capital Regulation and Monetary Policy with Fragile Banks', *Journal of Monetary Economics*, Vol. 60, Issue 3, p. 311–324, April 2013.

## 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

Exclusion of shares from the Bank of Russia Lombard List and expansion of the list of bonds included	From 1 February 2016, the Bank of Russia excludes from its Lombard List all shares of resident legal entities and Russian depositary receipts for shares of non-resident legal entities, included in the list as of the date of this decision. The decision was made in view of the reduction of the banking sector structural liquidity deficit, lower credit institutions' demand for Bank of Russia refinancing and their considerable unused assets eligible as collateral for the central bank refinancing operations. In addition, new bond issues were included in the Lombard List, certain discounts and correction ratios were adjusted.
The Bank of Russia refinancing rate was made equal to its key rate	According to Ordinance No. 3894-U, from 1 January 2016 the Bank of Russia refinancing rate equals its key rate as of the respective date. From 1 January 2016, no individual values are set for the refinancing rate.
Required reserve ratios for credit institutions' FX liabilities were raised	From 1 April 2016, required reserve ratios for credit institutions' FX liabilities, excluding liabilities to individuals, were raised by 1 percentage point to 5.25%. This measure is intended to discourage growth of FX liabilities in the liability structure of credit institutions.
The countercyclical capital buffer was introduced	The Bank of Russia took the decision to introduce the countercyclical capital buffer for Russian credit institutions from 1 January 2016 and to set its rate at zero per cent of risk weighted assets.
A softer (anti-shock) approach to exchange rate use for calculating banks' required ratios was temporarily introduced	From 1 January 2016 till 31 March 2016, credit institutions are allowed to determine the maximum risk per borrower or a group of related borrowers (N6) and the maximum risk per borrower or a group of related borrowers of a banking group (N21) using the official exchange rates of the US dollar, euro, pound sterling, Swiss franc and Japanese yen against the ruble set by the Bank of Russia as of 1 January 2016. While assessing credit risk of certain restructured loans credit institutions are allowed not to change the quality of assessment of loan servicing.
The special facility for refinancing loans of SME Bank was updated	According to the decision of the Bank of Russia Board of Directors, JSC SME Bank is allowed to refinance loans extended to leasing companies oriented towards small and medium-sized businesses. The category of loan quality must be second or higher.
An instrument was created to refinance credit institutions against the pledge of claims on loans to leasing companies, which meet the requirements of the Industry Development Fund	The instrument was introduced on 19 January 2016 and is included in the list of Bank of Russia specialised instruments.



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 1.01.15	From 2.02.15	From 16.03.15	From 5.05.15	From 16.06.15	From 3.08.15	
Liquidity provision	Standing facilities	Overnight loans; Lombard loans; loans secured by gold, non-marketable assets or guarantees; FX swaps (ruble leg); repos	1 day	daily	18.00	16.00	15.00	13.50	12.50	12.00	
		Loans secured by gold	from 2 to 549 days <sup>1</sup>		18.50	16.50	15.50	14.00	13.00	12.50	
		Loans secured by non-marketable assets or guarantees	3 months <sup>1</sup>		18.75	16.75	15.75	14.25	13.25	12.75	
	Open market operations (minimum interest rates)	Auctions to provide loans secured by non-marketable assets	from 1 to 3 weeks	monthly	17.25	15.25	14.25	12.75	11.75	11.25	
			18 months <sup>1</sup>								occasionally
			36 months <sup>1</sup>								
			Lombard loan auctions	1 week	weekly						
	Liquidity absorption	Open market operations (maximum interest rates)	Repo auctions	from 1 to 6 days <sup>2</sup>	occasionally	17.00 (key rate)	15.00 (key rate)	14.00 (key rate)	12.50 (key rate)	11.50 (key rate)	11.00 (key rate)
			FX swap auctions	from 1 to 2 days <sup>2</sup>							
			Deposit auctions	from 1 to 6 days <sup>2</sup>							
			1 week <sup>3</sup>	weekly							
Standing facilities daily		Deposit operations	1 day, call	daily	16.00	14.00	13.00	11.50	10.50	10.00	
Memo item											
Refinancing rate <sup>4</sup>											

<sup>1</sup> Loans provided at a floating interest rate linked to the Bank of Russia key rate.<sup>2</sup> Fine-tuning operations.<sup>3</sup> Faced by structural liquidity deficit, the Bank of Russia holds repo auctions. See press release at [http://www.cbr.ru/press/PR.aspx?file=19012015\\_154523/2015-01-19T15\\_41\\_11.htm](http://www.cbr.ru/press/PR.aspx?file=19012015_154523/2015-01-19T15_41_11.htm).<sup>4</sup> In 2015, the Bank of Russia refinancing rate was 8.25%. From 1 January 2016, the value of the Bank of Russia refinancing rate equals its key rate as of the respective date. From 1 January 2016, no individual values are set for the refinancing rate.

Source: Bank of Russia.

## Statistical tables

Table 1

## 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					
					1.01.15	1.04.15	1.07.15	1.10.15	1.01.16	1.03.16
Liquidity provision	Standing facilities	Overnight loans	1 day	daily	0.0	1.2	4.0	0.0	0.0	0.4
		Lombard loans			3.7	4.1	4.0	4.1	2.9	10.7
		FX swaps			121.6	16.6	49.9	0.0	14.9	37.0
		Repos			96.2	107.0	275.9	289.3	264.9	299.7
		Loans secured by gold	from 1 to 549 days		1.2	0.6	0.5	0.6	0.5	0.6
		Loans secured by non-marketable assets or guarantees	from 1 to 549 days		2,055.9	598.0	335.1	122.7	234.8	280.4
	Open market operations	Auctions to provide loans secured by non-marketable assets	3 months	monthly	2,370.9	2,892.0	2,685.0	2,438.8	1,553.8	931.4
			from 1 to 3 weeks	occasionally						
		Repo auctions	1 week	weekly	2,727.6	1,910.8	1,572.3	912.0	1,448.5	491.0
			from 1 to 6 days							
		FX swap auctions	from 1 to 2 days	occasionally <sup>1</sup>	-	-	0.0	0.0	0.0	0.0
Liquidity absorption	Open market operations	Deposit auctions	from 1 to 6 days		0.0	0.0	0.0	0.0	0.0	0.0
			1 week	weekly <sup>2</sup>						
	Standing facilities	Deposit operations	1 day, call	daily	804.5	292.2	293.1	280.5	557.8	338.7

<sup>1</sup> Fine-tuning operations.<sup>2</sup> Faced by structural liquidity deficit, the Bank of Russia holds repo auctions. See press release at [http://www.cbr.ru/press/PR.aspx?file=19012015\\_154523if2015-01-19T15\\_41\\_11.htm](http://www.cbr.ru/press/PR.aspx?file=19012015_154523if2015-01-19T15_41_11.htm).

Source: Bank of Russia.

Table 2

### Required reserve ratios (%)

Liability type	Periods	
	From 1.01.15 to 31.03.15	From 1.04.15
To non-resident legal entities in rubles	4.25	4.25
To households in rubles and foreign currency		
Other liabilities in rubles		
To non-resident legal entities in foreign currency		5.25
Other liabilities in foreign currency		

Source: Bank of Russia.

Table 3

### Required reserve averaging ratio

Types of credit institutions	As of 1.01.15	From 10.09.15
Banks	0.7	0.8
Settlement non-bank credit institutions and non-bank credit institutions entitled to transfer funds without opening bank accounts and to conduct other related bank operations	1.0	1.0
Non-bank credit institutions performing deposit and lending operations	0.7	1.0

Source: Bank of Russia.

Table 4

### Bank of Russia operations to provide foreign currency

Instrument	Term	Frequency	Minimum auction rate as spread to LIBOR <sup>1</sup> , pp; fixed interest rate for FX swaps <sup>2</sup> , % p.a.					Bank of Russia claims, millions of US dollars					
			As of 1.01.15	From 30.03.15	From 13.04.15	From 21.04.15	From 14.12.15	As of 1.01.15	As of 1.04.15	As of 1.07.15	As of 1.10.15	As of 1.01.16	As of 1.03.16
Repo auctions <sup>3</sup>	1 week	weekly	0.50	1.00	1.50	2.00	2.00	209.8	1,556.1	18.3	1.7	100.1	7.5
	28 days							14,900.8	9,287.3	6,623.6	3,410.3	5,016.7	10,245.8
	12 months <sup>4</sup>							4,737.3	17,035.8	23,479.2	20,423.0	15,550.0	8,625.9
Loan auctions	28 days	monthly	0.75	1.25	1.75	2.25	2.25	-	0.0	441.0	444.0	0.0	0.0
	365 days		0.75	1.25	2.00	2.75	3.25	-	2,526.8	2,526.8	2,507.2	1,494.7	530.0
USD/RUB sell/buy FX swaps	1 day	daily	1.50	1.50	1.50	1.50	1.50	1,600.0	0.0	0.0	0.0	0.0	0.0

<sup>1</sup> In respective currencies and for respective terms.

<sup>2</sup> For dollar leg; the rate for ruble leg is equal to the Bank of Russia key rate less 1 pp.

<sup>3</sup> Credit institutions' outstanding amounts under the first leg of repos.

<sup>4</sup> From 1 June through 14 December 2015, 12-month FX repo auctions were suspended.

Source: Bank of Russia.

Table 5

Bank of Russia specialised refinancing facilities<sup>1</sup>

Purpose of indirect bank lending	Maturity	Collateral	Interest rate in January–November 2015, % p.a. <sup>2</sup>	Bank of Russia claims on credit institutions, billions of rubles						Limit as of 1 March 2016, billions of rubles
				1.01.15	1.04.15	1.07.15	1.10.15	1.01.16	1.03.16	
Non-commodity exports	Up to 3 years <sup>3</sup>	Claims under loan agreements secured by contracts of insurance of JSC EXIAR	9.00	—	0.52	10.41	16.53	39.66	45.84	50
Large-scale investment projects <sup>4</sup>	Up to 3 years	Claims under bank loans for investment projects secured by the government guarantees of the Russian Federation	9.00	—	—	3.68	26.25	53.44	67.66	100
		Bonds placed to fund investment projects and included in the Bank of Russia Lombard List	9.00	2.85	2.85	2.85	2.85	2.85	2.85	
Small and medium-sized enterprises	Up to 3 years <sup>3</sup>	Claims under loan agreements of JSC SME Bank <sup>5</sup>	6.50	23.26	23.80	23.93	30.32	40.10	37.87	50
	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	0.78	
Leasing	Up to 3 years	Claims on loans to leasing companies <sup>7</sup>	9.00	—	—	—	—	—	—	10
Military mortgage	Up to 3 years	Mortgages issued under the Military Mortgage programme	10.75	—	7.45	10.00	19.65	21.01	21.01	30

<sup>1</sup> 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.

<sup>2</sup> 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's website.

<sup>3</sup> Until 1 June 2015, the maturity of Bank of Russia loans was one to 365 days. From 1 June 2015, the maturity of Bank of Russia loans was extended to three years.

<sup>4</sup> 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 Government Guarantees of the Russian Federation for Loans or Bonded Loans Attracted to Implement 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 on the Basis of Project Financing'.

<sup>5</sup> 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.

<sup>6</sup> The instrument was introduced in June 2015.

<sup>7</sup> The instrument was introduced in December 2015.

Source: Bank of Russia.

Table 6

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

	Inflation	Core inflation	Food	Food <sup>1</sup>	Vegetables and fruit	Non-food goods	Non-food goods excluding petrol <sup>2</sup>	Services
<b>2014</b>								
January	0.6	0.4	1.0	0.5	5.8	0.3	0.3	0.5
February	0.7	0.5	1.2	0.7	5.1	0.4	0.4	0.4
March	1.0	0.8	1.8	1.3	5.3	0.7	0.6	0.5
April	0.9	0.9	1.3	1.2	2.3	0.6	0.6	0.7
May	0.9	0.9	1.5	1.3	2.4	0.5	0.5	0.8
June	0.6	0.8	0.7	1.1	-2.8	0.4	0.4	0.9
July	0.5	0.6	-0.1	1.0	-8.1	0.4	0.3	1.4
August	0.2	0.6	-0.3	0.9	-10.7	0.5	0.4	0.7
September	0.7	0.9	1.0	1.2	-1.2	0.6	0.5	0.3
October	0.8	0.8	1.2	1.0	2.8	0.6	0.6	0.6
November	1.3	1.0	2.0	1.3	8.7	0.6	0.6	1.2
December	2.6	2.6	3.3	2.2	12.9	2.3	2.5	2.2
Total for the year (December on December)	11.4	11.2	15.4	14.7	22.0	8.1	8.0	10.5
<b>2015</b>								
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)	11.4	11.2	15.4	14.7	22.0	8.1	8.0	10.5
<b>2016</b>								
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

<sup>1</sup> Excluding vegetables and fruit.<sup>2</sup> 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 <sup>1</sup>	Vegetables and fruit	Non-food goods	Non-food goods <sup>2</sup>	Services
<b>2014</b>								
January	6.1	5.5	6.5	6.4	7.7	4.3	4.3	7.8
February	6.2	5.6	6.9	6.5	10.1	4.3	4.3	7.9
March	6.9	6.0	8.4	7.5	15.9	4.6	4.5	8.2
April	7.3	6.5	9.0	8.3	14.4	4.9	4.7	8.5
May	7.6	7.0	9.5	9.5	10.1	5.1	4.9	8.4
June	7.8	7.5	9.8	10.5	3.9	5.3	5.0	8.7
July	7.5	7.8	9.8	11.2	-1.5	5.6	5.2	7.0
August	7.6	8.0	10.3	11.5	-0.8	5.5	5.3	6.7
September	8.0	8.2	11.4	12.0	6.1	5.5	5.3	6.9
October	8.3	8.4	11.5	12.1	5.3	5.7	5.4	7.6
November	9.1	8.9	12.6	12.8	11.1	5.9	5.6	8.7
December	11.4	11.2	15.4	14.7	22.0	8.1	8.0	10.5
<b>2015</b>								
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
<b>2016</b>								
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

<sup>1</sup> Excluding vegetables and fruit.<sup>2</sup> Bank of Russia estimate.

Sources: Rosstat, Bank of Russia calculations.



Table 8

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

	Industrial production <sup>1</sup>	Agriculture	Construction	Freight turnover	Retail trade turnover	Fixed capital investment	Consumer expenditure	Output index of goods and services by key industries	GDP <sup>2</sup>
<b>2014</b>									
January	0.4	1.3	0.1	0.5	0.0	0.5	-0.4	-0.2	
February	1.1	0.2	-0.4	-2.2	0.8	0.8	2.4	1.3	
March	-0.2	0.1	0.2	-1.0	0.2	-0.2	0.1	-0.4	-0.4
April	1.5	0.6	0.2	0.2	0.1	-0.1	0.1	0.7	
May	0.2	0.3	-0.8	1.6	-0.1	0.9	-0.5	0.2	
June	-0.8	-0.1	0.5	0.3	-0.1	-1.3	-0.1	-0.6	0.5
July	0.3	2.0	-0.3	-2.4	0.1	1.0	-0.1	0.1	
August	-0.7	-1.9	0.0	0.2	0.0	-1.4	0.0	-0.6	
September	0.8	2.8	-1.4	0.8	0.1	0.3	0.4	0.1	0.2
October	0.0	-2.5	0.0	-0.6	0.0	-3.1	-0.4	-0.8	
November	-1.1	0.6	-1.5	0.1	0.1	-0.6	0.1	0.3	
December	1.7	0.5	-0.7	-0.6	2.7	-0.3	0.5	-0.1	0.0
<b>2015</b>									
January	-2.4	0.0	-1.2	-0.1	-8.1	-1.1	-7.5	-1.5	
February	-0.7	0.2	0.2	0.1	-1.3	-1.1	-0.2	-1.0	
March	0.3	0.3	-0.9	0.9	-0.8	-0.7	-0.2	-0.3	-2.7
April	-1.6	0.0	-0.8	-1.5	-0.8	-0.7	-0.6	-1.3	
May	-0.6	0.2	-0.7	-1.0	-0.4	-1.5	0.0	-0.4	
June	-0.1	0.2	-0.2	0.7	-0.6	-0.5	-0.3	-0.5	-2.2
July	0.0	-0.5	-1.2	2.8	-0.5	-1.5	-0.2	0.2	
August	-0.3	1.0	-0.2	-1.0	-0.5	-0.4	-0.4	-0.1	
September	0.7	-0.1	0.2	1.2	-0.7	-1.6	-0.7	0.5	0.6
October	-0.1	1.3	-0.6	2.6	-0.6	2.5	-0.3	-0.1	
November	-0.6	-0.9	0.5	-1.1	-0.7	-1.9	-0.7	-1.1	
December	-0.1	0.8	0.2	-0.2	-0.4	-0.9	-0.7	0.1	
<b>2016</b>									
January	0.4	0.0	-0.7	-2.4	-0.4	...	-0.6	0.0	

<sup>1</sup> Rosstat estimate.<sup>2</sup> Quarterly data.

Sources: Rosstat, Bank of Russia calculations.

Table 9

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

	2015	2016	Memo item: 2015
	Total	January	January
Output of goods and services by key industries	-4.6	-3.5	-1.1
Industrial output	-3.4	-2.7	0.9
Agricultural output	3.0	2.5	2.8
Fixed capital investment	-8.4	...	-4.1
Construction	-7.0	-4.2	-6.7
Retail trade turnover	-10.0	-7.3	-3.6
Household real disposable money income	-4.0	-6.3	-1.4
Real wage	-9.3	-6.1	-8.4
Number of unemployed	7.4	6.2	-2.1
Unemployment (as % of economically active population)	5.8 <sup>1</sup>	5.8	5.5

<sup>1</sup> As of end of period.

Sources: Rosstat, Bank of Russia calculations.

Table 10

**Change in Bank of Russia forecasts  
of GDP growth of Russia's trading partners**  
(%)

		Forecast of GDP growth in 2016, %		Memo item: country's share in aggregate GDP of trading partners
		February 2016	November 2015	
Total		2.1	2.1	100.0
1	Germany	1.4	1.5	13.67
2	Italy	1.1	1.0	8.95
3	China	6.3	6.2	8.93
4	The Netherlands	1.6	1.6	6.72
5	Turkey	2.7	2.5	6.62
6	Poland	3.3	3.2	4.92
7	Belarus	-1.0	-0.8	4.84
8	Belgium	1.1	1.1	4.50
9	Japan	1.0	0.9	4.42
10	United States	2.6	2.8	4.08
11	France	1.1	1.1	3.89
12	Korea, Republic of	2.6	2.5	3.79
13	United Kingdom	2.1	2.2	3.65
14	Kazakhstan	1.6	2.5	3.58
15	Finland	0.2	0.4	3.33
16	Switzerland	0.9	0.9	2.48
17	Latvia	2.8	2.7	2.44
18	Hungary	2.1	2.1	1.68
19	India	7.5	7.4	1.67
20	Slovakia	2.8	2.7	1.54
21	Czech Republic	2.2	2.1	1.44
22	Lithuania	2.5	2.5	1.44
23	Spain	2.5	2.4	1.42
24	Ukraine	1.4	1.4	0.00

\* The aggregate GDP growth rate is calculated based on 24 Russia's trading partners which account for more than 1% of Russian exports on average for 5 years (from 2010 to 2014). Previously, the calculation for 2008-2012 was based on 23 countries. The share of each country was determined based on the exports to major trading partners. In this report, 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	Current level, %	12-month change, pp
Poland	target rate	1.50	4.03.2015	2.00	-0.50	0		-0.7	0.70
Hungary	base rate	1.35	21.07.2015	1.50	-0.15	5		0.3	1.30
Czech Republic	repo rate (14 days)	0.05	1.11.2012	0.25	-0.20	0		0.5	0.40
Romania	base rate	1.75	6.05.2015	2.00	-0.25	2		-2.1	-2.54
Bulgaria	base rate	0.00	1.02.2016	0.01	-0.01	3		0.0	1.00
Serbia	key policy rate	4.25	11.02.2016	4.50	-0.25	7		2.4	2.30
Israel	target overnight rate	0.10	23.02.2015	0.25	-0.15	0		-0.6	-0.09
Brazil	target rate	14.25	29.07.2015	13.75	0.50	3		10.7	3.57
Chile	monetary policy rate	3.50	17.12.2015	3.25	0.25	2		4.7	0.30
	lending rate (12 months)	4.35	26.10.2015	4.60	-0.25	4		1.8	1.00
China	deposit rate (12 months)	1.50	26.10.2015	1.75	-0.25	4			
	required reserve rate	17.00	1.03.2016	17.50	-0.50	4			
	reverse repo rate	6.75	29.09.2015	7.25	-0.50	2		5.7	0.50
India	repo rate	5.75	29.09.2015	6.25	-0.50	2			
Indonesia	target rate	7.00	18.02.2016	7.25	-0.25	2		4.4	-1.87
Korea, Republic of	base rate	1.50	11.06.2015	1.75	-0.25	1		1.3	0.80
Malaysia	target overnight rate	3.25	10.07.2014	3.00	0.25	0		3.5	2.50
Mexico	target rate	3.75	17.02.2016	3.25	0.50	2		2.6	-0.46
Philippines	monetary policy rate	4.00	12.09.2014	3.75	0.25	0		0.9	-1.60
Russia	repo auction rate (7 days)	11.00	3.08.2015	11.50	-0.50	3		8.1	-8.60
South Africa	repo rate	6.75	28.01.2016	6.25	0.50	3		6.2	1.80
Thailand	repo rate	1.50	29.04.2015	1.75	-0.25	1		-0.5	0.02
Turkey	repo rate (7 days)	7.50	24.02.2015	7.75	-0.25	0		8.8	1.23
								repo rate (7 days)	
United States	federal funds rate (upper bound)	0.50	16.12.2015	0.25	0.25	1		1.4	1.50
Euro area	refinancing rate	0.00	10.03.2016	0.05	-0.05	1		-0.2	0.10
United Kingdom	base rate	0.50	5.03.2009	1.00	-0.50	0		0.3	0.00
Japan	overnight rate	0.10	19.12.2008	0.30	-0.20	0		0.0	-2.40
Canada	target overnight rate	0.50	15.07.2015	0.75	-0.25	1		2.0	1.00
Australia	overnight rate	2.00	5.05.2015	2.25	-0.25	1		1.7	0.00
New Zealand	overnight rate	2.25	10.03.2016	2.50	-0.25	5		0.1	-0.70
Denmark	lending rate	0.05	20.01.2015	0.20	-0.15	0		2.0	0.20
	certificate of deposit rate	-0.65	8.01.2016	-0.75	0.10	1			
Switzerland	3m LIBOR - min	-1.25	15.01.2015	-0.75	-0.50	0		-0.8	0.00
	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	3		1.3	0.95
Norway	key deposit rate	0.50	17.03.2016	0.75	-0.25	3		3.0	1.00

Note: As of 17 March 2016, changes occurred from the release of the previous Monetary Policy Report issue are put in colour.

Source: Bloomberg.

Table 12

**Balance of payments of the Russian Federation<sup>1</sup>**  
(billions of US dollars)

	2015				
	I	II	III	IV <sup>2</sup>	Total <sup>2</sup>
Current account	29.3	15.9	7.5	13.0	65.8
Trade balance	44.6	43.1	28.3	29.5	145.6
Trade balance, YoY, %	-11.7	-16.6	-37.5	-30.3	-23.2
Exports of goods	89.6	91.1	78.4	80.4	339.6
Exports of goods, YoY, %	-27.2	-31.1	-37.6	-31.1	-31.8
crude oil	22.7	25.4	21.5	19.6	89.2
crude oil, YoY, %	-41.5	-40.0	-46.7	-39.7	-42.0
oil products	20.0	19.1	14.9	13.0	67.0
oil products, YoY, %	-27.3	-37.4	-53.1	-50.0	-42.2
natural gas	11.4	10.4	9.4	10.5	41.9
natural gas, YoY, %	-35.6	-36.2	-5.1	-7.1	-24.1
other	35.4	36.2	32.6	37.3	141.5
other, YoY, %	-9.2	-16.2	-25.4	-20.3	-18.1
Imports of goods	45.0	48.0	50.1	51.0	194.0
Imports of goods, YoY, %	-37.9	-40.4	-37.8	-31.5	-37.0
Balance of services	-8.3	-9.6	-12.1	-7.1	-37.1
Balance of services, YoY, %	-25.2	-33.3	-34.9	-36.6	-32.9
Exports of services	11.7	13.1	13.2	11.7	49.7
Exports of services, YoY, %	-22.5	-24.3	-25.8	-24.5	-24.4
Imports of services	20.1	22.6	25.3	18.8	86.8
Imports of services, YoY, %	-23.3	-28.7	-30.5	-29.6	-28.3
Compensation of employees	-1.4	-1.3	-0.9	-0.8	-4.3
Investment income	-4.6	-14.9	-5.7	-6.7	-32.0
Receivable	8.8	7.0	9.3	9.1	34.1
Payable	13.4	21.9	15.0	15.8	66.1
Rent	0.0	0.0	0.0	0.0	0.0
Secondary income	-1.0	-1.4	-2.2	-1.8	-6.4
Non-tradable components	-7.0	-17.6	-8.7	-9.4	-42.7
Non-tradable components, YoY, %	-48.5	-30.2	-57.6	-44.0	-43.8
Capital account	0.0	-0.2	0.0	0.0	-0.2
Balance of current and capital accounts	29.3	15.7	7.5	13.0	65.6
Financial account (except reserve assets)	36.7	19.0	2.4	3.1	61.1
Net incurrence of liabilities («+» – increase, «-» – decrease)	-38.1	-11.2	-6.3	-14.2	-69.8
Federal government, local governments, and central bank	-6.2	1.0	-1.0	0.8	-5.4
Banks and other sectors	-31.9	-12.2	-5.3	-15.0	-64.3
Net acquisition of financial assets, excluding reserve assets («+» – decrease, «-» – increase)	-1.4	7.8	-3.9	-11.1	-8.6
General government and central bank	0.2	0.7	0.1	0.8	1.8
Banks and other sectors	-1.6	7.0	-4.0	-11.9	-10.4
Net errors and omissions	-2.8	1.1	4.6	-6.1	-3.2
Change in FX reserves («+» – decrease, «-» – increase)	-10.1	-2.2	9.7	3.8	1.3
Net capital inflow/outflow by banks and enterprises	32.9	18.3	-3.4	9.2	56.9
Certain indicators adjusted by the amount of FX swaps between the Bank of Russia and resident banks, FX liquidity provided by the Bank of Russia to credit institutions on a reverse basis, and funds in resident banks' correspondent accounts with the Bank of Russia					
Change in FX reserve assets («+» – decrease, «-» – increase)	-0.9	2.6	6.2	0.1	8.0
Net capital inflow/outflow by banks and enterprises	23.7	13.5	0.1	13.0	50.2

<sup>1</sup> According to BPM6.<sup>2</sup> Estimate.

Source: Bank of Russia.

## LIST OF BOXES

Changes in prudential regulation and conditions for monetary policy implementation .....	7
Fiscal policy .....	9
The financial standing of organisations .....	13
Analysis of growth factors in certain manufacturing industries.....	16
Inflation factors in early 2016.....	17
The impact of changes in excise rates on inflation in 2016 .....	18

## GLOSSARY

### **Asset-backed securities (ABS)**

Bonds or other securities backed by pooled assets which usually generate predictable 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**

Interest rate on main operations of the Bank of Russia to manage banking sector liquidity. A key indicator for the monetary policy stance. 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:  $BF = (CALL + PUT - 2 \cdot ATM) / 2$ , 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, Japanese yen, and 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**

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

**Dollarisation of deposits**

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

**Dual-currency basket**

Ruble exchange rate index calculated as the sum of 0.55 US dollars and 0.45 euros in rubles.

### **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 which considers price stability as the final target of the central bank. 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.

**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 stance**

The characteristics of a monetary policy's impact on the economy. Tight stance suggests the restraining effect of the monetary policy on economic activity in order to reduce inflationary pressures, whereas a loose monetary policy stance implies economic stimulation with possible upward pressure on inflation.

**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.

**Nominal effective ruble exchange rate index**

The nominal effective ruble 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.

**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 with 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 distribution, 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 potential 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 potential 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. Output fluctuations around the potential level are called cyclical fluctuations.

**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 index**

An indicator of business activity based on company surveys. A PMI of more than 50 represents an expansion of business activity, a reading under 50 represents a contraction.

**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 initially 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 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**

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.

**Tradable sector of economy**

Economy sector made up of agriculture, hunting, forestry, fishery, fish farming, mining 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).

**Volatility smile**

Implied volatility dependence on the option strike price. Each strike price has a respective option delta which is equal to the first option value derived from the underlying asset price and which reflects an approximated probability, relative to the risk-neutral measure, of at-the-money option.



## 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

Cbonds-Muni —municipal bond index calculated by Cbonds

CCPI — core consumer price index

CIS — Commonwealth of Independent States

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

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 index

Industrial PPI – Industrial Producer Price Index

inFOM – Institute of the Public Opinion Foundation institute

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 Mode

NPF — non-governmental pension fund

OFZ — federal government bonds

OFZ-IN — federal government bonds with inflation-indexed nominal value

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

PPI — Producer Price Index

QPM — quarterly projection model of the Bank of Russia

REB — Russian Economic Barometer, monthly release

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 on the Russian interbank bond market, calculated by Cbonds)

SMB — small and medium-sized businesses

SNA — System of National Accounts

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

USA — United States of America

VCIOM — Russian Public Opinion Research Centre

VEB — Vnesheconombank

VECM — Vector Error Correction Model



