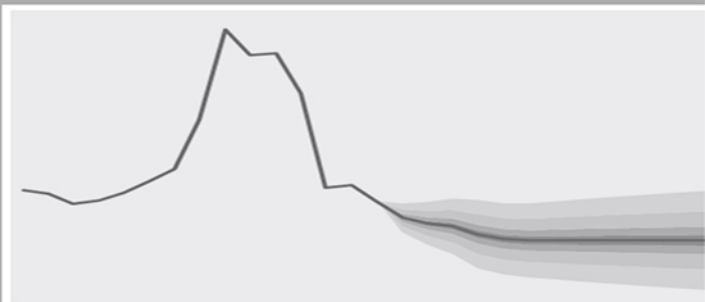




# Bank of Russia

The Central Bank of the Russian Federation



# 4%

# No. 3

SEPTEMBER 2017

## MONETARY POLICY REPORT

Moscow

## DEAR READERS,

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- 2. Which subjects, in your opinion, should be illustrated in this report?*
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Many thanks in advance for your assistance.

The report has been prepared based on statistics as of 8 September 2017.

Data cut-off date for forecast calculations is 1 September 2017 (if statistics and other information relevant for decision-making appear after the data cut-off date, they are included in the text of the Report and may be used for the adjustment of the mid-term forecast).

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

Please send your suggestions and comments to [monetarypolicyreport@mail.cbr.ru](mailto:monetarypolicyreport@mail.cbr.ru).

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## SUMMARY

*From June through mid-September, the Russian economy evolved better than the Bank of Russia had forecast in the June Monetary Policy Report (hereinafter, the Report).*

*During this period, inflation was close to 4% amid a meaningful recovery in economy. In June, price growth rates increased markedly on the back of an accelerated pick-up in prices for some vegetables and fruit. However, this acceleration was temporary. Improvements in the agricultural market and a sustainable slowdown in the price growth for quite a number of non-food goods led to a resumed decline in inflation as early as July. In summer, annual growth in services prices stabilised close to 4%.*

*Annual inflation was 3.3% in August. Annual core inflation dropped to 3.0% from 3.8% in May. Other inflation indicators reflecting movements in prices, excluding the most volatile elements of the consumer basket, also declined. Average price growth rates in the economy also stayed on the downward track year-on-year, pointing to a steady reduction of the inflationary pressure: average annual inflation was 4.8% in August after 5.6% in May. Inflation expectations responded to the June inflation acceleration with a temporary pick-up, which was followed by a resumption in their decline. The unstable dynamics of inflation expectations, including their enhanced sensitivity to price dynamics in certain markets, remains a meaningful risk for inflation over the mid-term horizon. Better resilience of inflation expectations and their anchoring at levels allowing to keeping inflation close to 4% in the medium term may eventually take some time. In view of this, we attach much importance to the consistent character of the monetary policy aimed at strengthening households' and businesses' confidence in inflation's anchoring at low levels.*

*Exchange rate movements continued to contribute to price growth deceleration, though this trend gradually dissipated. Demand-side restrictions' contribution to the slowdown of price downturn amid economic growth and a gradual revival in consumer activity began to wear out. In July, the decline in household real incomes came to an end. This trend was supported by the on-going growth in real wages. In June through mid-September, consumer lending picked up slightly, saving ratio continued to reduce smoothly, and consumption of durable goods grew. However, according to Bank of Russia estimates, this process is a natural outcome of the current revival in economic activity and, moving in line with the economy, it does not produce any additional inflationary pressure.*

*As economic activity recovers, the quality of banks' credit portfolios will continue to improve gradually over the forecast horizon. This will allow banks to ease their requirements for borrowers and other non-price bank lending conditions, and expand lending activity further ahead. However, the consistent and measured easing of monetary policy will preserve incentives for saving in the economy. As a result, the transition from the savings to consumption behaviour model will remain gradual in the medium term.*

*In the second quarter, economic activity dynamics suggest a more robust recovery pattern for the Russian economy, which gradually spreads more evenly across the regions. Apart from consumer activity, the second quarter saw an on-going recovery in investment, which exceeded expectations noticeably. Investment demand was satisfied both by imports and domestic production. In addition, according to the estimates, investment activity was supported by large infrastructure projects. Given the revival of domestic demand, firms actively built up their inventories. The main contribution to the growing investment demand was made by increased imports, supported by exchange rate dynamics, and the fast accumulation of inventories as manufacturers remained optimistic about the further demand for their products. As a result, in 2017 Q2, GDP growth outperformed Bank of Russia expectations which led to the revision of the forecast*

of total output and its elements for 2017. Nonetheless, this has not influenced the Bank of Russia's perceptions of the Russian economy's growth factors in 2017 H2 and over the mid-term horizon.

Given the persistence of medium-term inflation risks linked to price fluctuations in global raw materials and commodity markets, the Bank of Russia's baseline scenario, as before, maintains conservative approach to the selection of oil price assumptions. The Bank of Russia analyses alternative developments within the framework of the scenario with rising oil prices and risk scenario, which assumes their sharp fall and overall downturn in the external conditions for Russia.

According to the baseline scenario, in 2017, GDP growth rates will be close to the potential level at 1.7-2.2%. In 2018, amid a deterioration in external conditions, economic growth will adjust for a short while (to 1.0-1.5%). However, this slowdown will not be long, given the economy's lower sensitivity to movements in commodity markets. Annual GDP growth will recover to 1.5-2.0% in the medium term. The economy's resistance to external shocks will be further boosted by the budget rule. Its transitional version has been implemented by the Russian Finance Ministry since February 2017. The possibilities of a higher growth, compared with estimates in the Bank of Russia's baseline scenario, will be predominantly shaped by the speed and scale of structural reforms and institutional changes in the Russian economy.

Considering the emerging structural shortage of labour resources, wages may produce a stronger inflationary pressure on the economy as the economic activity rebounds further. If the recovery in households' incomes proves more significant than implied by the baseline scenario, the transition from the savings to consumption behaviour model may accelerate, thus becoming another source of inflation risks. In this situation, the Bank of Russia's policy will seek to support savings incentives without hampering economic growth.

Based on the analysis of the current dynamics, inflation and economic activity forecast over the medium term horizon and the risk of inflation deviation from 4% (both upward and downward), the Bank of Russia Board of Directors decided to cut the key rate by 50 bp to 8.50% p.a. on 15 September 2017. During the next two quarters, the Bank of Russia deems it possible to cut the key rate further. While making its decision hereinafter, the Bank of Russia will assess the risks of inflation's material and sustainable deviation from the target, as well as consumer price movements and economic activity against the forecast.

# 1. MACROECONOMIC CONDITIONS

## External conditions

The external economic conditions were mixed for Russia in June-September 2017 and were shaped by a range of different factors. On the one hand, some positive trends were seen in economic dynamics. On the other hand, inconsistent publicity and an episodic increase in volatility in the global commodity and financial markets had an impact

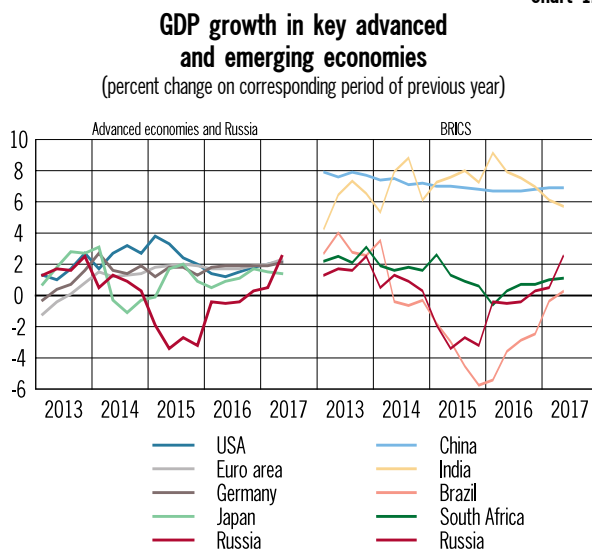
on the dynamics of the ruble exchange rate and risk premiums for Russia.

Global demand continued to recover and became slightly steadier. In 2017 Q2, growth in some of the largest global economies accelerated slightly both in developed countries and in a number of EMEs<sup>1</sup> (Chart 1.1). As a result, the Bank of Russia slightly improved its 2017 estimate of aggregate growth for Russia's trading partners compared with the June Report, from roughly 2% to 2.3-2.4%. Amid the acceleration in economic growth, inflation in Russia's trading partners remained close to target ranges. This contributed to moderate external pro-inflationary pressures remaining during the summer months, but did not have any significant impact on inflation dynamics in Russia.

These economic and inflationary trends did not lead to any substantial changes in the policies pursued by the largest central banks. In the USA, price growth picked up slightly, chiefly driven by the rapid acceleration in food inflation. However, prices still remained below target levels on the whole (Chart 1.2). In this context, the US Fed continued with its gradual normalisation of monetary policy. Following June's federal funds rate increase to 1.00-1.25%, according to statements by Fed officials, one further increase is still expected before the end of 2017. The intensive economic growth in the euro area is also creating pre-conditions for increased pro-inflationary pressure in future. It will be held in check by the marked appreciation of the euro, which has been accompanied by recovery processes in the economy. However, the pre-conditions for the ECB to normalise its monetary policy in the medium term still remain.

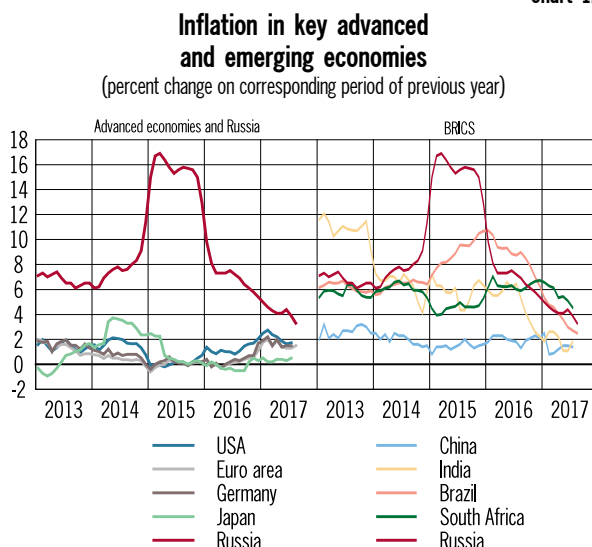
The recovery in global demand has had an effect on global raw materials and commodity markets. Upward trends dominated in oil price dynamics from June to mid-September, with notable fluctuations in certain periods. In addition to demand, this was aided by the reduction in global oil inventories due to the effects of the agreement be-

Chart 1.1



Sources: national statistics agencies, Bloomberg.

Chart 1.2

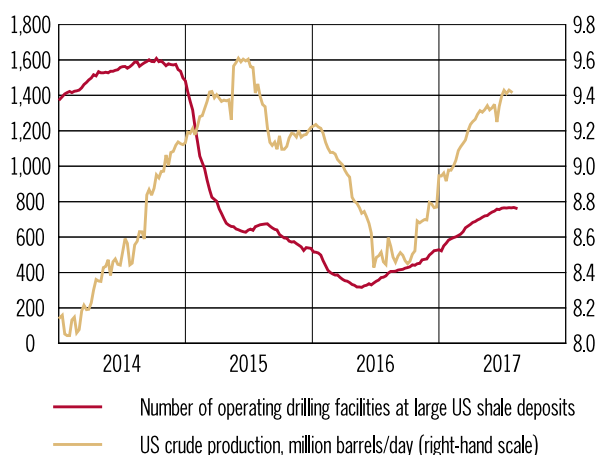


Sources: national statistics agencies, Bloomberg.

<sup>1</sup> See Abbreviations.

Chart 1.3

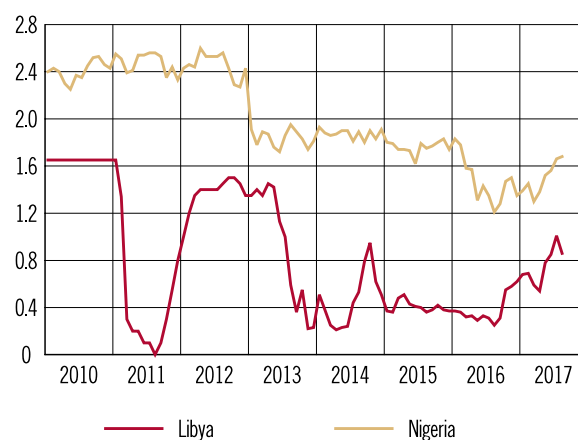
### Oil production in the USA (million barrels/day)



Sources: US Department of Energy, Baker Hughes.

Chart 1.4

### Oil production in Libya and Nigeria (million barrels/day)



Source: US Department of Energy.

tween exporter nations to restrict production. Another temporary factor that helped to buoy prices was the slowdown in oil production in the USA over the summer months amid more stable drilling activity and reduced productivity at certain shale deposits (Chart 1.3). Production is expected to continue to expand in the medium term, which may exert downward pressure on oil prices.

A number of supply-side factors had a restraining effect on prices in June-September. They were the slight increase in production, notwithstanding the oil production restriction agreement, by some countries that, for a long time, had exceeded their obligations (for example, Saudi Arabia)<sup>2</sup>, and the partial recovery in oil production in Libya and Nigeria (Chart 1.4). These factors did not result in a turnaround in oil price dynamics, but were merely the cause of a short-lived downturn in June-August. However, the second of these factors could pose risks to their future dynamics. The significance of this factor has been reduced in part by Nigeria's official statement at July's session of the Joint OPEC-Non-OPEC Ministerial Monitoring Committee regarding its willingness to sign the agreement in the near future. However, some uncertainty still re-

mains regarding the scale and speed with which supply from Libya will resume. As for the demand for energy supplies, another significant risk in future is a possible slowdown in China's economic growth, despite moderately optimistic estimates of the Chinese economy's outlook by a number of international organisations<sup>3</sup>.

The positive and negative factors that have had an effect on the commodity markets and the global economy from June to mid-September have on the whole offset one another. As a result, the Bank of Russia has left unchanged its outlook regarding oil price dynamics until the end of 2017 and in the medium term. As in the baseline scenario of the June Report, Urals crude prices are expected to remain close to current levels until the end of the year and average at roughly \$50 per barrel over the year. Oil price dynamics will continue to be a factor supporting growth in the Russian economy until the end of 2017.

The prices of other key Russian export goods also predominantly increased in June-September (Chart 1.5), as reflected by Russia's trade balance dynamics. However, price levels remained significantly lower than pre-crisis figures, with the excep-

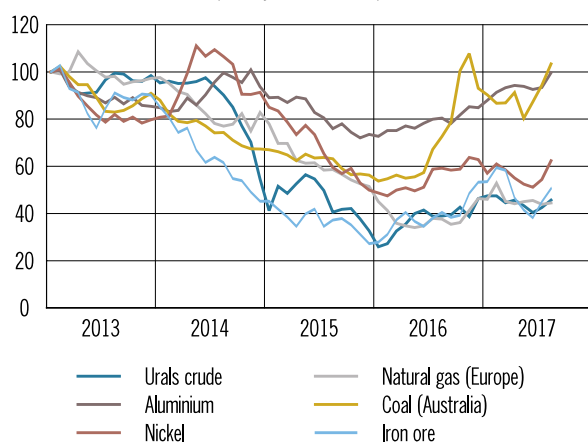
<sup>2</sup> According to estimates by the Joint OPEC-Non-OPEC Ministerial Monitoring Committee, the level of performance of oil production restriction obligations by OPEC and non-OPEC countries gradually fell over the summer months from 106% in May to 94% in July.

<sup>3</sup> In July, the IMF revised its 2017 annual GDP growth rates for China from 6.6% (April's estimate) to 6.7% YoY. This is in line with the estimates of other international organisations: the OECD forecasts China's annual GDP growth at 6.6% in 2017, and the World Bank forecasts it at 6.5%.



Chart 1.5

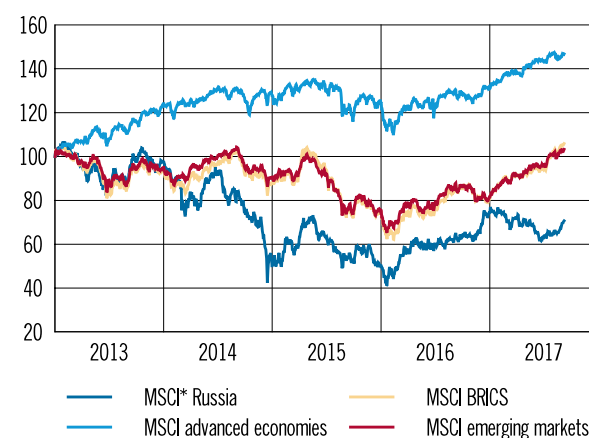
### World prices of Russian principal export commodities (January 2013 = 100%)



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

Chart 1.6

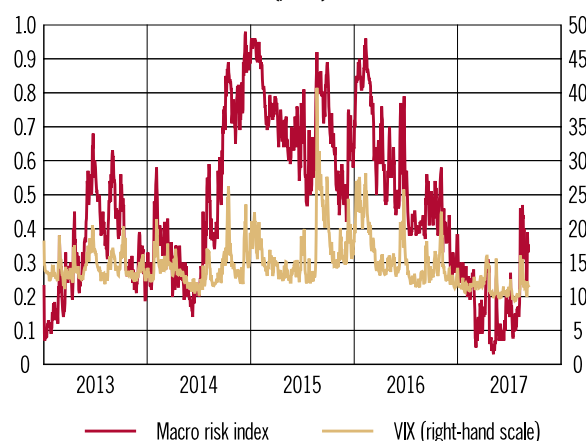
### Global stock indices (January 2013 = 100%)



\* See the Glossary.  
Source: Bloomberg.

Chart 1.7

### Indices of volatility and global financial market risk perception by investors (points)



Source: Bloomberg.

tion of coal and aluminium<sup>4</sup>. The positive effect of the price factor offset slowing exports in real terms, as reflected in both trade balance and GDP dynamics. In 2017 Q2, according to estimates, export quantities were lower compared with the previous quarter. This was in part assisted by contracted sales of oil and oil products amid oil production restriction obligations, among other things. Certain positions provided support for exports, in particular, gas, coal and wheat exports, and certain types of engineering products. At the same time, according to estimates, annual growth in imported goods increased in 2017 Q2, both in real terms and value terms, amid the strengthening of the ruble and improved economic activity. The expansion in imports was more due to investment goods than consumer goods. As a result, the negative contribution of net exports to GDP growth increased in 2017 Q2. The trade surplus grew slightly owing to the price factor, but this was not sufficient to offset the increased deficit in the balance of investment income and balance of services. As a result, in 2017 Q2 the current account balance shrank compared with

the same period last year (see Annex 'Dynamics of major items in the Russian balance of payments in 2017 Q2').

The growth in oil prices also caused global food prices to trend higher. According to FAO data, global meat, dairy and grain prices have demonstrated sustainable and considerable growth over recent months. However, the dynamics of global food prices do not pose any significant risks to Russia's internal prices in the short term, especially taking into account factors specific to certain foods markets (for example, the on-going high carryover grain stocks). Out of all of these positions, only growth in dairy prices (butter, milk powder) can have an effect in Russia, but, according to companies operat-

<sup>4</sup> Aluminium prices have seen stable growth since the end of 2015 and, in August, returned to pre-crisis levels (2013 levels). This is due to high demand from China and decreased supply in the London Metal Exchange, among other things. Coal prices have grown consistently and rapidly since May 2017 amid lower production following Cyclone Debbie in Australia, in addition to increased demand from Chinese cogeneration plants because of weather factors, lower hydroelectric power production due to flooding and falling supplies from Indonesia, etc.

Chart 1.8

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



\* Average CDS spread for emerging markets is based on the data for Brazil, China, Turkey, Mexico, and Malaysia.

Sources: Bloomberg, Bank of Russia calculations.

ing in the milk market, this effect will not be significant and may only be realised close to the end of the year.

From June through mid-September, upward trends dominated the global financial markets, but in some periods, mostly due to mixed signals from mass media, fluctuations occurred which had an effect on ruble exchange rate dynamics and risk premiums for Russia (Charts 1.6, 1.7). These fluctuations affected ruble exchange rate dynamics and risk premiums for Russia. Short-term oil price adjustments and publication of news regarding the tightening of certain parameters of the sanctions against Russia were accompanied by temporary increases in volatility and growth in risk perception indicators and risk premiums for Russia (Chart 1.8). However, like in the commodity markets, these fluctuations were predominantly short-term in nature and did not cause foreign investors to lose interest in Russian assets. At the same time, the recovery in oil prices contributed to the strengthening of the ruble and a reduction in the Russian CDS.

A small net inflow was recorded in private capital dynamics in 2017 Q2. This was primarily a result of an increase in other sectors' foreign liabilities by more than \$10 billion. Reserve assets grew by \$7.5 billion, in part due to banks repaying their debts to the Bank of Russia under foreign currency repos and the Russian Ministry of Finance buying foreign currency as part of the transitional mechanism of its budget rule (see Annex 'Dynamics of major items in the Russian balance of payments in 2017 Q2').

## Internal financial conditions

As in previous months, internal financial conditions in the Russian economy continued to be shaped by the Bank of Russia's moderately tight monetary policy aimed at keeping inflation close to 4%. The series of decisions by the Bank of Russia to reduce the key rate in March-June 2017 contributed to a gradual lessening in the tightness of banks' price lending conditions in the Russian economy. The signs accompanying these decisions regarding the likely timeframe for a future reduction in the key rate helped support market participants' expectations, raising the predictability of internal financial conditions. In addition, the increasingly sustainable economic recovery contributed to an improvement in borrowers' financial standing, an increase in banks' trust in their customers and a gradual easing, though rather slow, in non-price bank lending conditions.

The accumulated effect of the moderately tight monetary policy fed through to the slowing growth of stable components of consumer prices and the slight reduction in inflation expectations among Russian households. In these conditions, one of the most important tasks of the monetary policy is not only to maintain the achieved results in terms of inflation figures and inflation expectations, but also to foster conditions for stable economic growth without creating additional risk and imbalances overall and in certain sectors. Therefore, any easing in monetary policy must evolve gradually. The expectations of analysts and market participants, as well as households, must be carefully estimated and fine-tuned. A balanced approach to estimating expectations and adjusting monetary policy is particularly important amid a consistent and gaining momentum revival in economic activity, recovery in lending activity, and an abating households' inclination to save. As a result, a decision to keep the key rate unchanged in July at 9.00% p.a. was a necessary step to estimate how the decisions to reduce the key rate taken by the Bank of Russia pass through to the various segments of the financial market and the real sector of the economy.

Bank of Russia operations to manage liquidity helped keep short-term money market rates,

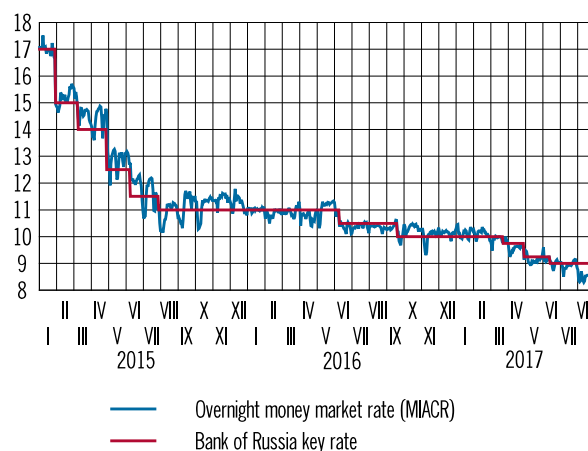
which change rapidly following an adjustment in the Bank of Russia's key rate (Chart 1.9), close to the key rate. Certain periods of heightened volatility and shifts in the interbank lending rates towards the lower bound of the interest rate corridor were linked to an uneven distribution of liquidity, and limited opportunities for the Russian money market to redistribute liquidity. The flow of customer deposits between several major banks changed liquidity situation at these banks. In addition, credit institutions that received these funds could not always place them in the money market due to their own internal risk management strategies and limited demand from other banks. As a result, some market participants increased the amount of funds borrowed from the Bank of Russia, while others, conversely, placed funds in deposits with the Bank of Russia. Against this backdrop, a structural liquidity surplus largely persisted in the Russian banking sector. The surplus contracted slightly on certain days in July and August, in part due to the increased amount of cash in circulation during the holiday season and as a result of tax payments by bank customers.

The cumulative effect of the cuts in the Bank of Russia key rate and expectations regarding a further change in the key rate caused the lending and deposit rates to continue to fall (Chart 1.10). However, as before, this process was gradual and relatively slow. On the whole, banks continued to adopt a conservative policy with regard to selecting new borrowers and cautiously expanded their types of lending as the situation improved in the real sector of the economy. As a result, bank lending conditions were eased primarily due to the fall in rates, and the easing of non-price conditions continued to be slow and mixed by type of lending and borrower category (Chart 1.11). According to bank and business survey data, current lending conditions, including price lending conditions, are perceived by participants as having more of a generally neutral impact on lending; that is, they hardly constrain lending, but neither do they encourage it.

The gradual reduction in the tightness of lending conditions led to a decrease in the size of the loan portfolio year-on-year (Chart 1.12). In the corporate segment, lending activity continued to be held back by banks' cautious approach when assessing borrowers and choosing new types of lending. The main factor supporting the recovery in retail lending

Chart 1.9

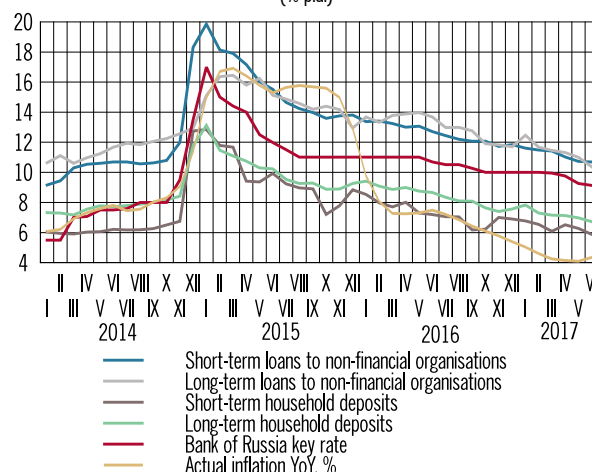
### Bank of Russia key rate and MIACR (% p.a.)



Source: Bank of Russia.

Chart 1.10

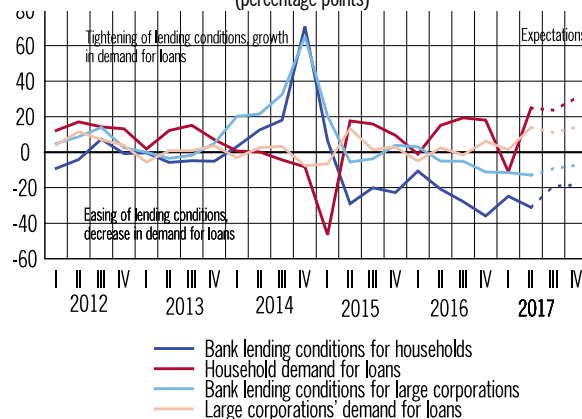
### Interest rates on bank ruble operations and Bank of Russia key rate (% p.a.)



Source: Bank of Russia.

Chart 1.11

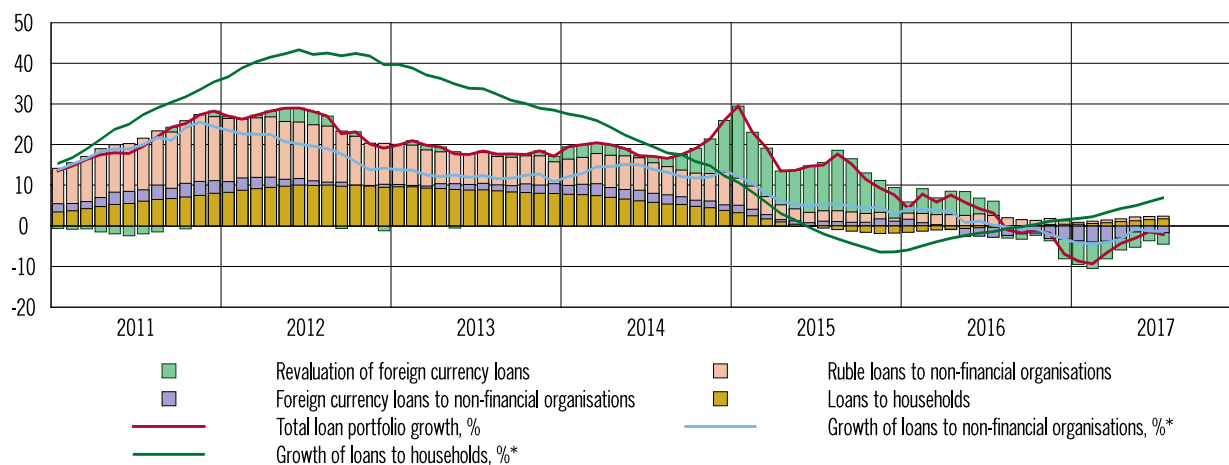
### Lending conditions and demand for loans indices (percentage points)



Source: Bank of Russia.

Chart 1.12

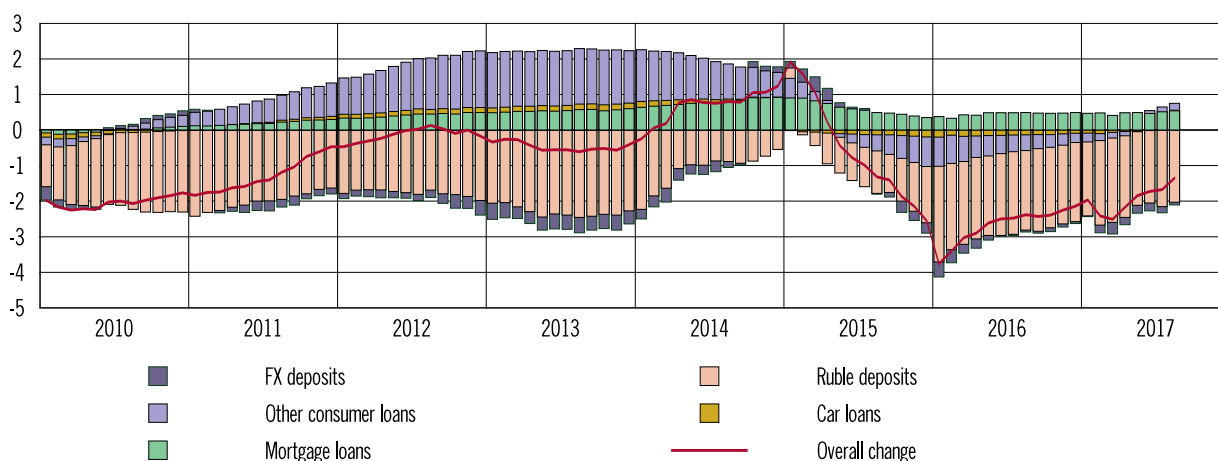
### Contribution of various components to annual growth rate of banks' loan portfolio (percentage points)



\* Adjusted for foreign currency revaluation.  
Source: Bank of Russia.

Chart 1.13

### Annual change in retail bank operations\* (trillions of rubles)



\* Positive values mean increase in net banking claims on households.  
Source: Bank of Russia.

continued to be mortgages. Other segments also saw signs of a revival, but they were not as pronounced. In the summer months, annual growth in unsecured consumer loans moved out of negative territory, and the reduction in car loans slowed down (Chart 1.13). Overall, the revival in lending observed in the economy is progressing slowly and gradually, and does not pose any pro-inflationary risks.

The improved situation in the economy and the gradual reduction in the tightness of lending conditions supported households' smooth transition from the savings to the consumption behaviour model in the first half of 2017. In addition to the recovery in consumer lending, this is also evidenced by other indicators such as the reduction in saving ra-

tios, growth in the consumption of durable goods and others (see box 'The savings and consumption household behaviour models'). The persistent appeal of deposit rates and the generally high saving ratios (which are higher than pre-crisis levels) and households' propensity to fund consumption mainly using their incomes<sup>5</sup>, as opposed to lending, is indicative of the gradual nature of the shift away from the savings model and points to the absence of pro-inflationary risks for the remainder of 2017.

<sup>5</sup> This conclusion is based on research into household consumption dynamics using microlevel data (see box 'Household consumption dynamics: a microlevel view' in Monetary Policy Report, No. 2 (18), 2017).

## The savings and consumption household behaviour models

The signs of Russian households transitioning from the savings to the consumption behaviour model, as noted in the June Report, were observed as early as the first half in 2017. However, according to Bank of Russia estimates, this process has been gradual and does not show signs of households returning to the behaviour model observed in the pre-crisis period (from 2012 to the end of 2014).

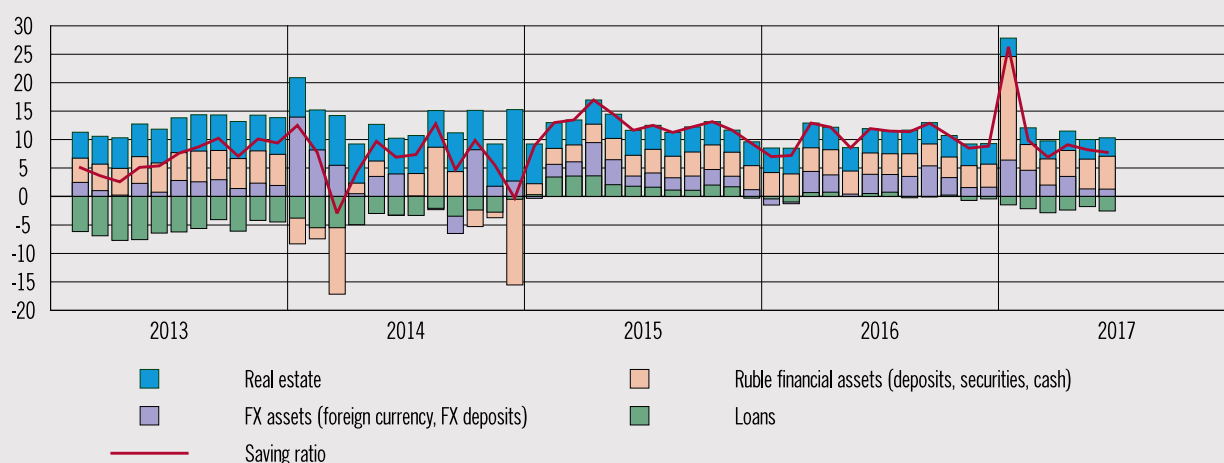
In investigating the consumption model, one of the most important and interesting questions in general is how to identify when the switch occurs from the savings to the consumption behaviour models and vice versa. Household behaviour models can be defined in various ways. A savings model can be defined on an aggregate level as when the saving ratio in the economy is positive. Household behaviour models can be defined less strictly based on the dynamics of a range of indicators. An analysis of such indicators in 2015 suggested evidence of Russian households transitioning from the savings model to the consumption model.

According to the first, stricter, definition, in recent history, Russia's household behaviour model has always been savings-based. However, this situation is not characteristic of all countries. For example, at various times negative saving ratios have been observed in Denmark, Finland, Estonia, Australia and New Zealand<sup>1</sup>, so we can speak of temporary household transitions to the consumption behaviour model in these countries according in the 'strict', or literal, sense.

At the same time, according to the second definition, we can speak of a gradual transition in the opposite direction from the savings model to the consumption one. In 2017, the saving ratio<sup>2</sup> decreased compared with 2015-2016. However, the decrease was gradual and households are still saving more than before the 2015-2016 crises (Chart 1.14). The squeeze in saving ratio was aided by the revival in the consumer lending market. However, the contribution to saving ratio from the increase in households' debt to banks is still low compared with the pre-crisis period, while the growth in deposits is still exceeding the increase in household lending, creating a net inflow of funds from households to banks.

Chart 1.14

Savings ratio elements (seasonally adjusted)  
(%)



Sources: Rosstat, Bank of Russia.

<sup>1</sup> Based on OECD data for the period 1995-2016.

<sup>2</sup> The saving ratio is the ratio of savings to household disposable income over a specified period of time. The 'ruble-denominated assets' component includes changes in households' and individual entrepreneurs' deposits, and the securities and cash-in-hand of households. The 'foreign exchange assets' component includes changes in households' and individual entrepreneurs' deposits in a foreign currency, expenditure on purchasing foreign currency (less sales), and changes in investment in precious metals. The 'loans' component includes changes in households' and individual entrepreneurs' debts to banks (with the sign reversed). The 'real estate' component includes real estate purchases in the Russian primary market and abroad.



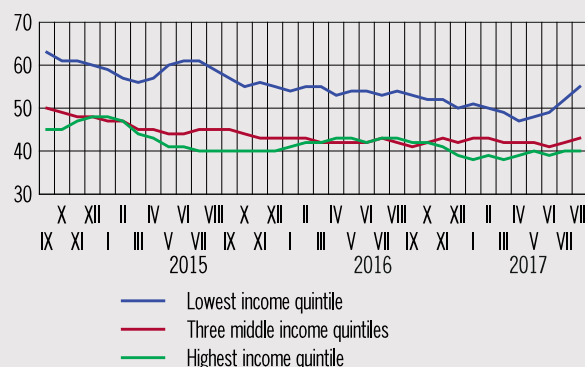
Other indicators that indirectly point to a gradual change in the behaviour models include households' propensity to make major purchases<sup>3</sup> and the actual volume of such purchases. From the end of 2016 to early 2017, consumers started to consider it a more opportune time to engage in large-scale spending. According to Public Opinion Foundation (FOM) data, households increased their large-scale spending, including on repairs and tourist trips. In addition, in 2017 Q2, the sales of durable goods – household appliances and furniture – stepped up and new vehicle sales started to recover. Despite the above, the number of vehicles sold still remains significantly lower than in 2014. Weak growth in vehicle sales following a substantial downturn in 2014-2016 seems likely to point to the realisation of deferred demand by households.

From a monetary policy perspective, in the savings household behaviour model it is of paramount importance that consumption growth becomes less sensitive to falling interest rates, increasing income, and improving lending conditions. In periods of economic slack and heightened uncertainty in the economy, households are inclined to spend their income to reduce their debt burden or form precautionary savings, and not to increase consumption. This situation was characteristic of the behaviour of Russian households in 2015-2016, as noted in the June Report; lending during that period made a negative contribution to consumption, as households preferred to pay off debts.

The consumption of different groups of the population can change to varying degrees in response to monetary policy measures. This is supported by a number of economic studies for different countries<sup>4</sup>. Households with existing debt and with the lowest income levels are the most sensitive to changes in their income and their ability to borrow funds. For this group of households, adjustments in the cost of borrowing have the greatest effect on their ability to expand consumption, and often to simply keep it at previous levels. It is therefore possible to attempt to track the change in behaviour models based on adjustments in the behaviour patterns of low-income households.

According to FOM data, the low-income household group<sup>5</sup> in Russia actually has the highest and most volatile marginal propensity to consume<sup>6</sup> compared with other household groups (Chart 1.15). In 2015-2016, the behaviour of this household group was the same as for the population as a whole, which showed a preference to pay off loans or save 'for a rainy day'. Moreover, during this period, its marginal propensity to consume reduced more markedly than for groups with a higher income. However, in recent months, the low-income household group has been starting to exhibit a growing propensity to spend extra income on consumption, which could be a sign of the start of a transition from the savings model to the consumption model. Nonetheless, their marginal propensity to consume is still below 2014 levels.

Chart 1.15  
Propensity to consume by income group\*  
(%)



\* The proportion of respondents who answered 'to spend, including on current needs' to the question 'If you receive a sum of money totalling roughly two monthly incomes of your household, how would you prefer to dispose of this sum: to spend, including on your current needs, or to save?', adjusted for 4 months.  
Source: Public Opinion Foundation.

<sup>3</sup> Indicators such as the index of favourable conditions for major purchases (Rosstat), estimate of the favourable time for major purchases estimate (FOM) and other survey indicators can be used as measures of households' propensity to make major purchases.

<sup>4</sup> Di Maggio M., Kermani A., Ramcharan R. (2014) Monetary Policy Pass-Through: Household Consumption and Voluntary Deleveraging; Keys B.J., Piskorski T., Seru A., Yao V. (2014) Mortgage Rates, Household Balance Sheets, And the Real Economy; Luettkie R. (2015) Transmission of the Monetary Policy with Heterogeneity in Household Portfolios; Sufi A. (2015) Out of Many One? Household Debt, Redistribution and Monetary Policy during the Economic Slump; Agarwal S., Chomsisengphet S., Mahoney N., Stroebel J. (2015) Do Banks Pass Through Credit Expansions to Consumers Who Want to Borrow?; Cloyne J., Ferreira C., Surico P. (2016) Monetary Policy When Households Have Debt: New Evidence on the Transmission Mechanism; Hedlund A., Karahan F., Mitman K., Ozkan S. (2016) Monetary Policy, Heterogeneity, and the Housing Channel; Auclert A. (2017) Monetary Policy and the Redistribution Channel.

<sup>5</sup> The lowest quintile of the population distributed by income level.

<sup>6</sup> Measured as the proportion of 'To spend it, including on day-to-day needs' responses to the question 'If you were to receive a sum of money equal to roughly two months' income for your family, what would you choose to do with it – to spend it, including on day-to-day needs, or to put it aside and keep it?', according to FOM survey data.

Furthermore, in the first half of 2017, the low-income group demonstrated a growing willingness to take out loans<sup>7</sup>, up to 2014 levels, but in August this figure fell once again. It is still too early to speak of this growth being sustainable or any trend of households returning to increased consumption through lending.

Thus, the observed process of transitioning from the savings behaviour model to the consumption behaviour model is taking place relatively smoothly. Amid the increase in goods and services production, and the stable situation in the labour market, it does not entail any short-term risks to price and financial stability.

<sup>7</sup> Measured as the proportion of 'Yes' responses to the question 'Do you or members of your family intend to purchase something on credit or to take out a bank loan over the next 12 months?' according to FOM survey data.

## Economic conditions

The real sector of the economy continued to recover. Estimates based on a wide range of economic indicators demonstrate that the recovery is becoming more even across the regions (see Annex 'The economic situation in Russian regions'). However, broken down by economic industry, the recovery is still unstable. This is in part due to the presence of weighty structural limitations posed by existing capacity and signs of the labour market tightness.

In 2017 Q2, recovery processes turned out to be somewhat more intensive than expected by the Bank of Russia (Chart 1.16). Year-on-year GDP growth was 2.5% after 0.5% the previous quarter, exceeding the Bank of Russia's estimate published in the previous Report (0.9-1.3%) and the subsequent information and analytical commentary on the economic situation in July (1.3-1.5%).

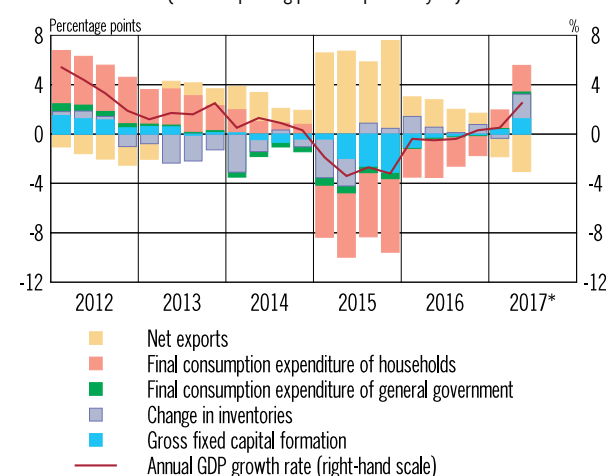
According to Bank of Russia estimates, one of the reasons for the sharp acceleration in GDP growth was the recovery in inventories. This was aided by continued positive expectations among industrial businesses for a large part of Q2 regarding future demand for their products<sup>6</sup>. Another important factor buoying GDP dynamics was the faster than expected revival in investment activity. According to Rosstat data, in 2017 Q2, annual fixed capital investment growth rapidly accelerated to 6.3% from 2.3% the previous quarter (Chart 1.17). Investment demand was partially satisfied through imports of machinery and equipment amid the strengthening

of the ruble. Specific one-off factors<sup>7</sup> in certain sectors also contributed to this. As a result, in Q2, the output of domestically produced engineered products increased. In addition, in Q2, the amount of construction work significantly expanded, in part due to the implementation of a number of major government-backed investment projects (construction of the Kerch Strait Bridge, the Power of Siberia gas pipeline, and other projects).

Due to the factors mentioned above, in 2017 Q2, economic activity dynamics were far better than expected, contributing to aggregate annual output dynamics and leading to an upward adjustment in annual dynamics estimates for Q3 and 2017 as a whole. However, quarter-on-quarter estimates remained the same. As a result, the Bank of

Chart 1.16

### GDP growth structure by expenditure (on corresponding period of previous year)



\* 2017 Q2 - Bank of Russia estimate of expenditure.  
Sources: Rosstat, Bank of Russia calculations.

<sup>6</sup> According to 'Russian Industry in July 2017' and 'Industry Optimism Index of IEP – August 2017' surveys prepared by the Laboratory of market survey at the E.T. Gaidar Institute for Economic Policy (IEP).

<sup>7</sup> Such as the renovation of ambulance and school bus fleets in accordance with Government Order No. 981-r, dated 23 May 2017, and the transition to new cash register equipment in accordance with Federal Law No. 290-FZ, dated 3 July 2016.

Chart 1.17

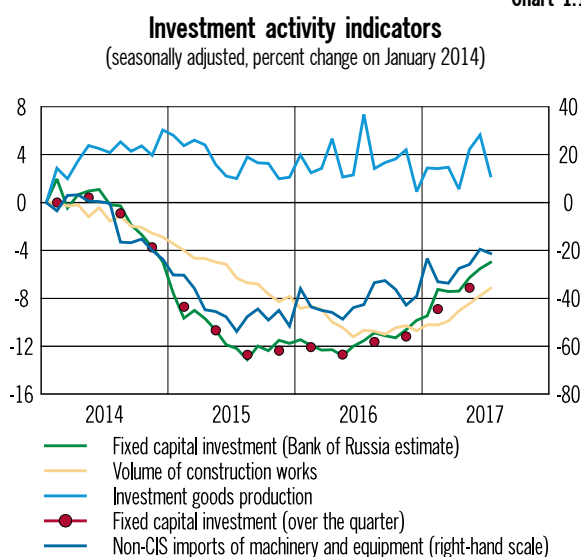
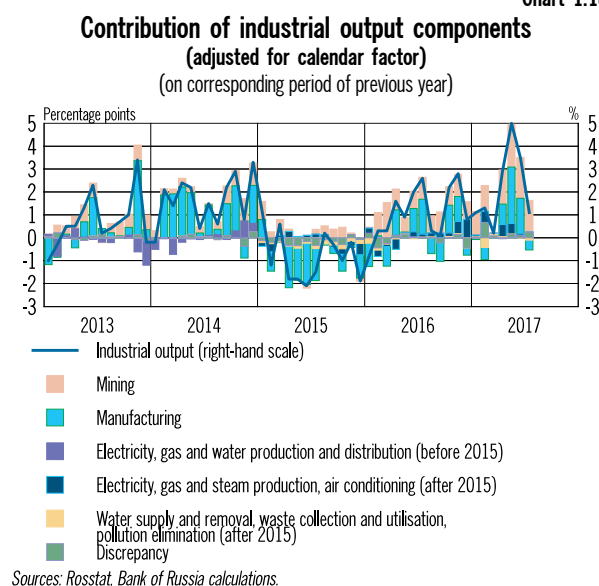


Chart 1.18



Russia's outlook for future economic dynamics was generally unchanged. The data for July confirmed that there were no grounds to change the assumptions of the forecast. In July, the effects of a number of factors buoying economic and investment activity in Q2 came to an end. First, by the end of Q2, companies began to view the inventories accumulated in anticipation of growing demand for their products as excessive<sup>8</sup>. This partially reduced their incentives to further increase output and led to a slowdown in the production of non-food consumer goods. Second, a number of government projects supporting the output of engineered products came to an end, contributing to a reduction in their output in July.

With external demand for certain product types weakening due to the strengthening of the ruble, production levels also fell in most export-oriented industries (chemical industry, metallurgy). The combination of these factors led to a reduction in the output of manufacturing industries, with the negative contribution to industry output dynamics peaking in July (Chart 1.18). The reduction in energy consumption for air conditioning also had a negative effect amid the cold weather recorded in a number of regions across Russia in the summer months. In addition, from mid-2016 onwards the potential of import substitution started to wane. For some types of food industries, this was due to

the near-total displacement of imports. For investment goods, it was due to the gradual exhaustion of price-based competitive advantages obtained as a result of the depreciation of the ruble at the end of 2014 (see Annex 'Growth of import substitution processes and increase in exports in 2014-2017'). As a result, the recovery in production activity slowed in July. Annual growth in industrial production was 1.1% following 3.5% the previous month.

For the remainder of the year, some uncertainty will remain regarding the extent to which the dynamics of companies' financial results will support their investment activity. In view of the volatility inherent in the dynamics of intra-year financial results, it is still too early to make a final conclusion. Considering these factors, according to Bank of Russia estimates, in 2017 Q3 annual growth in gross fixed capital formation will slow slightly compared with the previous quarter, to 4-5%, in part due to the high base effect of the previous year.

According to Bank of Russia estimates, the level of seasonally-adjusted unemployment for July was close to the natural level at 5.3%. The relatively rapid recovery of the economy contributed to increased demand for labour and supported wage growth (Chart 1.20). In these conditions, some segments of the labour market continued to show signs of a shortage of qualified workers. This triggered an increase in wages, but the size of the increase was generally relatively small and did not expand pro-inflationary pressure. Going forward, wage growth will support the implementation of the Russian Gov-

<sup>8</sup> According to 'Russian Industry in July 2017' and 'Industry Optimism Index of IEP – August 2017' surveys prepared by the Laboratory of market survey at the E.T. Gaidar IEP.



## The impact of international labour migration on real wage dynamics in Russia

The recovery of economic activity in Russia has been accompanied by renewed growth in real wages. If wage growth consistently outstrips labour productivity dynamics, pro-inflationary risks could arise. The increase in wages is being buoyed by the limited labour supply, which is the result of demographic factors. These limitations may in part be mitigated by an inflow of foreign labour.

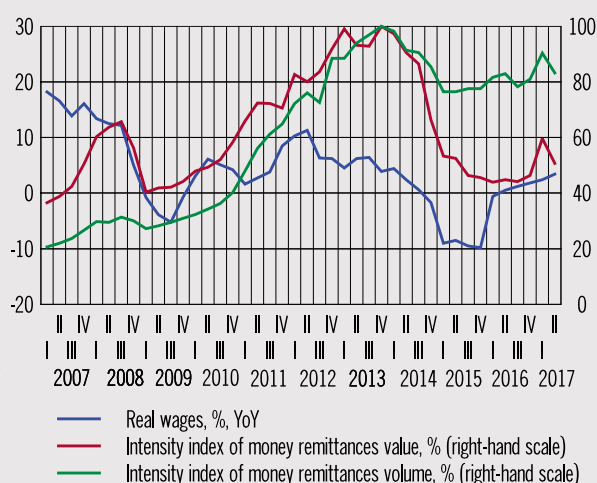
The intensity of migration is having a constraining effect on real wage dynamics. According to estimates, real wages in industries with a relatively high proportion of low-skilled labour are most sensitive to international migration; these are trade, construction and agriculture.

Since information on international labour migrant numbers in Russia is relatively limited<sup>1</sup>, information on individuals' cross-border money remittances to CIS countries, whose citizens constitute the majority of labour migrants to Russia<sup>2</sup> (Chart 1.19), is used to estimate the impact of labour migration on the cost of labour in Russia.

The analysis of the migration's impact on real wages shows that real wage growth is positively correlated with business activity and negatively correlated with the index of migration intensity<sup>3</sup>.

Thus, an increase in migration intensity slows real wage growth, which in turn reduces pro-inflationary risks. However, from the long-term perspective, the use of cheap labour reduces incentives to search for high performance technologies, which can weigh heavily on labour productivity.

Chart 1.19  
Real wages and money remittances to CIS states



Sources: Rosstat, Bank of Russia.

<sup>1</sup> The net migration growth indicator (the difference between people arriving in Russia and leaving Russia), as published by Rosstat, gives an approximate estimate of international labour migrant dynamics. It only reflects the change in migrant numbers without revealing the size of foreign labour reserves already accumulated. In addition, the indicator includes members of labour migrants' families that do not work, and it does not include illegal migrants. Rosstat also provides information on the number of officially employed foreign workers, but these data do not account for illegal employment.

<sup>2</sup> Data on both residents and non-residents were used (foreign citizens living or receiving an income in the territory of the Russian Federation for an uninterrupted period of 183 days over 12 months become residents).

<sup>3</sup> An error correction model was used to model the impact of international labour migration on real wages in Russia. The long-term correlation for real wages has been estimated using a two-stage least squares method. The real GDP growth, the index of individuals' remittances to CIS countries, and net migration growth were used as instruments to index the intensity of remittances.

According to estimates, the 10 pp growth in the intensity index of cross-border remittances leads to a 0.9 pp reduction in real wage levels in the long term and a 0.18 pp reduction in the short term.

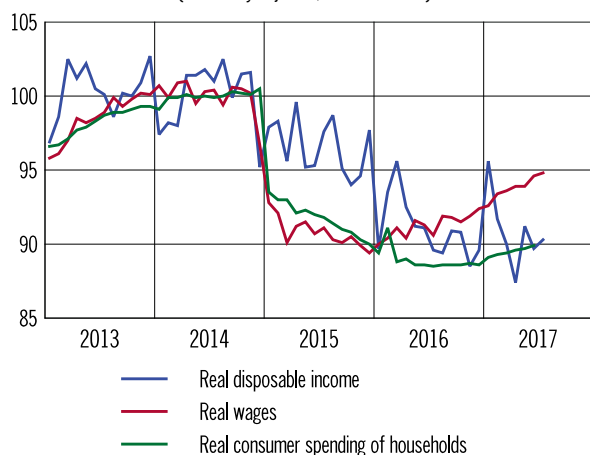
ernment's plans to index wages in 2017–2018 in line with the 'May decrees' and to index the wages of other public sector employees by 4% in 2018–2020. However, according to Bank of Russia estimates, these measures, combined with the Russian Government's systematic pursuit of the fiscal consolidation strategy and implementation of budget rules, will not lead to an increase in pro-inflationary pressure in the economy. Another factor constraining wage growth is still the relatively high intensity of labour migration to Russia (see box 'The impact of international labour migration on real wage dynamics in Russia').

The steady wage growth in part offset a decline in other incomes in May–July, as a result of which household real disposable income during this period remained virtually unchanged when adjusted for seasonal fluctuations. In these conditions, consumer activity continued to recover gradually (Chart 1.21). In May–July, annual growth in average retail trade turnover was roughly 1%, mainly as a result of increased household demand for durable goods. The gradual reduction in saving ratio accompanying this process, together with growth in the consumption of durable goods and a revival in consum-

Chart 1.20

### Real wages, disposable income and consumer spending of households

(seasonally adjusted, 2014 = 100%)

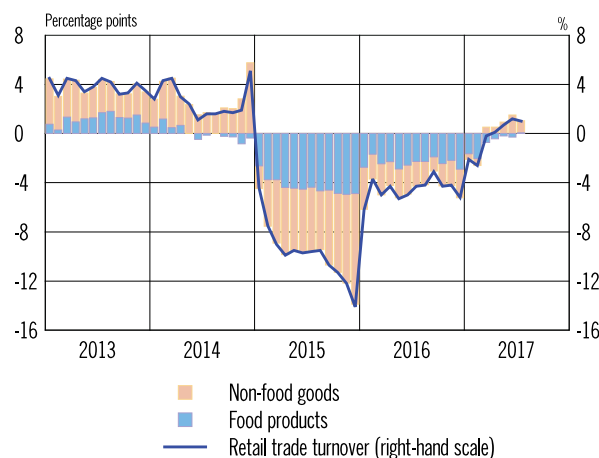


Sources: Rosstat, Bank of Russia calculations.

Chart 1.21

### Growth in retail trade turnover

(contribution to growth rate, on corresponding period of previous year)



Sources: Rosstat, Bank of Russia calculations.

er lending<sup>9</sup> suggest that households are smoothly transitioning from the savings behaviour model to a model implying more active consumption behaviour in response to changes in incomes and lending conditions. However, according to Bank of Russia estimates, this process is a natural outcome of the current revival in economic activity and, moving in line with the economy, it does not produce any additional pro-inflationary pressure. This is aided by factors both in the banking sector and in the real sector. In the banking sector, the speed of the switch to the consumption behaviour model is limited by the retention of stringent borrower criteria and other non-price conditions which generally characterise banks' conservative approach to building up lending volumes. In addition, the moderately tight monetary conditions shaped by the Bank of Russia's policy are helping to maintain the incentives to save and, more generally, the relatively high saving ratio in the economy. In the real sector, there are both supply and demand factors at play. First, the revival in consumer activity is restricted by the recovery in real household incomes, which has been slow and inconsistent in certain months. Second, according to estimates, the recovery in production activity is far surpassing the recovery in demand. Taking these factors into account, over the remainder of 2017, the revival in consumer activity will continue and will be moderate, as before. According to Bank of Russia estimates, annual growth in house-

hold expenditure on final consumption will be in the range of 3-4% in 2017 Q3, which is in line with the estimates provided in the information and analytical commentary on the economic situation in July<sup>10</sup>.

Taking into account new data on GDP dynamics in Q2 and factors restricting growth in aggregate demand in the short term, in 2017 Q3, annual GDP growth will be 1.7-2.2%, according to Bank of Russia estimates, which is slightly higher than in the previous Report (0.9-1.3%). In addition to investment activity's further revival, which is accompanied by the recovery in production, economic growth will be aided by a gradual increase in consumer demand. According to estimates, this will be buoyed by a further improvement in wage dynamics and, more generally, household income, and a gradual easing of lending conditions. However, the Russian Government's policy of fiscal consolidation will continue to maintain stability in government finances, without preventing a further revival in economic activity in Russia.

## Inflation

Amid the significant recovery in economic activity, in June-August inflation was close to 4%. The temporary increase in annual price growth from

<sup>9</sup> See box 'The savings and consumption household behaviour models'.

<sup>10</sup> Taking into account the faster than previously anticipated revival in consumer spending, in July's information and analytical commentary on the economic situation, the Bank of Russia made an upward revision of its estimated growth in household expenditure on final consumption for 2017 Q3 from 0.6-1.1% to 3-4% year-on-year.

## Risks in agriculture and their impact on inflation

In 2017, the time of the harvest campaign shifted due to unfavourable weather conditions, but backlogs are shrinking and the supply of seasonal produce is improving. The harvest forecast for key agricultural crops is contributing to the expectations of a further slowdown in food inflation this year (Charts 1.22, 1.23). For potatoes and root vegetables, in spring 2018 there may be a repeat of the situation that occurred in spring 2017, i.e. deterioration in the quality of harvested crops if the quality of the harvest deteriorates across the key producing regions. However, the final assessment of food inflation risks associated with the harvest collection and quality of the main agricultural crops will only be possible towards the end of this year, including statistics on household farms.

At present, there are generally no risks to food inflation from cereals and pulses, neither in the short term nor in the medium term. Cereals and pulse harvests have already exceeded the levels of the corresponding period last year overall in the Central, Southern, North Caucasus and Far Eastern federal districts. In the remaining districts, the gross harvest is still below last year's level, but increases in yields are being observed. Increases in yields are typical for most Russian regions. The carry-over balances from the 2016 harvest also mitigate the risks of price growth for cereals.

By 25 August 2017, the harvest rates for these crops were close to 2016 levels: the lagging behind by the harvest area relative to the previous year was 20%, but in terms of gross harvest (due to the higher yields), it was less than 1%. The gross harvest reached 84.4 million tonnes, with a yield of 37.1 centner/ha, which is 24% higher year on year.

Most experts believe that the gross cereals and pulse harvest in 2017 will surpass the previous year; more cautious forecasts are issued by the Russian Ministry of Agriculture (a harvest of 105-110 million tonnes). Analytical agency Prozerno forecasts that the harvest will be up to 130 million tonnes; analytical centre Sovecon puts it at more than 125 million tonnes; the Institute for Agricultural Market Studies – at up to 124-127 million tonnes; and the Russian Grain Union – at 120 million tonnes.

According to estimates<sup>1</sup>, the risks that food inflation will accelerate as a result of vegetable price dynamics, including potato prices, have not been realized this year (given the lack of natural anomalies during the mass harvesting period and acceptable harvest quality). The gross vegetable harvest shrank due to a shift in the growing season as a result of unfavourable weather conditions across all federal districts. For now, a fall in yield has only been recorded in three districts (the North Caucasus, Volga and Far Eastern federal districts), while an increase in yield has been recorded in all other<sup>2</sup> districts.

As of 25 August 2017, 27.4% less vegetables were harvested across the Russian Federation as a whole, with the yield falling by 4.7%.

Forecasts by the ministries of agriculture of the key producing regions, in which more than 1/3 of vegetable production is concentrated<sup>3</sup>, also do not point to any significant risks of a reduction in the harvest. Possible negative factors are offset by growth in the production of greenhouse vegetables<sup>4</sup>, the expansion of irrigated areas of field vegetables and developments in selection and seed production.

The total area of existing greenhouses in the Russian Federation is roughly 2,300 hectares. The proportion of greenhouse vegetables in the total production has risen from 4% in 2011 to 9.6% in 2016. As of 21 August 2017, the harvest of greenhouse vegetables grew by 24.2% and is continuing to show upward trends amid the on-going commissioning of new greenhouses.

<sup>1</sup> Estimates may be adjusted when the harvest comes to an end for agricultural organisations and statistical data are issued on the harvests of household farms, which account for the majority (on average 70%) of the gross harvest of these types of products.

<sup>2</sup> They accounted for more than 60% of the gross harvest for the Russian Federation in 2016.

<sup>3</sup> The Republic of Dagestan, the Moscow, Voronezh, Volgograd, Astrakhan and Rostov Regions and Krasnodar Territory.

<sup>4</sup> The production of greenhouse vegetables is less susceptible to weather risks and allows for higher yields. However, during periods when there are no seasonal products given insufficient greenhouse facilities, the proportion of greenhouse vegetables in total production can have an (upward) impact on price dynamics, since these vegetables are more costly to produce. According to the Russian Ministry of Agriculture's estimates, for adequate self-sufficiency in vegetables, 1,500 hectares of greenhouses need to be built in addition to the existing facilities.

If there are no natural anomalies, the gross potato harvest is estimated to be the same as in the previous year, because the harvest has only just entered the active phase<sup>5</sup> in the districts that account for more than 70% of the country's harvest (the Central, Volga and Siberian federal districts).

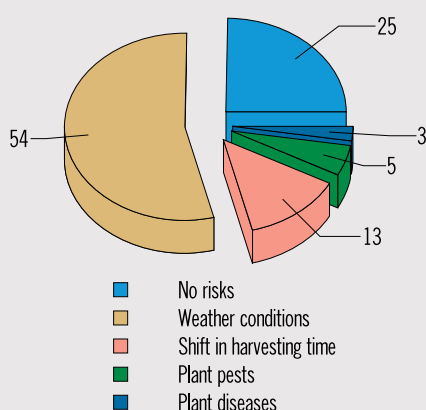
As of 25 August 2017, the potato harvest was 38% less year on year due to the shift in the growing season.

There is still a risk of deterioration in the quality of the harvest due to weather conditions and oversaturation of the soil<sup>6</sup>. This has been observed in nine regions accounting for roughly 16% of the gross harvest<sup>7</sup>. As previously, potatoes not meant for long-term storage tend to dominate in the southern regions of Russia (11.6% of the harvest across the Russian Federation)<sup>8</sup>.

In the medium term, the possible shortfall in the old potato harvest may be a factor behind the acceleration of price growth next spring (a similar situation is also possible for the vegetables in the 'borsch basket').

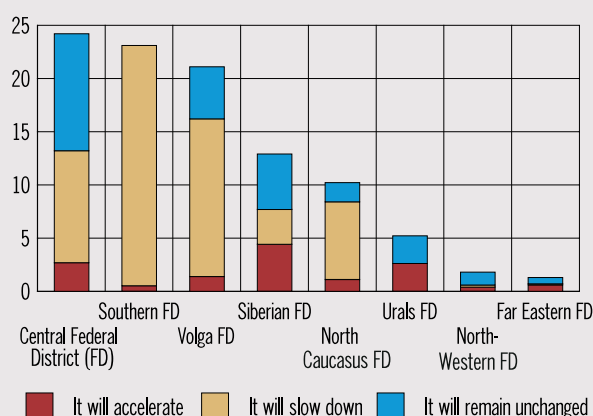
Most Bank of Russia regional branches (61.4%)<sup>9</sup> believe that the harvesting will slow food inflation over the next three months (27.3% believe that it will have no impact, 11.3% think that it will accelerate inflation). The main risks are the following: weather conditions and the shift in harvesting periods (delayed plant growth)<sup>10</sup>. 25% of Bank of Russia regional branches note that there is no risk to the harvest during the 2017 harvesting period.

Chart 1.22  
Harvesting risks in the Russian Federation (%)



Source: Bank of Russia.

Chart 1.23  
Regions' expectations regarding the pass-through of harvesting on changes in food inflation over three months ahead (%)



Source: Bank of Russia.

<sup>5</sup> The majority of leading regions, which account for more than 1/3 of the potato harvest, expect harvests at a level similar to or slightly higher than in the previous year.

<sup>6</sup> According to experts' estimates, potatoes harvested from oversaturated soil can be stored for no more than three months, so they are sold immediately after harvesting at a lower price.

<sup>7</sup> The Arkhangelsk, Leningrad and Novgorod Regions, the Mari El Republic and the Republic of Tatarstan, the Udmurt Republic, the Kirov, Nizhny Novgorod and Tyumen Regions.

<sup>8</sup> This has been a pressing issue for the last 10 years and can be explained by the presence of the quarantine pest (potato tuber moths) in the Southern and North Caucasus federal districts.

<sup>9</sup> 25% of Bank of Russia regional branches note that there is no risk to the harvest during the 2017 harvesting period.

<sup>10</sup> These statistics are calculated based on each region's contribution to the gross agricultural crop harvest.

4.1% in May to 4.4% in June was primarily caused by more rapid price increases for certain types of vegetables and fruit, and the low base effect of 2016, which was taken into account by the Bank of Russia when drafting its macro-economic development forecast in June 2017 and was noted among the possible risks to inflation in the June Report, as

well as press releases on monetary policy and commentaries on inflation.

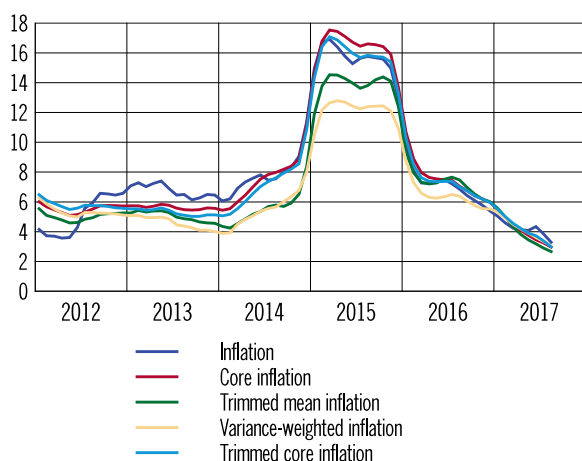
By July, the slowdown in inflation had resumed. In August, annual inflation fell to 3.3%. This was in part helped by the substantial downward adjustment in prices for vegetables and fruit (Charts 1.24, 1.25).

The main factor behind the downward price dynamics for vegetables and fruit was the arrival on the market of the new harvest in greater quantities than expected. However, a price drop for the main types of vegetables, including those in the so-called

'borsch basket' (cabbage, potatoes, carrots, beet-root and onions), was observed in all federal districts. According to data from surveys carried out by the Bank of Russia in the regions across Russia, price dynamics not only reflected the actual

Chart 1.24

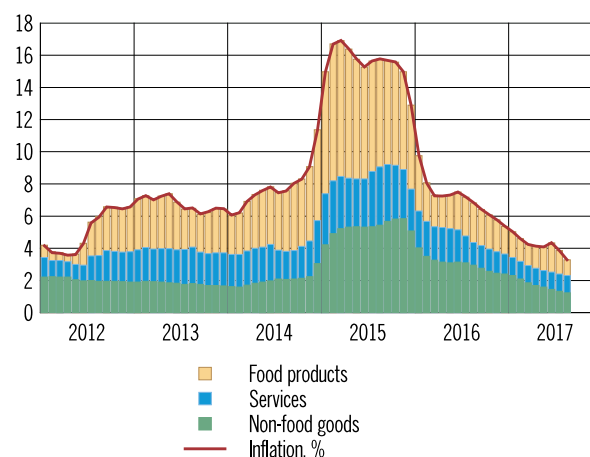
### Prices of consumer goods and services (percent change on corresponding period of previous year)



Sources: Rosstat, Bank of Russia calculations.

Chart 1.25

### Inflation and its components (percentage points on corresponding period of previous year)



Sources: Rosstat, Bank of Russia calculations.

## Volatility of vegetable and fruit price dynamics and inflation in 2017

Over the course of 2016 – first half of 2017, inflation slowed down considerably, and the range of its fluctuations shrank<sup>1</sup>. The price fluctuations decreased in magnitude for the main goods and services groups, including those goods and services that in recent years have made a significant contribution to inflation volatility (meat products, utility services and motor vehicles).

However, following the slump in 2016, volatility in vegetable and fruit price dynamics started to increase again in the first seven months of 2017 (Chart 1.26). As a result, according to estimates, the volatility of vegetable and fruit price dynamics<sup>2</sup> accounted for roughly 40% of inflation volatility overall (Chart 1.27), with this food product group accounting for roughly 3.9% of the consumer basket.

High price volatility is typical for the majority of vegetables and fruit. The main contribution to inflation fluctuations came from the positions representing the highest proportion of consumer spending, i.e. potatoes, cucumbers, tomatoes, apples, oranges and bananas<sup>3</sup>. This year, the range of potato and orange price fluctuations widened, while the magnitude of changes in prices for the other positions narrowed. While the dynamics of orange prices were shaped by conditions in the global market and exchange rate dynamics, potato price dynamics were predominantly determined by internal non-monetary causes. Demand for potatoes in Russia was met almost entirely by domestic field-based production, which is highly seasonal. The seasonal impact on prices is exacerbated by poor adoption of high-tech storage methods (especially in household farms, where roughly 80% of potatoes are grown), which results in generally poor harvest preservation (in terms of duration and losses) and a dependence on weather conditions during the harvesting

<sup>1</sup> On the relationship between inflation and volatility, see, for example: Ball L. *Why Does High Inflation Raise Inflation Uncertainty?* (1990). NBER Working Paper No. 3224. <http://www.nber.org/papers/w3224>. Kim D.H., Lin S.C. (2012) *Inflation and Inflation Volatility Revisited*. *International Finance*. Vol.15. Issue 3. P.327–345.

<sup>2</sup> Sample standard deviation of the relevant seasonally-adjusted price index.

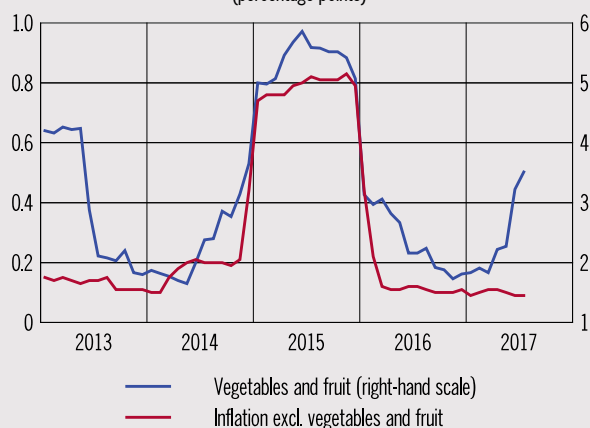
<sup>3</sup> In the CPI calculation for 2017, they accounted for between 0.314% and 0.539%.

period. The insufficient development of industrial potato processing (for chips, freezing, drying, etc.) also prevents seasonal effects from being levelled out.

The increased volatility of potato prices in the first half of 2017 was a result, on the one hand, of the good harvest and, on the other hand, the poor quality of the harvest. In 2016, the potato harvest was 7.8% higher than the 10-year average indicator (although it was less than in 2015). However, unfavourable weather conditions during the harvesting period worsened its quality, increased losses and shortened storage periods. The result of this was accelerated sales of potato stocks. In addition, retailers set minimal prices for lower-quality potatoes. As a result, up to the end of 2016, they cost less than the previous year; in January-February 2017, annual growth was moderate. Beginning in March, the exhaustion of domestically-produced stocks caused a rapid increase in the proportion of imports in the retail trade. At the same time, the reduction in potato stocks for personal use in household farms could have had an effect on the increase in demand for commercial potatoes. The consequence was a sharp acceleration in price growth, which reached 66.2% year-on-year in May, contributing 0.3 percentage points to annual inflation. The late sowing pushed back the harvesting schedule and the seasonal reduction in prices only began in July. At the same time, the price drop was more noticeable than usual this month; it was estimated at 19.6%, seasonally adjusted. Annual price growth fell to 23.9% and the contribution to inflation decreased to 0.1 percentage points.

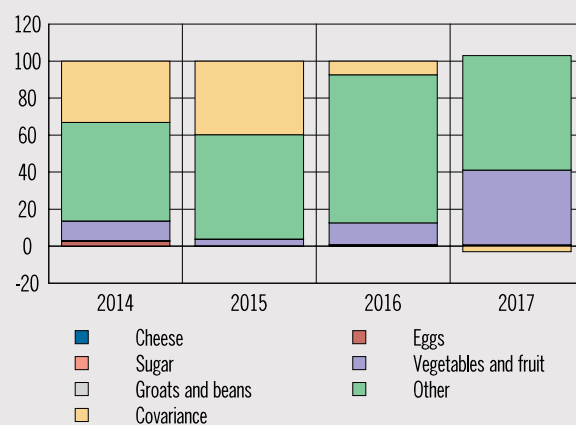
Similar non-monetary factors are causing wide fluctuations in prices for other vegetables. The high volatility of vegetable and fruit prices, which is intensifying inflation fluctuations, is weighing negatively on public sentiment, reducing the predictability of future price dynamics, and making it harder to keep inflation expectations low. Further development of storage facilities, industrial processing, and greenhouse farms will help level out price dynamics.

Chart 1.26  
**Volatility\* of inflation (excl. vegetables and fruit) and vegetables and fruit prices**  
(percentage points)



\* Standard deviation is based on the year-on-year seasonally adjusted sample.  
Source: Bank of Russia.

Chart 1.27  
**Structure of inflation variance\***  
(%)



\* Variance estimates are based on 12-month seasonally adjusted data, with respective periods ending in July.  
Source: Bank of Russia.

arrival on the market of relatively cheap domestically-produced products, but also improved expectations among agricultural producers with regard to the observed increase in the yields of a wide range of crops (cereals, pulses, potatoes) (see box 'Risks in agriculture and their impact on inflation').

As a result, in August vegetables and fruit fell in price by 0.9% compared with the previous year (in June, they actually increased in price by 11.6%).

Inflation expectations grew in response to June's spike in inflation for vegetables and fruit, indicating that they are still highly sensitive to shocks in the economy and in certain markets (Table 1.1). However, thereafter, as vegetables and fruit dropped in price, inflation expectations once again began to fall. Overall, from June to mid-August, inflation expectations receded. The decreasing inflation ex-



expectations continued to contribute to the slowdown in inflation.

Amid the overall decrease in inflation volatility, food prices' contribution to fluctuations in inflation grew markedly. The scale of such fluctuations largely depends on the effects of non-monetary factors. These include weather conditions for agricultural production and the availability of capacity to store and process agricultural products, among other things. However, government support measures could increase productivity in the agricultural industry, reduce harvests' vulnerability to unfavourable factors and, as a result, reduce the contribution of the volatile components of the consumer basket to inflation overall (see box 'Volatility of vegetable and fruit price dynamics and inflation in 2017').

In addition to the falling prices of vegetables and fruit, in August, non-food goods prices also made a significant contribution to inflation dynamics. In the summer months, the decrease in annual price growth for non-food goods, observed since mid-2016, persisted. In August, annual inflation for non-food goods was 3.4%. The gradual revival in consumer activity was accompanied by the recovery of output in industry and, therefore, did not hamper the downward dynamics of non-food goods prices.

Price growth was also constrained by the strengthening of the ruble in 2017. Periods of ruble depreciation in May-July only had an effect on those components of the consumer basket that are most sensitive to exchange rate fluctuations (vegetables and fruit, certain types of services). Annual price growth for services stabilised at 4.1% in August. The indexation of utility tariffs was in line with expectations. However, in the summer months, the number of services exhibiting price growth close to 4% increased slightly.

The average year-on-year price growth continued to fall, pointing to a stable reduction in pro-inflationary pressure in the economy. In August, average annual inflation was 4.8% (in May, 5.6%). The trend towards slowing inflation for goods and services continued, with the exception of administered prices and some of the most volatile positions (including vegetables and fruit), which suggests the weakening of short-term pro-inflationary risks. As a result, annual core inflation was 3.6% in August (in May, 3.8%). Other inflation indicators reflecting price dynamics excluding the most volatile compo-

nents of the consumer basket ('trimmed' indicators<sup>11</sup>) also decreased.

However, a number of risks (inflation overshooting 4% or settling below this level) remain. The medium-term risks of inflation exceeding the target are greater than the risks of inflation deviating steadily downwards. Key medium-term risks include the following.

First, global commodity market price dynamics affect changes in producer prices in mining sectors. At present, these price dynamics do not pose any significant risks. However, in future, the potential for accelerated growth in producer prices and an increase in producer price volatility could pose risks to consumer prices in Russia.

Second, the dynamics of inflation expectations are highly sensitive to pro-inflationary factors, even short-term ones. A significant increase in food prices or deterioration in external conditions, even if only fleeting, could temporarily interrupt downward trends in inflation expectations. In particular, this was confirmed by the increase in inflation expectations in June amid the surge in food inflation. It can take a long time to keep inflation expectations in check and gradually bring them nearer to the actual inflation level in the economy. As a result, ensuring that households and businesses have confidence in inflation remaining low in the medium term, influenced by the Bank of Russia's consistent policy, is of the utmost importance. This requires, among other things, active outreach and communications efforts.

Third, a further recovery in economic activity and improvement in the consumer sentiment among households could create incentives to accelerate the transition from the savings behaviour model to a model implying more active consumption in response to changes in incomes and lending conditions. A sharp and perceptible decrease in the saving ratio could become a source of pro-infla-

<sup>11</sup> 'Trimmed mean inflation' is an inflation series that has been 'trimmed' at each point to remove the 8 consumer basket positions with the highest values and the 8 positions with the lowest values.

'Variance-weighted inflation' is an inflation series that has been 'trimmed' at each point to remove the 10 consumer basket positions with the highest standard deviation values, calculated using data for the last 3 months.

'Trimmed core inflation' is inflation excluding prices for vegetables and fruit, meat and fats, sugar, alcohol, petrol, passenger transport services and utility services.

tionary risks. In addition, the presence of structural imbalances in the labour market, which could intensify as the economy grows further, could also lead to wage growth outstripping the increase in labour productivity, bringing with it additional pro-inflationary risks.

Taking these factors into account, and bearing in mind the anchoring of inflation close to 4%, the on-going reduction in inflation expectations, and the growth in the economy, on 15 September 2017 the

Bank of Russia's Board of Directors decided to cut the key rate by 50 bp to 8.50% p.a. During the next two quarters, the Bank of Russia deems it possible to cut the key rate further. While making its decision hereinafter, the Bank of Russia will assess the risks of inflation's material and sustainable deviation from the target, as well as consumer price movements and economic activity against the forecast.



Table 1

## Inflation expectations of economic agents

| Survey                                       | Expectation horizon | 2014 |      |      |      | 2015 |      |      |      | 2016 |      |      |      | 2017    |          |       |       |      |      |      |        |
|--|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|---------|----------|-------|-------|------|------|------|--------|
|  |                     | QI   | QII  | QIII | QIV  | QI   | QII  | QIII | QIV  | QI   | QII  | QIII | QIV  | January | February | March | April | May  | June | July | August |
| Inflation expectations (absolute), %         |                     |      |      |      |      |      |      |      |      |      |      |      |      |         |          |       |       |      |      |      |        |
| Households                                   |                     |      |      |      |      |      |      |      |      |      |      |      |      |         |          |       |       |      |      |      |        |
| Public Opinion Foundation                    | next 12 months      | 11.8 | 11.7 | 12.5 | 15.5 | 15.7 | 15.0 | 16.0 | 16.4 | 14.7 | 14.2 | 14.2 | 12.4 | 11.5    | 12.9     | 11.2  | 11.0  | 10.3 | 10.3 | 10.7 | 9.5    |
|  | next 12 months      | 8.1  | 9.0  | 9.6  | 14.4 | 13.8 | 12.2 | 14.5 | 12.8 | 7.4  | 6.7  | 5.9  | 5.1  | 4.6     | 4.4      | 4.0   | 3.7   | 3.7  | 4.0  | 4.1  | 3.7    |
| Professional analysts                        |                     |      |      |      |      |      |      |      |      |      |      |      |      |         |          |       |       |      |      |      |        |
| Bloomberg                                    | 2017                |      |      |      |      |      |      |      |      |      | 4.7  | 5.2  | 4.5  | 4.4     | 4.3      | 4.2   | 4.1   | 4.1  | 4.0  | 4.2  | 4.0    |
| Interfax                                     | 2017                |      |      |      |      |      |      |      |      | 5.7  | 5.5  | 4.9  | 4.7  | 4.7     | 4.4      | 4.2   | 4.1   | 4.0  | 3.9  | 4.1  | 4.1    |
| Thomson Reuters                              | 2017                |      |      |      |      |      |      |      |      |      |      | 5.1  | 4.6  | 4.1     | 4.3      | 4.1   | 4.1   | 4.1  | 4.0  | 4.1  | 4.0    |
| Financial markets                            |                     |      |      |      |      |      |      |      |      |      |      |      |      |         |          |       |       |      |      |      |        |
| OFZ-IN                                       | next 7 years        |      |      |      |      |      |      | 6.4  | 5.8  | 5.4  | 4.6  | 4.5  | 4.6  | 4.6     | 4.5      | 4.5   | 4.3   | 4.1  | 4.3  | 4.5  | 4.4    |
| OFZ-IN (without option adjustment)           | next 7 years        |      |      |      |      |      |      | 8.1  | 7.3  | 6.9  | 6.0  | 5.3  | 5.4  | 5.0     | 4.9      | 4.9   | 4.7   | 4.6  | 4.7  | 4.9  | 4.8    |
| Bond market                                  | next quarter        | 6.9  | 7.0  | 7.7  | 8.3  | 10.6 | 15.0 | 14.1 | 14.2 | 12.0 | 6.9  | 7.2  | 6.6  | -       | -        | 5.5   | -     | -    | 4.7  |      |        |
| Interbank market                             | next quarter        | 6.7  | 7.5  | 8.2  | 10.2 | 14.8 | 17.1 | 15.0 | 13.3 | 9.9  | 5.3  | 5.4  | 5.6  | -       | -        | 4.5   | -     | -    | 3.6  |      |        |
| Inflation expectations (balance of replies*) |                     |      |      |      |      |      |      |      |      |      |      |      |      |         |          |       |       |      |      |      |        |
| Households                                   |                     |      |      |      |      |      |      |      |      |      |      |      |      |         |          |       |       |      |      |      |        |
| Public Opinion Foundation                    | next 12 months      | 84   | 85   | 84   | 83   | 76   | 72   | 80   | 83   | 84   | 78   | 82   | 80   | 80      | 83       | 79    | 80    | 78   | 80   | 82   | 79     |
| Public Opinion Foundation                    | next month          | 79   | 82   | 76   | 77   | 68   | 60   | 71   | 78   | 72   | 68   | 70   | 76   | 72      | 72       | 68    | 71    | 66   | 68   | 73   | 67     |
| Enterprises                                  |                     |      |      |      |      |      |      |      |      |      |      |      |      |         |          |       |       |      |      |      |        |
| Russian Economic Barometer                   | next 3 months       | 26   | 26   | 32   | 70   | 32   | 20   | 28   | 48   | 14   | 38   | 36   | 46   | 42      | 20       | 22    | 14    | 26   | 20   |      |        |
| Retail prices (Rosstat)                      | next quarter        | 42   | 41   | 41   | 43   | 31   | 28   | 30   | 29   | 32   | 29   | 28   | 27   | -       | -        | 27    | -     | -    | 24   |      |        |
| Tariffs (Rosstat)                            | next quarter        | 6    | 5    | 2    | 5    | 7    | 6    | 2    | 2    | 5    | 5    | 0    | 0    | -       | -        | 4     | -     | -    | 3    |      |        |

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 deviation)
- inflation expectations deteriorated (less than 1 standard deviation)
- inflation expectations deteriorated (more than 1 standard deviation)

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

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

## 2. ECONOMIC OUTLOOK AND KEY RATE DECISION

The economic situation in Russia from June to the first half of September has not led to any fundamental changes in the Bank of Russia's medium-term outlook. The main factor contributing to the slight adjustment of the macro-economic forecast parameters for 2017 compared with the June Report was Rosstat's estimate of economic dynamics in Russia in the second quarter this year, which exceeded expectations. As a result, annual growth in the economy overall, as well as growth in individual components of aggregate demand in 2017, were adjusted slightly upwards in the three scenarios considered by the Bank of Russia – a baseline scenario, a scenario with rising oil prices and a risk scenario. However, the forecast for 2018-2019 has not been changed substantially.

The baseline scenario is based on conservative assumptions with regard to internal and external economic conditions. It serves as the basis for decision-making on the key rate and describes the most likely development of the economic situation in view of the latest information available when the Bank of Russia's forecast was prepared. The scenario with rising oil prices and risk scenario look at alternative developments with different combinations of forecast assumptions, both internal and external.

### Baseline scenario

The situation in the oil market from June to the first half of September evolved roughly in line with Bank of Russia expectations, which were used as the basis for the June Report, and did not lead to any significant adjustment in assumptions regarding oil prices in the medium term. As in the June Report, oil prices are expected to remain close to current levels (around \$50 per barrel) until the end of 2018 Q1. One of the most important factors contributing to uncertainty over the forecast horizon continues to be the prospect that the oil production restriction agreement will be extended beyond March 2018. This will depend on the correlation between global supply and demand in the energy market

which, in turn, will be shaped by a number of key factors. The main supply-side factor is intensifying competition in the energy market. Further sustained increases in oil production at shale deposits in the USA could create competition for the traditional types of oil and exert a strong downward pressure on oil prices. The renewed exports from Libya and Nigeria following a long-term decline in exports in connection with military conflicts in the two countries could also increase competition. All things being equal, this will reduce the positive effect of obligations being met under the agreement and decrease incentives for signatory states. As noted in the previous Section of this Report, an important supply-side risk factor is slowing growth in oil consumption in China, linked to uncertainty surrounding Chinese economic dynamics over the forecast horizon. It cannot be ruled out that this will produce excess supply in the oil market, supporting incentives to further cut oil stocks while the agreement remains in effect.

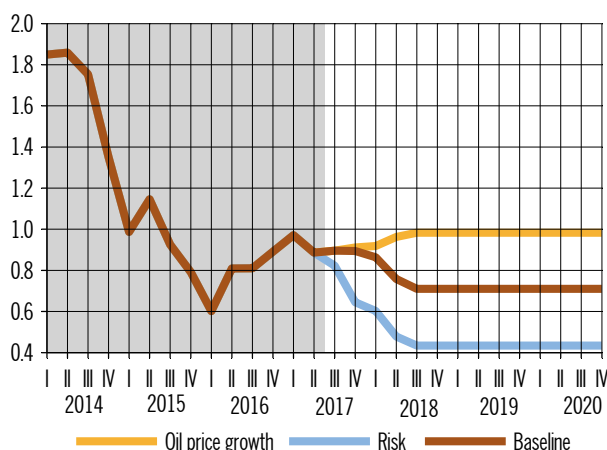
Taking these factors into account, and adopting a conservative approach to assessing external conditions over the forecast horizon, the Bank of Russia expects oil prices to decline to roughly \$40 per barrel in 2018 Q2 and to remain at this level<sup>1</sup> in 2019-2020 (Chart 2.1, Table 2.1).

Global demand is still expected to recover further. Given the slight acceleration in the dynamics of some of the largest economies in Q2, the Bank of Russia has improved its 2017 estimate of aggregate growth in Russia's trading partners compared with the June Report, from roughly 2% to 2.2-2.4%. In the medium term, the growth in Russia's trading partners will continue, but, according to estimates, it will not be accompanied by any significant pro-inflationary pressure and will not pose any additional risks for inflation in Russia. Limiting external pro-inflationary pressure will in part fall to the policies of some of the largest global central banks to keep inflation close to target levels.

<sup>1</sup> In real terms, i.e. at 2017 prices.

Chart 2.1

## Terms of trade



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

Source: Bank of Russia calculations.

The ECB's narrative regarding a change in its monetary policy in the near future has not changed, but trends in economic and inflation dynamics are creating the pre-conditions for a normalisation of monetary policy in the medium term. In view of the quantitative easing programme's extension until the end of 2017, and a number of other factors mentioned in the description of current external conditions in Section 1, the normalisation of monetary policy will more than likely be gradual. In the USA, according to statements by Fed officials, the federal funds rate is expected to be increased one more time – the third this year – before the end of 2017. In the medium term, it is also expected that the US Fed balance will gradually reduce. These measures will exert upward pressure on treasury bond yields and narrow their spread relative to the securities of developing countries and EMEs. In turn, this will set pre-conditions for a reduction in the investment appeal of EME assets, a decrease in the capital inflow into these markets and an increase in risk premiums. However, considering the gradual nature of the Fed's policy adjustment, this effect will be relatively small.

As in the June Report, the Bank of Russia expects CDSs to remain close to current levels (roughly 150 bp) until the end of 2017, and to increase temporarily in 2018 amid a drop in oil prices. Going forward, as the situation stabilises in the commodity markets, CDSs will return to current levels and remain there over the forecast period.

With the reduction in energy prices and in receipts from foreign economic activity in 2018, op-

portunities to build up foreign assets will reduce somewhat and the private sector's financial account balance will shrink. Other factors behind this decrease will be a reduction in companies' external debt repayments and a gradual improvement in Russia's investment appeal amid Russian economic growth (see Table 2.1, Annex 'Balance of payments forecast for 2017-2020'). In the medium term, the financial account balance of the private sector will stabilise at roughly -\$10 billion (Table 2.2). The inflow of foreign investment into Russia will in part be offset by increased demand from Russian companies for foreign assets.

Internal financial conditions in the Russian economy will continue to be shaped by the Bank of Russia's monetary policy, which is aimed at ensuring price stability, without creating impediments to stable economic growth. Taking these factors into account, and bearing in mind the anchoring of inflation close to 4%, the on-going reduction in inflation expectations, and the economic growth, on 15 September 2017, the Bank of Russia's Board of Directors decided to cut the key rate by 50 bp to 8.50% p.a. During the next two quarters, the Bank of Russia deems it possible to cut the key rate further. While making its decision hereinafter, the Bank of Russia will assess the risks of inflation's material and sustainable deviation from the target, as well as consumer price movements and economic activity against the forecast. In future, the aim of monetary policy will be to anchor inflation close to 4% and to fine-tune the expectations of various economic participants – professional analysts, businesses and households. A key aspect of managing expectations is not only maintaining their downward trends, but also reducing their sensitivity to fluctuations in certain markets and in the economy as a whole. An improvement in inflation expectations will create conditions for the easing of monetary policy. However, until inflation expectations reach a level consistent with anchoring inflation close to 4%, the Bank of Russia's policy will continue to be moderately tight.

As the tightness of monetary policy is lessened, nominal loan and deposit rates in the economy will fall in line with the Bank of Russia key rate and expectations that it will change further. On the one hand, this will reduce the cost of borrowing and create environment to expand lending. On the other hand, a fall in interest rates and, consequently, in

## Fiscal policy

In July 2017, the Russian Ministry of Finance published a draft document the Fiscal and Customs Policy Guidelines for 2018 and the Period of 2019 and 2020 (FPG), which sets forth and governs the application of the budget rule beginning in 2018.

Two important clarifications were included in the draft budget rule:

- the planned amount of borrowing may be reduced (increased) if actual non-oil and gas revenues exceed (fall short of) the forecast income (such a change may occur as a result of an adjustment to the forecast of macro-parameters);
- any deviation in the budget deficit not associated with a change in oil prices will be solely offset through an adjustment in the borrowing programme, and not in the parameters governing the use of sovereign funds. Thus, the volume of operations carried out by the Russian Ministry of Finance to buy/sell foreign currency will be determined solely on the basis of oil price dynamics. The implementation of the budget rule from 2018 will make it possible to maintain a stable level of government debt. Annual growth in federal debt will be limited by the amount of interest expenditure (0.8-1.0% of GDP), which is lower than the rate of nominal GDP growth in 2017-2020 set out in the FPG.

As part of the implementation of the budget rule beginning in 2018, there are plans to combine sovereign funds into a single fund. Linking federal budget expenditure to income parameters reduces uncertainty over the key budget parameter – the deficit – which will be close to 0.8-1% of GDP (the amount of interest expenditure) under various macro-parameters over the 2019-2020 forecast period.

The budget rule is geared towards accumulating budgetary resources and adhering to the fiscal consolidation strategy. The amount of interventions meant to fund the budget deficit may not exceed 1% of GDP, if the sovereign fund totals less than 5% of GDP. If the risk scenario is realised and there is a significant drop in oil prices, the Russian Government will not be able to intervene to fund the deficit with more than 1% of GDP if the sovereign fund is less than 5% of GDP, but will instead be forced to reduce its expenditure.

The budgetary expenditure plans for 2017-2020 take into account the implementation of the so-called ‘May decrees’ in 2017-2018, and the indexation of the wages of public sector workers in the categories not covered by the decrees by 4% beginning 1 January 2018 and in 2019-2020. The implementation of the budget rule and the conservative policy of public sector wage and social security benefit indexation will limit pro-inflationary risks in the medium term.

the alternative cost of consumption, could slightly reduce incentives to save. The combination of these two factors will contribute to the further emergence of incentives for households to transition from the savings to the consumption behaviour model, the signs of which have already been observed in the first half of 2017 (see Section 1). However, this process is expected to be gradual and will not give rise to any additional pro-inflationary pressure in the economy. The speed of the transition to the consumption model will continue to be restricted by the gradual easing of monetary policy, on the one hand, and by the preservation of the overall conservative approach towards the future among creditors and borrowers, on the other hand. This conservative approach will be manifested in banks’ persistently relatively high requirements for customer reliability and their vigilance with regard to risk assessment. In the event of emerging pre-conditions for imbalances accumulation across certain market

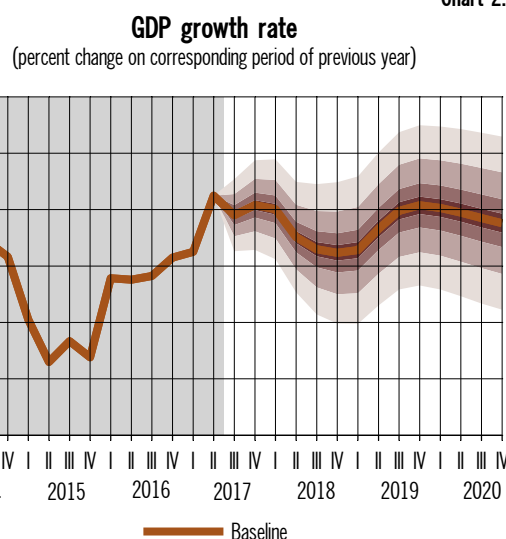
segments, the Bank of Russia will offset them using macroprudential policy measures. This combination of factors will contribute to a gradual and generally rather moderate recovery in lending activity, which will not trigger any pro-inflationary risks. According to the Bank of Russia’s baseline forecast, the growth in banking sector lending to the economy in 2017 will be 3-5%<sup>2</sup>, which is slightly lower than the forecast published in the previous Report. Further ahead, amid a gradual recovery in real incomes, lending activity is expected to expand at an annual rate of 5-7% in 2018 and 7-10% in 2019-2020, which is in line with the forecast published in the June Report.

<sup>2</sup> The estimates of the growth in lending to the economy provided here and below are estimates of the growth in banking sector claims on organisations and households, which are slightly broader than banks’ loan portfolios, as they also include bonds, promissory notes, shares, receivables linked to bank settlements, etc.

According to estimates, growth in lending to the economy will make the main positive contribution to growth in money supply, according to the national definition. The money supply will also continue to increase due to the dynamics of net general government borrowing from the banking system in connection with the need to finance the budget deficit. However, this component's contribution will gradually weaken as the Russian Government will continue to implement its fiscal consolidation strategy, which is aimed at gradually reducing the budget deficit in the medium term (see box 'Fiscal policy'). As a result, according to Bank of Russia estimates, the money supply will grow over the forecast period at a rate of 8-12%, gradually nearing the growth rates of lending to the economy in the medium term. The increase in money supply will be consistent with GDP growth, taking into account the gradual increase in the level of monetisation<sup>3</sup> in the economy, which is normal, according to the experience of other countries.

Revival in economic activity dynamics will continue. Taking into account the faster than expected economic growth in Q2, GDP growth forecast for 2017 has been adjusted slightly upwards compared with the June Report – from 1.3-1.8% to 1.7-2.2% year-on-year (Chart 2.2). This adjustment is linked to the dynamics of macro-economic indicators in 2017 Q2, while the Bank of Russia's outlook for economic dynamics and key factors shaping economic dynamics in the second half of the year and in the medium term generally remain unchanged. Assessments of future developments over the forecast period have generally not changed since the previous Report. Amid a slight deterioration in external conditions in 2018, economic growth will temporarily slow to 1.0-1.5%. The adjustment period will be relatively short, in part due to the Russian economy's reduced sensitivity to external shocks. Going forward, this will also be aided by the increased stability of government finances and the implementation of the system of budget rules (see box 'Fiscal policy'). In 2019, GDP growth will recover to 1.5-2.0% year-on-year, which is close to estimates of the Russian economy's medium-term potential, and

Chart 2.2



Source: Bank of Russia calculations.

will anchor at this level for the remainder of the forecast period.

The outlook for the structure and dynamics of aggregate output has generally remained unchanged compared with the previous Report. The main contribution to GDP growth over the forecast period will continue to come from increases in consumer and investment activity. Quantitative estimates of growth in GDP components have changed only negligibly compared with the June Report, except for exports and imports, which have been adjusted slightly upwards over the entire forecast period.

According to the baseline forecast, net exports' contribution to GDP growth will continue to be negative, since imports will grow consistently faster than exports. Annual growth in export quantities over the forecast period will remain moderate, but will be slightly higher compared with the previous Report. In 2017, it will be 3.5-4.0% year-on-year, after which it will slow down to 1.5-2.0% in the medium term. Expansion in the non-oil exports, including with respect to a number of positions that have already exhibited steady growth (certain types of agricultural products, and machinery and equipment) will continue to buoy exports. The extent of this expansion could be limited by the amount and nature of capacity in the Russian economy, together with on-going transportation problems (including the transportation of agricultural products).

Growth in imports in real terms will also be more solid than previously estimated by the Bank of Russia. The annual growth in imports in 2017 will be in the range of 13.0-13.5%. The noticeable change in

<sup>3</sup> Since 2000, monetisation of the Russian economy has grown on average by 2.5 pp per year, which is comparable with equivalent figures from other Eastern European countries. As of the start of 2017, the level of monetisation in Russia was roughly 59%, according to estimates.



## Indexation of public sector wages

In 2017-2020, the Russian Government plans to implement a series of measures in the sphere of social policy and public sector wages:

- Indexation of public sector wages pursuant to Decree of the President of the Russian Federation No. 597, dated 7 May 2012 (i.e. the 'May decrees'). As of 1 July 2017, measures to raise wages had not been implemented by roughly 16%. This is the average amount by which public sector wages in the social sphere must be indexed in order to reach the current key levels. According to Bank of Russia estimates, the amount of budget allocations required to accomplish these objectives in 2017-2018 is roughly ₹550-600 billion.
- The 4% indexation of wages and allowances for workers in the public sectors not covered by the decrees will take place on 1 January 2018 and may require ₹125 billion. In 2019-2020, wages will be indexed at the rate of previous-year inflation on 1 October of each year. A further ₹150-250 billion approximately will be required each year to implement these measures.
- Pensions, social benefits, educational grants and public statutory obligations will be indexed in line with inflation from the previous year (4% over the forecast period in 2018-2020).
- Gradually bringing the minimum wage in line with the minimum cost of living. Since 1 July 2017, the minimum wage has been ₹7,800, which is 21% below the minimum cost of living. Given that the minimum cost of living is regularly raised by at least the rate of inflation, the minimum wage will be indexed at a higher rate (on average, roughly by 15% per year). In 2020, the minimum wage is expected to be comparable with the minimum cost of living, at over ₹11,000. Gradually increasing the minimum wage and bringing it in line with the minimum cost of living in 2018-2020 will affect changes in certain social benefits and the parameters of public sector wages. According to Bank of Russia estimates, the total budget system allocations for these measures will be roughly ₹50-100 billion per year in 2018-2020, which will not have a noticeable effect on inflation.

Measures relating to social policy and public sector wages are factored in the budget system's expenditure forecast published in the draft document Fiscal and Customs Policy Guidelines for 2018 and the Period of 2019 and 2020 (FPG). The average annual growth in the federal budget expenditures will be 2.5% in 2017-2020. The average annual growth in allocations to dedicated expense items associated with the implementation of the Russian President's 'May decrees' is higher, at 4-7%.

the forecast for imports is linked to the fast growth in Q1 amid the strengthening of the ruble, in addition to persistent positive trends thereafter. In 2018, imports will slow down amid a slight downturn in external conditions and will continue to grow over the remainder of the forecast period, gradually accelerating following an increase in internal demand.

The value of exports and imports was revised perceptibly upwards compared with the June Report. With import volumes being adjusted more significantly than export volumes, estimates of the current account surplus were also reduced for the forecast period. In 2017, the current balance of payments surplus will be \$30 billion, after which it will decrease due to falling goods exports amid on-going increases in imports. In future, over the forecast period, the current account surplus will stabilise at roughly \$4 billion.

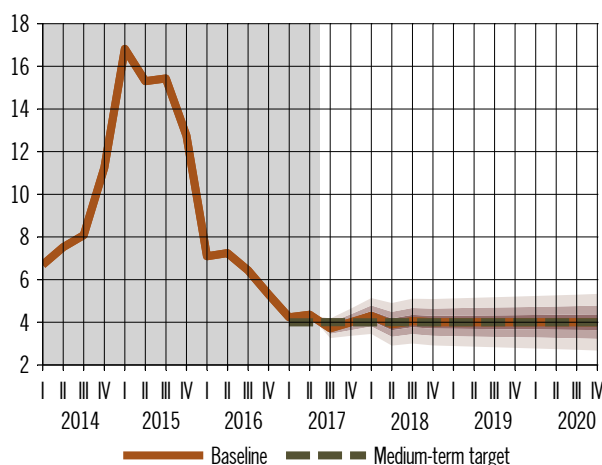
The increase in consumer and investment activity in the medium term will be accompanied by a gradual recovery in real incomes and improvements in sentiment and bank lending conditions in the economy.

The gradual easing of banks' requirements for borrowers, the expansion of lending types towards more risky segments and the easing of monetary policy will help revive lending activity. This revival, similar to the recovery of the economy as a whole, will be gradual and will not lead to the accumulation of excessive debts. It will expand opportunities for companies to fund new projects and will buoy investment demand. Annual growth in gross fixed capital formation in 2017 will be in the range of 4.0-4.5%, which is higher than the estimate in the previous Report, due to the significantly faster revival in actual dynamics in 2017 Q2. Future dynamics

Chart 2.3

**Inflation**

(percent change on corresponding period of previous year)



Source: Bank of Russia calculations.

are in line with the Bank of Russia's June forecast. In 2018-2019, gross fixed capital formation will slow down to 1.0-1.5% due to the influence of a relatively brief downturn in external conditions and companies' sentiment. Further ahead, companies will gradually adapt to the new equilibrium in the commodity markets, and growth in investment activity will again pick up at 2.3-2.8% year-on-year. These processes will be accompanied by a continued recovery in inventories. Their contribution to gross capital formation dynamics will continue to be positive for the majority of the forecast period, but will gradually decrease towards the end of this period.

Companies' on-going moderate optimism will support production activity in the Russian economy, and contribute to an increase in demand for labour. In turn, this will exert upward pressure on wages, both in nominal and real terms. Real wage growth in the medium term will continue at a rate of 1.5-2.3%, contributing to a recovery in household real disposable income. This will be supported by the 4% indexation of public sector wages from 1 January 2018, as set out in the Russian Government's budget plans, and also the completion of measures in 2018 pursuant to the Presidential Decree, dated 7 May 2012 (see box 'Indexation of public sector wages'). These measures could support an influx of workers into labour market segments associated with education, health care, and scientific research, which are currently experiencing the greatest effects of the labour market tightness. Labour migra-

tion from CIS countries, which will likely intensify as economic growth accelerates, will limit pro-inflationary pressure from wage growth in the economy as a whole.

Amid growth in real incomes, the revival in consumer demand will continue. According to the Bank of Russia's baseline forecast, the growth in household final consumption expenditures in 2017 will be 3.0-3.5%, which is slightly higher than the estimate in the June Report, amid the more confident recovery in consumer activity in the first half of 2017. Due to the temporary downturn in external conditions, the revival in consumer activity and investment activity will slow down in 2018, but will return to 2017 rates in the medium term. According to Bank of Russia estimates, the growth in household final consumption expenditure will be 2.0-3.5% in 2019-2020.

Households will continue to gradually transition from the savings behaviour model to the consumption behaviour model in the context of a recovery in real incomes and a gradual expansion in lending activity. However, the retention of relatively high real interest rates overall, aided by the monetary policy and banks' cautious approach to the easing of non-price lending conditions, will help maintain incentives to save. As a result, according to Bank of Russia estimates, the change in household behaviour model will take place gradually and will be supported by growth in incomes, and will not create any additional pro-inflationary pressures in the economy. By end-2017, the contribution of demand-side restrictions to inflation will be near zero and remain close to that range for the majority of the forecast period.

Amid the continuing recovery in economic activities and the economy's increased resilience to external shocks, the Bank of Russia will use monetary policy measures to keep inflation close to 4% (Chart 2.3). This will be reflected in the stabilisation of a wide range of indicators of price dynamics, including the year-on-year average inflation which will be close to 4% in 2017 and will be anchored at this level in the medium term. It cannot be ruled out that in certain periods price growth may be both slightly lower and slightly higher than 4% due to temporary factors. This is characteristic of economic indicators in general.

According to the Bank of Russia's baseline forecast, annual inflation will be 3.5-3.8% p.a. at the

end of 2017. Further ahead, price growth will remain close to 4%. In addition to the gradual nature of the recovery in consumer activity, this will be assisted by spending's persistently moderate contribution to inflation, in part due to the indexation of administered prices and tariffs for natural monopolies' services at a rate not exceeding 4%.

Keeping inflation close to 4% will contribute to a further reduction in inflation expectations. Before they are ultimately anchored at a stable and low level, the volatility of inflation expectations may increase at certain periods of time, in particular in connection with seasonal price increases for vegetables and fruit, and other short-lived shocks. Fine-tuning economic agents' expectations is required to stabilise inflation expectations over the forecast period. Among other things, this will be ensured largely by the Bank of Russia's information and communications policy.

## Scenario with rising oil prices

In the scenario with rising oil prices, the factors underlying external environment for Russia are such that they will cause demand, Russian export goods prices, and investor interest in Russian assets to increase faster than in the baseline scenario.

One of the key factors behind the more favourable oil price dynamics will be continuing incentives to extend the oil production restriction agreement beyond March 2018, which will support energy prices over the entire forecast period. Consequently, as was expected in June's scenario with rising oil prices, Urals crude prices will be roughly \$55 per barrel in 2018 and will gradually increase to \$60 per barrel over the remainder of the forecast period, having a positive effect on economic activity in Russia.

The recovery of global demand, which will be more robust than in the baseline scenario, will contribute to the revival in global commodity markets and demand for Russian exports, including goods from the non-commodity segment. This will buoy output in the Russian manufacturing industries. The positive contribution of the revival in external demand to Russian export growth will be slightly held back by the ruble exchange rate that will be stronger than in the baseline scenario, and the effects of restrictions on the production of oil and oil products in connection with the extension of the agreement.

In these conditions, annual growth in exports will be close to the levels of the baseline scenario at 1.5-2.0% in 2017-2020.

A more solid recovery in demand in the global economy could slightly increase the risks that inflation will accelerate in some of the largest countries. In this context, central banks may normalise their monetary policy faster than assumed in the baseline scenario. However, the maintenance of interest rates at relatively low levels by developed countries, the overall improvement in confidence in financial markets due to the influence of the relatively rapid recovery of the global economy, and downward Russian CDS dynamics amid growing energy prices will support investors' interest in Russian assets and contribute to the inflow of capital.

As a result, annual growth in Russian GDP will be close to its potential at 1.5-2.0% as early as 2018 and will stabilise close to this level in the medium term. With the ruble exchange rate stronger over the forecast period than in the baseline scenario, companies will have less problems in finding new sources of borrowing – both internal and external – which will support a recovery in investment and production activity in the economy. Consequently, annual growth in gross fixed capital formation will be 3.0-3.5% in 2018. Thereafter, with GDP growth stabilising, it will slow down slightly to 2.5-3.0%, but will remain higher than in the baseline scenario over the entire forecast period. The increased optimism in the real sector of the economy will help support real wage and income dynamics, contributing to a faster revival in consumer demand than in the baseline scenario. According to Bank of Russia estimates, growth in household final consumption expenditures will be in the range of 3.0-3.5% as early as 2018 and will stabilise at this level further.

As in the baseline scenario, consumer demand and investment demand will be partially satisfied through imported goods. According to Bank of Russia estimates, the increase in import quantities will outstrip the growth in export quantities to a greater extent than in the baseline scenario. Growth in annual imports will be 7.5-8.0% in 2018, slowing slightly to 5.5-6.0% in 2019-2020, as consumer activity stabilises.

Taking into account the estimated outlook for import and export dynamics, the contribution of net exports to economic dynamics will remain nega-



Table 2.1

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

(growth as % of previous year, unless indicated otherwise)

|  | 2016 (actual) | 2017      | 2018     |                  | 2019     |                  | 2020     |                  |
|--|---------------|-----------|----------|------------------|----------|------------------|----------|------------------|
|  |               |           | baseline | oil price growth | baseline | oil price growth | baseline | oil price growth |
| Urals price, average for the year, US dollars per barrel                             | 42            | 50        | 44       | 56               | 42       | 59               | 42       | 60               |
| Inflation, % in December year-on-year  | 5.4           | 3.5-3.8   | 4.0      | 4.0              | 4.0      | 4.0              | 4.0      | 4.0              |
| Inflation, yearly average  | 6.5           | 4.0       | 4.0      | 4.0              | 4.0      | 4.0              | 4.0      | 4.0              |
| Gross domestic product   | -0.2          | 1.7-2.2   | 1.0-1.5  | 1.5-2.0          | 1.5-2.0  | 1.5-2.0          | 1.5-2.0  | 1.5-2.0          |
| Final consumption expenditure  | -3.5          | 2.5-3.0   | 1.0-1.5  | 2.0-2.5          | 1.5-2.0  | 2.5-3.0          | 2.5-3.0  | 2.5-3.0          |
| – households   | -4.5          | 3.0-3.5   | 1.5-2.0  | 3.0-3.5          | 2.0-2.5  | 3.0-3.5          | 3.0-3.5  | 3.0-3.5          |
| Gross formation  | 1.5           | 6.0-7.0   | 1.0-2.0  | 4.5-5.5          | 2.0-3.0  | 2.5-3.5          | 1.5-2.5  | 2.5-3.5          |
| – gross fixed capital formation  | -1.8          | 4.0-4.5   | 1.0-1.5  | 3.0-3.5          | 1.0-1.5  | 2.5-3.0          | 2.3-2.8  | 2.5-3.0          |
| Exports  | 3.1           | 3.5-4.0   | 1.5-2.0  | 1.5-2.0          | 1.5-2.0  | 1.5-2.0          | 1.5-2.0  | 1.5-2.0          |
| Imports  | -3.8          | 13.0-13.5 | 2.0-2.5  | 7.5-8.0          | 3.0-3.5  | 5.5-6.0          | 4.0-4.5  | 5.5-6.0          |
| Money supply in national definition  | 9.2           | 8-11      | 9-12     | 10-13            | 9-12     | 9-12             | 8-11     | 8-11             |
| Lending to non-financial organisations and households in rubles and foreign currency | -0.6          | 3-5       | 5-7      | 7-10             | 7-10     | 8-11             | 7-10     | 8-11             |

Table 2.2

## Russia's balance of payment indicators\*

(billions of US dollars)

|  | 2016 (actual) | 2017 | 2018     |                  | 2019     |                  | 2020     |                  |
|--|---------------|------|----------|------------------|----------|------------------|----------|------------------|
|  |               |      | baseline | oil price growth | baseline | oil price growth | baseline | oil price growth |
| <b>Current account</b>   |               |      |          |                  |          |                  |          |                  |
| Balance of trade in goods  | 26            | 30   | 12       | 40               | 4        | 38               | 4        | 37               |
| Exports  | 90            | 102  | 84       | 112              | 78       | 113              | 80       | 115              |
| Imports  | 282           | 330  | 315      | 348              | 313      | 363              | 322      | 374              |
| Balance of services  | -192          | -228 | -231     | -236             | -235     | -250             | -242     | -259             |
| Exports  | -24           | -28  | -28      | -27              | -28      | -28              | -29      | -29              |
| Imports  | 51            | 55   | 58       | 61               | 60       | 63               | 63       | 65               |
| Primary and secondary income balance                             | -74           | -84  | -86      | -88              | -89      | -91              | -92      | -94              |
| Capital account  | -41           | -43  | -44      | -45              | -45      | -47              | -47      | -49              |
|  | -1            | 0    | 0        | 0                | 0        | 0                | 0        | 0                |
| <b>Current and capital accounts balance</b>                      | 25            | 30   | 12       | 40               | 4        | 38               | 4        | 37               |
| <b>Financial account (excluding reserve assets)</b>              |               |      |          |                  |          |                  |          |                  |
| General government and the central bank                          | -17           | -6   | -2       | -7               | -4       | 2                | -4       | 4                |
| Private sector (including net errors and omissions)              | 3             | 12   | 7        | 8                | 6        | 7                | 6        | 7                |
|  | -20           | -17  | -10      | -15              | -10      | -5               | -10      | -3               |
| <b>Change in reserve assets («+» – decrease, «-» – increase)</b> | -8            | -24  | -9       | -32              | 0        | -39              | 0        | -40              |

\* Signs according to BPM5.

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

tive. Amid the growth in oil prices, the trade balance and current account balance will grow. Growth in incomes in the economy will expand opportunities to acquire foreign assets which, combined with growth in FX receipts from export revenue, will contribute to an increase in the private sector's financial account deficit. It will be higher than in the baseline scenario and will gradually contract over the forecast period. The acquisition of foreign currency by the Russian Ministry of Finance will lead to the growth in international reserves over the whole forecast period. As in the baseline scenario, the fiscal policy will imply the conduct of fiscal consolidation. The federal budget deficit may reduce slightly faster than in the baseline scenario, due to significant tax receipts amid faster economic growth.

Inflation will be close to 4% over the entire forecast period, in part due to the Bank of Russia's monetary policy measures. With the ruble exchange rate stronger than in the baseline scenario, the Bank of Russia does not rule out a faster reduction of the key rate while keeping its monetary policy tight enough to maintain price stability in the economy and the sustainability of inflation expectations.

The expansion of lending activity, in these conditions, will be steadier than in the baseline scenario and will buoy consumption. According to Bank of Russia estimates, the growth in banking sector lending to the economy will be 7-10% in 2018 and 8-11% over the rest of the forecast period. In these conditions, households will continue to gradually transition from the savings to the consumption behaviour model. However, as in the baseline scenario, the transition will not be rapid and will not lead to any significant intensification of pro-inflationary pressures in the economy. This will in part be aided by continued incentives to save amid the gradual and measured easing of monetary policy. This will be accompanied by a gradual reduction in inflation expectations in the economy and an increase in the homogeneity and stability of this process. The dynamics of monetary aggregates, as in the baseline scenario, will ensure the required volume of transactions in the economy, in line with economic growth, taking into account the continued trend towards the gradual monetisation of the economy. Annual growth in money supply, according to the national definition, will outstrip the growth in lending to the economy in 2018-2019 amid the

continued existence of a budget deficit and will be 9-13%. Thereafter, with the deficit reducing gradually and lending activity stabilising, the growth in money supply will move closer to the rate of growth in lending to the economy and will be in the range of 8-11%.

## Risk scenario

The risk scenario describes developments in the Russian economy in the situation of a significant deterioration in the external environment. In this scenario, the main factors shaping external conditions will be a massive fall in oil prices and weakening of global demand.

The downward oil price dynamics will be shaped by the emergence of the medium-term risks mentioned above (see Section 1). Chief among these risks is fast growth in supply in the market due to a decreased likelihood that the oil production restriction agreement will be extended, a rapid and significant increase in oil exports from Libya and Nigeria, and increased oil production in the USA. As for demand-side risks, a slowdown in economic growth in China and in Chinese demand for energy continues to be a significant risk. As a result, oil prices will be roughly \$25 per barrel by mid-2018, which will weaken the positive effect of being a party to the agreement restricting oil exporters' production and will reduce incentives to extend the agreement further. This will prevent a recovery in oil prices, causing them to stabilise at roughly \$25 per barrel in the medium term.

The deterioration in external conditions will contribute to an increase in risk premium for Russia and will be accompanied by downward pressures on the ruble. In these conditions, a slight reduction in investor interest in Russian assets and an increase in the financial account deficit compared with the baseline scenario are possible.

Together with an increase in the cost of importing equipment and consumer goods, the deterioration in external borrowing conditions for businesses will weigh negatively on investment and consumer demand in the Russian economy. As a result, economic growth will slow down significantly up to the middle of next year and will be considerably lower than in the baseline scenario in the medium term. The cumulative effect of the past Russian econom-

ic recovery, the economy's increased resilience to external shocks, and the fiscal policy aimed at increasing the stability of government finances, in part through the implementation of the system of budget rules, will limit the negative impact of external shocks on Russian macro-economic indicators. Due to the above, annual GDP will come close to its potential level of 1.5-2.0% only in 2020 and, thereafter, will be shaped by structural factors.

If the risk scenario materialises, a tighter monetary policy cannot be ruled out.

## Medium-term forecast risks

The Bank of Russia's view on key medium-term forecast risks, as well as on the assumptions informing it, has not changed significantly compared with the June Report. As previously, the key risk factors for price stability in the Russian economy are the dynamics of inflation expectations and the speed at which households transition from the savings to the consumption behaviour model.

With regard to inflation expectations, their considerable inertia and relatively high sensitivity to temporary shocks in the economy as a whole, as well as in certain markets, especially vegetables and fruit, is a cause for concern. It may take time to anchor inflation expectations and gradually bring them nearer to actual inflation levels. In view of the above, the continuity and consistency of the Bank of Russia's monetary and public communication policy is especially important.

As noted, one of the factors exerting an upward pressure on inflation expectations is the volatility of

price growth for certain types of goods. With price growth in the economy stabilising at relatively low levels in the medium term, the dynamics of some of the most volatile components of the consumer basket are starting to have a greater impact on inflation fluctuations than previously, compared with other factors. To reduce the sensitivity of inflation and inflation expectations to temporary shocks in certain markets, the impact of a number of non-monetary factors – such as insufficient space to store vegetables and fruit, low-quality storage conditions, etc. – must be reduced, among other things. This may take a long time, and may also require active measures in the industrial and agricultural policies.

Ultimately, a future revival in economic and lending activity could cause household consumer confidence to improve faster and more consistently, than previously expected, and reduce incentives to save. A sharp and perceptible decrease in saving ratio could become a source of pro-inflationary risks. One factor intensifying this risk may become growing structural imbalances in the labour market. As a result, wage growth could start to surpass labour productivity growth, thereby giving rise to pro-inflationary pressure in the economy.

If these risks are realised, this may require that monetary policy be tighter than assumed in existing Bank of Russia scenarios. In addition, if signs of an imbalance start to emerge in certain segments of the market, the Bank of Russia will use macroprudential policy measures to offset them, thereby helping to maintain price and financial stability in the Russian economy.

## ANNEX

### Dynamics of major items in the Russian balance of payments in 2017 Q2

In 2017 Q2, the current account balance decreased<sup>1</sup>. Increase in the balance of investment income deficit and in the balance of services deficit was greater (by more than 10%) than increase in the trade surplus (Chart 1).

Growth in the volume of goods exports slowed from 36% in Q1 to 23% in Q2 amid reduction in the positive difference between global prices for most commodities this year and the previous year. Growing oil production in Libya and Nigeria, which were not subject to production restrictions, exerted downward pressure on oil prices. Natural gas prices in Europe were still higher than the previous year amid lower stocks, but the price recovery stalled along with oil prices. Global coal prices were held back by increased production in China, one of the largest producers. The downturn in positive annual price growth for metals was linked to slowing growth in business activity in industry world-wide and in China, which accounts for half of global metal consumption.

Growth in export volumes also slowed down due to Russia's shrinking export supplies of oil and oil products, which, according to the FCS, reduced by 2.3% and 6.5% respectively as the country fulfilled its obligations to reduce production under the agreements. Exports of these energy resources decreased due to lower supplies to the EU amid increasing competition from Libya and Nigeria. These countries, whose share in crude oil imports to the EU fell overall from 16% in 2012 to 8% in 2016, have recently started to ramp up production once again and are regaining their position in the European market. However, the situation with oil supplies from Russia to Belarus is improving. Although oil export quantities to Belarus were 17% lower in

2017 Q2 than in 2016 Q2, they increased by almost one quarter compared with the previous quarter due to the settlement of disputes in the oil and gas sector in April. Russian natural gas export quantities grew by 0.5%, but their annual growth slowed down compared with the previous quarter, largely on account of European countries.

Annual growth in the volume of goods imports increased from 26% in Q1 to more than 28% in Q2 amid the strengthening of the ruble and the noticeable acceleration in Russian economic growth. The expansion of Russian imports was more due to investment goods than consumer goods. According to estimates based on FCS data and Rosstat's product classification, the volume of imported investment goods increased by 34% as business activity intensified in Russian industry. The largest contribution to this growth came from goods such as air or gas condensation machinery, computers and computer components, tankers, tractors, bulldozers, and telephones for mobile or other wireless communications networks. Consumer goods imports were 17% up amid a revival in internal household demand prompted by the rise in real wages.

The intensification of consumer activity also contributed to an increase in imported services, most notably in the imports of tourism services, and thus contributed to growth in the balance of services deficit.

The investment income deficit increased most of all in the non-tradable current account components, primarily due to the increase in payments to non-residents. This trend has now been observed for the fourth consecutive quarter. In the previous three quarters, the largest contribution to growth in investment income due for payment came from re-invested earnings, which had increased as Russian companies attracted direct foreign investment.

The private sector's financial account deficit<sup>2</sup> gave way to a small net capital inflow into the pri-

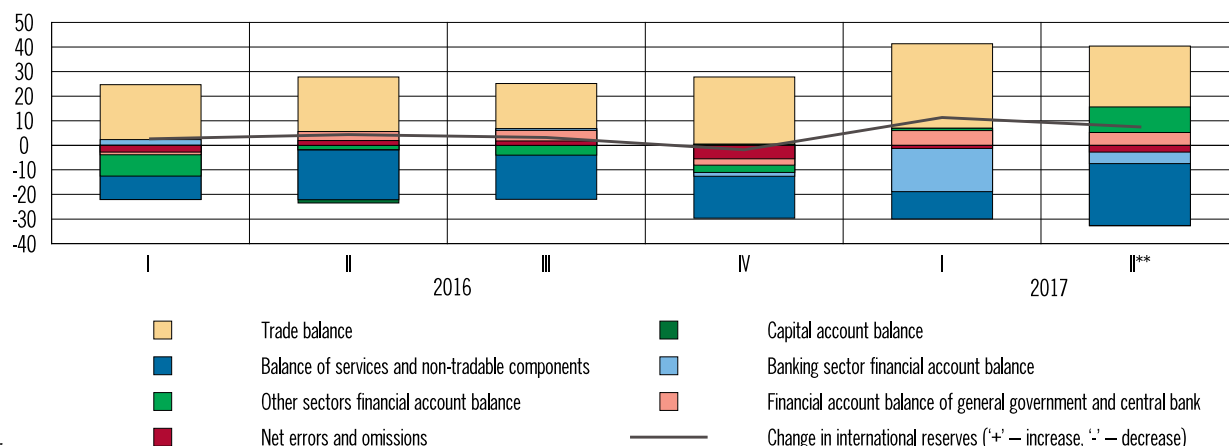
<sup>1</sup> Here and below, changes are relative to the corresponding period of the previous year, unless otherwise indicated.

<sup>2</sup> Signs according BPM5.

Chart 1

### Major balance of payments components\*

(billions of US dollars)



\* According to BPM5.

\*\* Estimate.

Source: Bank of Russia.

vate sector in 2017 Q2 (\$0.5 billion)<sup>3</sup>, according to preliminary estimates. This inflow was predominantly formed by the more than \$10 billion increase in other sectors' foreign liabilities, despite the limited access to Western capital markets as a result of the imposed sanctions. At the same time, the banking sector's financial account deficit in the form of a substantial reduction in foreign liabilities was only partially offset by the inflow of funds following the decline in their foreign assets. The repayment of foreign currency liquidity previously granted by the Bank of Russia made a perceptible contribution to reducing banks' foreign assets. Banks' repayment of their outstanding amounts to the Bank of Russia under FX repos and the acquisition of foreign currency for the Russian Ministry of Finance led to a marked increase in reserve assets.

## Balance of payments forecast for 2017-2020

The Bank of Russia's medium-term outlook on macro-economic development has not changed substantially. However, taking into account the better-than-expected assessment of Russian economic growth in 2017 Q2 by Rosstat, the forecast parameters of a number of macro-economic indica-

tors have been adjusted<sup>4</sup>. These changes and the release of balance of payments estimates for the summer months had an impact on the forecasts of a number of balance of payments items.

Compared with the previous Report, the current account surplus in the baseline scenario has been significantly reduced over the entire forecast period due to the upward revision of the volume of imports. In 2017, goods and services imports are forecast to grow by 17%, whereas in the June Report the forecast growth was 13%. A greater increase in imports is expected amid faster than previously expected economic growth in Russia, increased investment and signs of households transitioning to the consumption behaviour model (see box 'The savings and consumption household behaviour models'). However, this transition is smooth, and the steady growth in imports in the first half of 2017 in fact rather came from investment goods than consumer goods. In 2018, with the ruble set to depreciate as oil prices will fall, growth in imports will slow down. In 2019-2020, imports will accelerate following higher growth rates of Russian GDP.

The forecast of export volumes was also adjusted upwards amid improved estimates of growth in external demand linked to encouraging economic data for Russia's key trading partners, including China, Belarus and Turkey. However, compared with the June Report, the adjustment to the exports forecast was not as substantial as the adjustment to the imports forecast. The assumptions regarding oil

<sup>3</sup> Adjusted by the volume of foreign exchange liquidity provided by the Bank of Russia to credit institutions on a repayable basis, by the amount of operations in resident banks' correspondent accounts at the Bank of Russia, and also by the amount of funds in foreign currency received by the Bank of Russia under FX swaps.

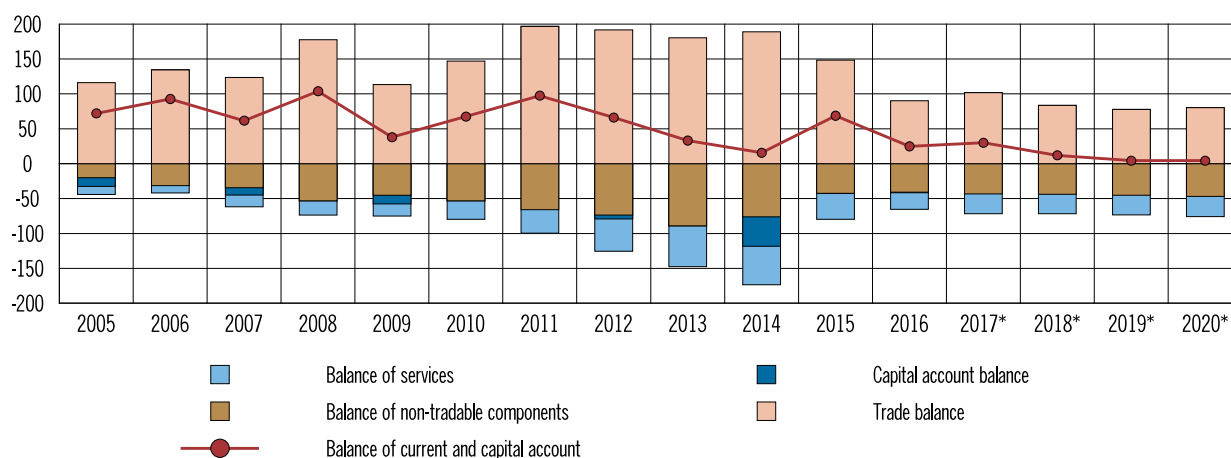
<sup>4</sup> See Section 2 'Economic outlook and key rate decision'.



Chart 2

### Major current account components\*

(billions of US dollars)



\* Baseline scenario forecast.  
Source: Bank of Russia.

prices have not changed significantly. Oil prices are still expected to remain around \$50 per barrel until the end of this year, falling to \$40 per barrel by the middle of next year and stabilising at this lower level in real terms in 2019-2020. In 2017-2019, year-on-year export volumes will follow oil prices. In 2017, compared with 2016, it will increase by 16% due to the increase in average oil prices over the year to \$50 per barrel, as a result of OPEC and non-OPEC nations' high level of compliance with the production restriction agreement. However, there is still high uncertainty with regard to whether this agreement will be extended beyond March next year. In the baseline scenario, which does not assume that the agreement will be extended, and with oil pro-

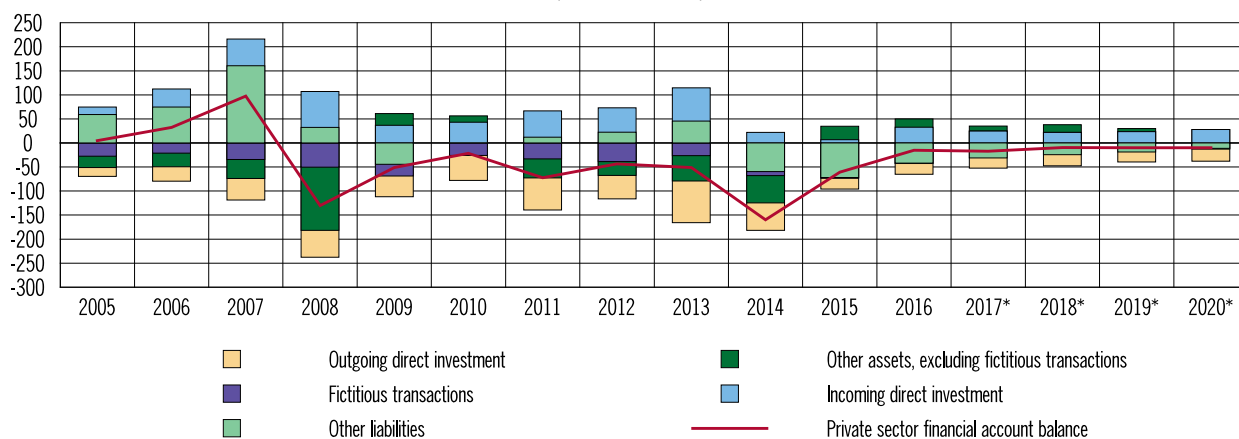
duction continuing to expand in countries not belonging to the agreement, average oil prices will fall in 2018-2019, and exports will shrink. In 2020, amid relatively stable oil prices, exports are expected to increase primarily due to growing external demand.

With growth in exports in 2017 exceeding growth in imports, the current account surplus will grow to \$30 billion. However, in 2018-2019, it will deteriorate considerably due to shrinking goods exports amid falling average annual energy prices and a marginal increase in imports. In 2020, with oil prices remaining at roughly \$40 per barrel in real terms, the current account surplus will stabilise at the previous year's levels of \$4 billion (Chart 2).

Chart 3

### Major private sector financial account components\*

(billions of US dollars)



\* Baseline scenario forecast.  
Note: according to BPM5.  
Source: Bank of Russia.

In parallel with the shrinking current account surplus, the net private capital outflow will also fall from \$17 billion in 2017 to \$10 billion in 2018-2020.

Growth in the private sector's financial account deficit is expected to slow down, primarily due to the less intensive reduction of foreign liabilities in 2017-2018 compared with previous years. First, according to the external debt repayment schedule, external debt repayments will decrease. Second, companies will find sources of external funding not affected by the sanctions. In addition, amid the growth in the Russian economy, Russia's investment appeal will improve. From 2019 onwards, the private sector is expected to see a net inflow of foreign liabilities (Chart 3).

Starting from 2017, the main component of the private sector's financial account deficit will once again be the build-up of foreign assets. In 2018, it will slow, amid the fall in oil prices and receipts from foreign economic activity. In 2019-2020, given low oil prices, demand for foreign assets will remain low, but will intensify due to increases in economic agents' incomes as Russia's economy grows.

Compared with the previous Report, the forecast for the financial account deficit in the private sector has been adjusted downwards over the entire forecast period. Amid lower forecast current account receipts, the Russian private sector will have fewer funds to purchase foreign assets.

However, the forecast capital inflow into the public sector in 2017-2018 was adjusted upwards as a result of foreign investors' higher-than-expected interest in Russian government securities.

In 2017, reserve assets will grow significantly due to banks' full repayment to the Bank of Russia of their outstanding amounts under FX repos and the acquisition of foreign currency for the Russian Ministry of Finance. In 2018, reserves are forecast to grow solely due to operations for the Russian Ministry of Finance. In 2019-2020, no significant change in reserve assets is expected.

According to the scenario that assumes a gradual increase in average annual oil prices to roughly \$60 per barrel in 2020 and higher global economic growth, in 2018-2020, Russian export volumes will be at significantly higher levels compared with the baseline scenario. At the same time, import volumes will also increase considerably amid the accelerated recovery of the Russian economy and the

higher ruble exchange rate. With that, the growth in exports will outstrip the recovery in imports, causing the trade surplus to grow over the entire forecast period. The current account surplus will also grow in 2017-2018, and in 2019-2020, after decreasing slightly due to growth in the deficit in the balance of non-tradable components amid increased external debt repayments, it will stabilise at higher levels compared with the baseline scenario.

The increased economic growth in Russia combined with growing commodity prices will improve the appeal of Russian assets to foreign investors, which will contribute to expanded external borrowing by Russian companies and the public sector. At the same time, alongside growth in incomes, the amount of investment in foreign assets is expected to pick up in the Russian private sector. In this scenario, the private sector's financial account deficit will gradually decline in 2018-2020 and will continue to be lower overall than in the baseline scenario. The acquisition of foreign currency by the Russian Ministry of Finance (in larger amounts than in the baseline scenario) will be reflected in significantly higher growth in international reserves in 2018-2020.

The risk scenario assumes that oil prices will fall to \$25 per barrel by mid-2018, and will remain close to this level until the end of the forecast period. The slack in the global economy and the associated slump in commodity prices will lead to a considerable reduction in export volumes from Russia compared with the baseline scenario. At the same time, the volume of imported goods and services will also remain at lower levels on the back of the lower ruble exchange rate and weak growth in the Russian economy. The fall in exports is expected to outstrip the squeeze in imports. As a result, the trade surplus will decrease and the current account surplus will fall over the forecast period.

The tightening of external borrowing conditions amid the slump in oil prices, increase in risk premiums and associated depreciation of the ruble will feed through to the greater reduction in liabilities compared with the baseline scenario over the entire forecast period. At the same time, foreign asset volumes acquired by residents in 2018-2020 will remain close to levels in the baseline scenario. As a result, financial account deficit in the private sector will accelerate over the forecast period in the risk

scenario, compared with the baseline scenario, and reserve assets will reduce following the Russian Ministry of Finance's reverse operations.

## The economic situation in Russian regions

### Regional analysis of trends in inflation components

In May-July 2017, inflation for Russia as a whole was approximately 4%. At the start of the period under consideration (May-June), inflation demonstrated a short-term spike due to the increase in vegetable and fruit prices, but price growth once again fell with the arrival of the new harvest.

- The uniformity of inflation processes across the regions continued to increase in 2017 Q2: the number of regions where inflation was below 4% grew from 44 in April to 59 in July. The median of inflation growth distribution shifted to the left in July 2017, compared with the previous quarter (Chart 1).

Broken down by component, inflation dynamics were similar to national dynamics in most federal regions:

- for food products, price growth accelerated in May-June and slowed again in July;
- for non-food goods, price growth continued to slow down consistently;
- annual price growth for services remained the same at the end of the period under consideration.

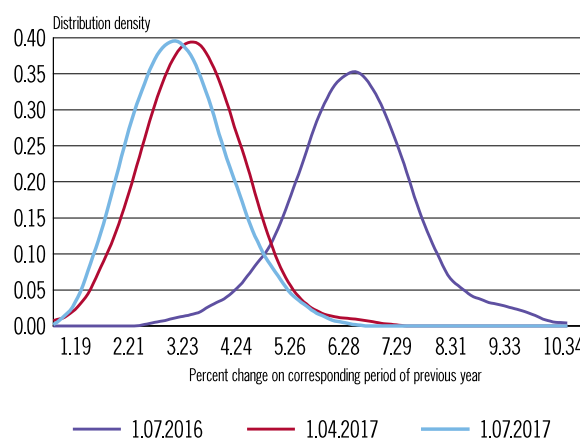
The greatest uniformity across regions was observed in the non-food goods component. The deviation of regional inflation dynamics from nation-wide trends observed in some regions was linked to accelerated price growth for vegetables and fruit, land-based passenger transport tariffs and tariffs for communications services.

### Food products

In May-June, one third of Russian regions faced accelerated growth in vegetable and fruit prices, in particular for vegetables in the 'borsch basket', before they slowed down again in July. The strongest growth in prices was recorded in the central and southern parts of Russia.

Chart 1

Distribution of Russian regions by annual inflation



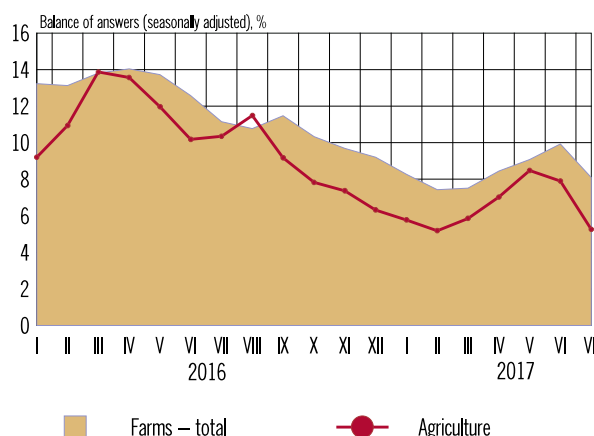
Sources: Rosstat, Bank of Russia calculations.

Since the start of 2017, the 'borsch basket' has increased in price by 49% on average across Russia, largely due to the growth of potato price. The main reasons for this are the earlier than usual depletion of potato stocks from the previous year's harvest and the delivery of a new batch of potato imports to most regions at higher prices compared with the price of Russian potato stocks.

Against the backdrop of the temporary surge in vegetable and fruit prices, a slight increase was seen in inflation expectations among agricultural producers, which was bolstered by unfavourable weather forecasts and a possible reduction in the harvest.

Chart 2

Producers' answers to the question: 'How will prices for finished products change (go up/down) over next 3 months?'



Source: Bank of Russia monitoring data.

Overall, lower – than the Russian average – vegetable price growth was observed in several regions in the Far Eastern federal district (deflation was recorded for some goods). This was due to the successful implementation of a regional programme to keep food product prices in check. In addition, most vegetable and fruit imports to the Far Eastern federal district are from China, and not from the southern regions of Russia where the largest surge in food inflation was recorded.

With the arrival of the new harvest to the market in July, the acceleration in vegetable and fruit price growth came to an end, and inflation expectations among agricultural producers subsided (Chart 2).

## Services

In July 2017, prices for services decreased slightly compared with the end of Q1. In certain regions, the acceleration in the service inflation compared with the Russian average was related to passenger transport services and communications services.

The growth in tariffs for passenger transport services was linked to the additional indexation of tariffs meant to reduce the unprofitability of local companies in certain regions. Besides, an important factor behind the inflation in the regions in the Far Eastern federal district was the growing prices of air travel: the cheapest tickets (those subsidised under the presidential programme launched at the end of March, and economy class tickets) were sold out by mid-April; persistently high demand in the summer months combined with inadequate competition led to prices accelerating for the remaining tickets. The rise in tariffs for long-distance passenger rail transport in sleeper and third-class sleeper carriages and also for passenger vehicle transport also had a negative impact on the situation in May 2017.

Mobile phone operator services became drivers of price growth in communications services. For the Russian Federation as a whole, an increase in annual price growth for communications services was recorded for four consecutive months (from 3% in March to 5.2% in August 2017).

The growth in mobile phone operator tariffs may have occurred due to concerns about the elimination of roaming within Russia at the request of the Federal Anti-monopoly Service and mobile communications operators' possible development of equip-

ment to implement laws obligating them to store far more information in future than at the present time.

## Non-food goods

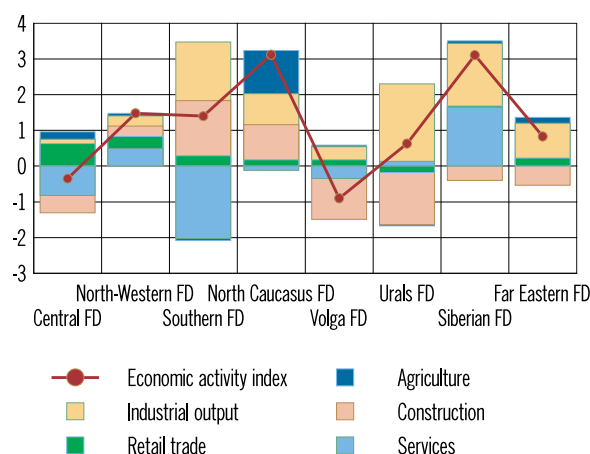
Annual growth in the prices of non-food goods gradually fell in most regions; this trend was characterised by the highest levels of uniformity when broken down by region. May's risk of inflation accelerating for durable goods (in particular, vehicles) did not materialise. The annual growth in vehicle prices fell (from 4% in April to 2.7% in August for Russia as a whole), with sales volumes demonstrating stable growth. Dealers note that it is not only the more well-off households that show demand for vehicles, but also the 'middle class', whose demand is buoyed, among other things, by the government's 'First Vehicle' and 'Family Vehicle' programmes.

## Uniformity of economic activity recovery in the regions

For Russia as a whole, GDP growth was 2.5% in Q2. Broken down by region, the recovery processes in the economy were seen to become more uniform: in July 2017, 59 constituent entities reported growth in gross regional product (GRP) (in April, 51 constituent entities). The main contribution to the recovery in economic activity still came from industrial production and agriculture, as previously. Retail trade showed weak positive dynamics, while most federal districts registered a decline in the volume of consumer services (Chart 3).

Chart 3

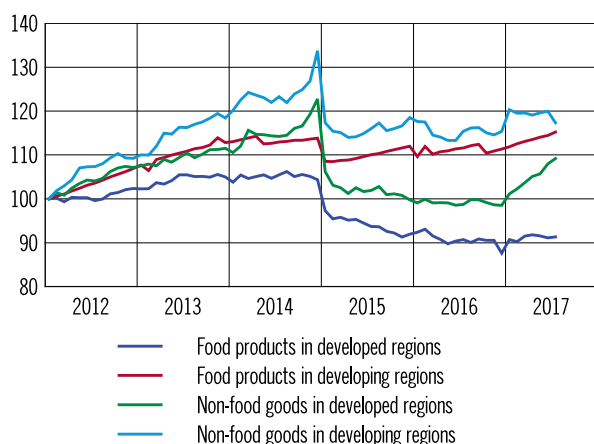
### Contribution to economic activity by activity type (percent change on corresponding period of previous year)



Sources: Rosstat, Bank of Russia calculations.

**Retail trade turnover (seasonally adjusted)**  
(January 2012 = 100%)

Chart 4



Sources: Rosstat, Bank of Russia calculations.

Some of the largest industrial centres with a diversified economic structure – the Krasnoyarsk Territory, Moscow Region and the largest mining region, Tyumen Region – made a key contribution to the growth in industrial production (in July, the industrial production index was 1.0% at the federal level).

The continuation of recovery processes in the economy was also supported by an uptick in leasing. According to Bank of Russia survey data, out of 3,477 businesses, 30% made use of leasing services (with more than half of them categorised as small and medium-sized enterprises). Passenger and freight motor vehicles (53%), machinery and equipment (27%) and agricultural machinery (12%) were among the objects of leasing. Nonetheless, businesses are giving cautious assessments of the future growth outlook: only 10.8% of the total number of respondents reported plans to sign new lease agreements.

Over the period under consideration, import substitution processes developed actively in the agricultural industry. At present, more than 520 investment projects are being carried out, most of which are in the Central (23.5%) and Volga (22.3%) federal districts. Most investment projects pertain to meat, milk and dairy production and greenhouse construction.

At the federal level, Q2 saw a significant increase in the volume of construction work. However, broken down by region, dynamics continued to be quite uneven – the standard deviation of the dis-

tribution of this figure continued to grow. In most constituent entities, the construction industry continued to be depressed, with the largest slump witnessed in residential construction. High growth was observed in regions where major government-backed projects were implemented (in particular, in the North Caucasus, Southern and Far Eastern federal districts). In the North Caucasus federal district, 30 large-scale investment projects exceeded ₹700 billion (which is a substantial sum given the size of the district's economy). Substantial growth in construction was also observed in the Republic of Crimea and Sevastopol. This was due to increased construction works on the Kerch Strait Bridge, the Tavrida federal highway, and the new international airport in Simferopol.

A gradual revival was seen in consumer activity dynamics in Russia, while at the regional level it continued to be mixed. In highly developed regions, wholesale and retail trade of non-food goods saw significant growth; in regions with medium-to-low levels of development, demand was below pre-crisis rates (Chart 4). Thus, in regions where household purchasing power is higher (high household income and savings), households implemented their pent-up demand for durable goods. In view of its gradual and recovering nature, the nascent increase in consumer activity is not inflationary in nature.

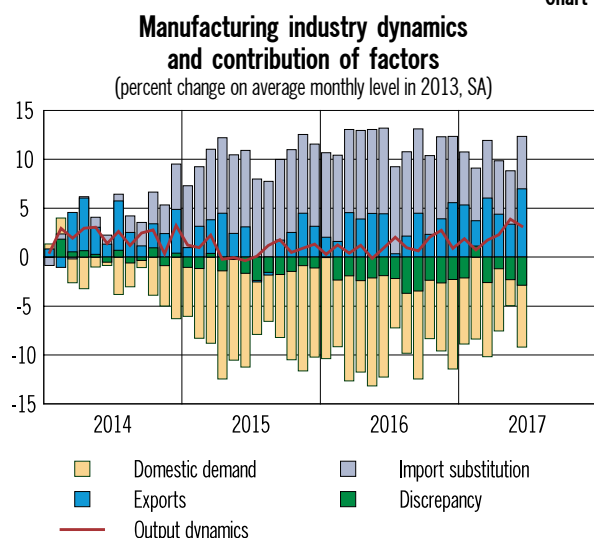
## Growth of import substitution processes and increased exports in 2014–2017

Starting from mid-2014, following the introduction of food countersanctions and the depreciation of the ruble, domestic production has gained a competitive advantage. Since early 2015, import substitution and growing exports have made a significant contribution to supporting domestic production (Chart 1). As a result, the scale of the reduction in Russian industrial output during the crisis period was significantly less than the fall in internal demand.

Two periods can be identified in the growth of import substitution in recent years: active growth from 2014 to mid-2016, and deceleration beginning in the second half of 2016.



Chart 1



Sources: Rosstat, FCS, Bank of Russia calculations.

The active substitution of food imports began in August 2014 following the introduction of the food embargo, and by the end of 2014, after a significant drop in the ruble's exchange rate, the import substitution processes had penetrated most sectors of Russian industry.

Import substitution's largest contribution to output dynamics was seen in food production (where imports accounted for a relatively high percentage of commodity resources, i.e. roughly 25% in 2012–2013), while the smallest contribution was in raw materials processing (in view of the initially low proportion of imports).

Starting from mid-2016, the potential of import substitution began to wane. In some industries, this was due to imports being almost entirely dis-

placed. In others, it was down to the gradual exhaustion of the price-based competitive advantages obtained as a result of the ruble depreciation. Import substitution processes slowed the most in the production of non-food consumer goods and investment goods, which may be due to domestic production not being sufficiently competitive in this segment of the market. Nonetheless, some industries continued to increase their output as a result of import substitution, which suggests that producers may be able to compete with equivalent imported goods (agricultural machinery, metal-cutting tools, cargo vehicles and buses). In industries producing food products and intermediate goods, import substitution is still encouraging growth in output, but its potential is waning.

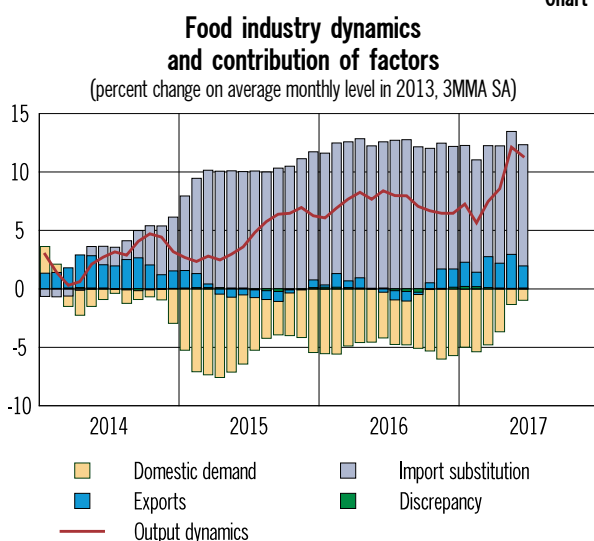
## Consumer goods

The growth of import substitution has made a large contribution to supporting output in agriculture and food industry. Stable growth in domestic production has been observed in the meat market where producers are now realising their potential following the interruption of imports from countries affected by the embargo. In 2017 Q1, the proportion of domestically-produced beef rose to 59% compared with 48% in early 2014. In pork production, domestic meat supplies met nearly 92% of demand in 2017 Q1 (in early 2014, 82%). Poultry demand was met almost entirely by domestic production (the potential of import substitution has been exhausted).

Active import substitution is underway in the dairy industry, although the main increase in production occurred in the first half of 2015. A striking example is the cheese market, where the proportion of domestically-produced items has risen from 52% (according to data for 2014 Q1) to 72% in 2017 Q1. However, the potential of import substitution in the dairy industry is limited by a shortage in domestic raw milk. Increased milk production requires growth in dairy cattle numbers, which is a long process.

In addition to import substitution, another important factor behind the growth in output in certain food industries is exports. Increased exports have supported the food industry. Processing the good harvest of 2016 made it possible to maintain for a long period of time high growth rates for the exports

Chart 2



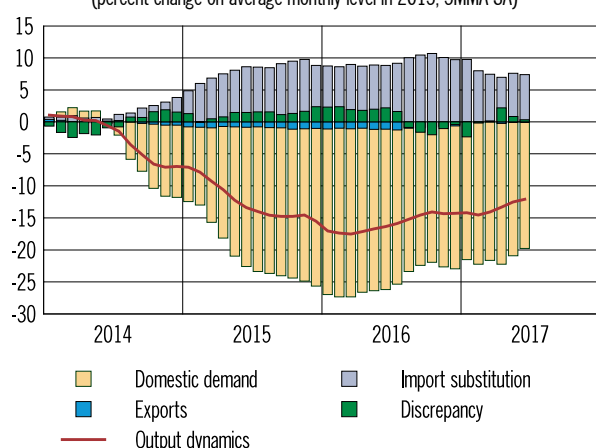
Sources: Rosstat, FCS, Bank of Russia calculations.



Chart 3

### Dynamics of non-food consumer goods production and contribution of factors

(percent change on average monthly level in 2013, 3MMA SA)



Sources: Rosstat, FCS, Bank of Russia calculations.

of finished goods, such as sunflower oil and flour. Pig and poultry farming exports are rapidly increasing, but their contribution to production growth in the meat industry is still negligible.

The contribution of import substitution to the production of non-food consumer goods was less significant than its contribution to the food production (Chart 3). The displacement of imports buoyed output of pharmaceuticals, detergents, household appliances (fridges, washing machines) and some light-industry consumer goods (shoes, bags).

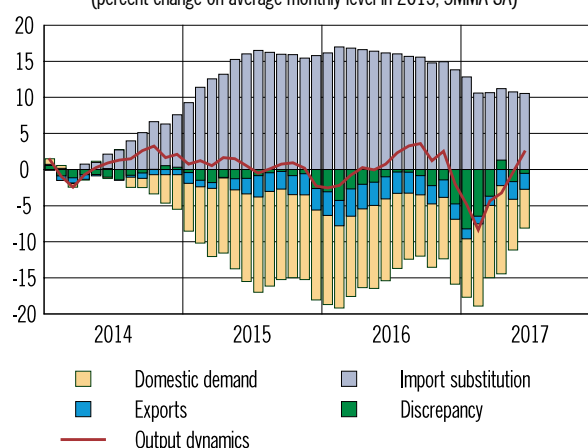
## Investment goods

The process of displacing imports in the production of investment goods is characterised by growth points; there are few sectors exhibiting stable import substitution. These sectors include those producing agricultural machinery and equipment, combines, tractors, and milking machines (in turn, demand for these products is linked to import substitution in agriculture, and the expansion of subsidy programmes meant for the producers of agricultural machinery). Imports are also being actively displaced in vehicle production (trucks, buses – in part due to increased government procurement). Intensive growth linked to demand's switch to domestically-produced goods has been observed in industries producing vehicle engines and gas turbines, lifts and elevators, and metal-cutting tools. Conversely, import substitution is underdeveloped in most subsectors of the electrical equipment in-

Chart 4

### Investment goods production dynamics and contribution of factors

(percent change on average monthly level in 2013, 3MMA SA)



Sources: Rosstat, FCS, Bank of Russia calculations.

dustry – its contribution to production growth does not offset the fall in domestic demand.

Since mid-2016, the impact of import substitution on investment goods output has started to wane, due to the weakening of price-based competitive advantages amid the generally low competitiveness of domestic products (Chart 4).

Some support for several industries has come from transitory growth in the exports of certain investment goods (combines, cultivators, freight carriages and radar equipment).

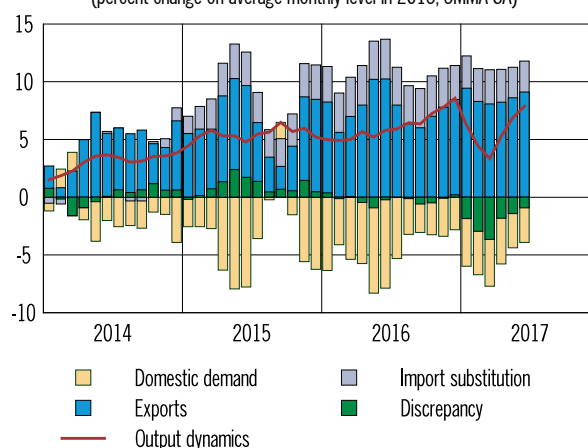
## Intermediate goods

Import substitution in the intermediate goods industry has been less pronounced compared with

Chart 5

### Intermediate goods production dynamics and contribution of factors

(percent change on average monthly level in 2013, 3MMA SA)



Sources: Rosstat, FCS, Bank of Russia calculations.

other product groups (Chart 5). In oil, timber, and pulp industries, the proportion of domestic produce in the internal market is close to 100%, so the contribution of import substitution to growth in output is limited. Exports provide stable support for output in these types of activities.

Imports have only been displaced in those industries where the imports initially represented a relatively high percentage of total goods. These include the chemical, rubber and plastic industries.

## 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

|  |   |
|--|---|
| The Bank of Russia has held its first auction to place its coupon bonds  | On 15 August 2017, the Bank of Russia held its first auction to place its own coupon bonds. The Bank of Russia offered credit institutions ₱150 billion in OBRs (Bank of Russia Bonds) with the maturity on 15 November 2017. The coupon income will be calculated on the basis of the Bank of Russia key rate as of each day of the coupon period. This issue is primarily technical in nature, intended to provide credit institutions with an opportunity to assess their readiness to deal with the said securities and, if the need arises, adjust their internal procedures accordingly. Further on, the Bank of Russia will issue OBRs to absorb the stable component of emerging liquidity surplus.   |
| The Bank of Russia changed the approaches used to compile the Lombard List (general requirements for the inclusion of securities)            | From 14 July 2017, bonds of the Russian issuers to be included in the Bank of Russia Lombard List must have credit rating no less than ruBBB assigned by the credit rating agency Expert RA JSC (of corporate bonds issued by resident legal entities, only for credit institutions' bonds) or BBB(RU) assigned by the credit rating agency ACRA JSC. In addition, the Bank of Russia now takes into account the results of its assessment of the credit quality of securities, terms of their placement and circulation, and other material characteristics. Also, from 14 July 2017, the minimum acceptable credit rating of foreign issuers' bonds included in the Lombard List is set at BB-/Ba3 according to the classification of credit rating agencies S&P Global Ratings, Fitch Ratings / Moody's Investors Service. |
| The Bank of Russia changed the approaches used to compile the Lombard List (requirements for certain types of issuers)                       | From 1 October 2017, the Bank of Russia suspends including in its Lombard List the following new securities issues: bonds of credit institutions and insurance companies; bonds of Vnesheconombank; bonds of international financial organisations; debt securities issued by non-resident legal entities outside the Russian Federation whose beneficiaries or final borrowers are Russian credit institutions and insurance companies and Vnesheconombank. From 1 October 2017, securities of the aforementioned financial organisations included in the Lombard List will see gradual increase in their discounts/decrease in their adjustment ratios. From 1 July 2018, repos and lending operations with the said securities will be suspended.  |
| The Bank of Russia has expanded the Lombard List   | According to the Bank of Russia Board of Directors' decisions of 16 June, 29 June and 1 September 2017, 38 new issues of securities were additionally included in the Bank of Russia Lombard List.  |
| The Bank of Russia has increased the aggregate limit on its loans secured by guarantees of JSC Russian Small and Medium Business Corporation | According to the Bank of Russia Board of Directors' decision of 7 July 2017, the aggregate limit on the loans secured by guarantees of JSC Russian Small and Medium Business Corporation was raised to ₱175 billion.  |
| The Bank of Russia has introduced the emergency liquidity assistance mechanism (ELA)   | On 1 September 2017, the Bank of Russia implemented the emergency liquidity assistance mechanism (ELA). From now on, banks that experience temporary liquidity difficulties will be able to borrow funds from the Bank of Russia for the term of up to 90 days at the fixed rate equal to the Bank of Russia key rate plus 1.75%.   |
| The Bank of Russia has discontinued FX repo auctions   | From 11 September 2017, the Bank of Russia has discontinued regular FX repo auctions. However, it will hold a one-off 28-day FX repo auction on 2 October 2017.   |

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<br>1.01.17    | From<br>27.03.17   | From<br>2.05.17    | From<br>19.06.17   | From<br>18.09.17   |
|----------------------|---|---|--------------------|---------------------------|---------------------|--------------------|--------------------|--------------------|--------------------|
| Liquidity provision  | Standing facilities                             | Overnight loans; lombard loans; loans secured by non-marketable assets; FX swaps (ruble leg) <sup>1</sup> ; repos | 1 day              | daily                     | 11.00               | 10.75              | 10.25              | 10.00              | 9.50               |
|                      |   | Loans secured by non-marketable assets <sup>2</sup>   | from 2 to 549 days |                           | 11.75               | 11.50              | 11.00              | 10.75              | 10.25              |
|                      | Open market operations (minimum interest rates) | Auctions to provide loans secured by non-marketable assets <sup>2</sup>   | 3 months           | monthly <sup>3</sup>      | 10.25               | 10.00              | 9.50               | 9.25               | 8.75               |
|                      |   | Repo auctions   | 1 week             | weekly <sup>4</sup>       |                     |                    |                    |                    |                    |
|                      |   | FX swap auctions (ruble leg) <sup>1</sup>   | from 1 to 6 days   | occasionally <sup>5</sup> |                     |                    |                    |                    |                    |
| Liquidity absorption | Open market operations (maximum interest rates) | Deposit auctions  | from 1 to 2 days   | occasionally <sup>5</sup> | 10.00<br>(key rate) | 9.75<br>(key rate) | 9.25<br>(key rate) | 9.00<br>(key rate) | 8.50<br>(key rate) |
|                      |   | OBR auctions <sup>2</sup>   | from 1 to 6 days   |                           |                     |                    |                    |                    |                    |
|                      |   | Deposit operations  | 1 week             | weekly <sup>4</sup>       |                     |                    |                    |                    |                    |
|                      | Standing facilities                             | Deposit operations  | 3 months           |                           |                     |                    |                    |                    |                    |
|                      |   | Deposit operations  | 1 day, call        | occasionally              | -                   | -                  | -                  | 9.00               | 8.50               |
|                      |   | Deposit operations  | 1 day, call        | daily                     | 9.00                | 8.75               | 8.25               | 8.00               | 7.50               |

<sup>1</sup> From 23 December 2016, interest rates on foreign currency leg equal LIBOR for 1-day USD/EUR loans (depending on the currency of the operation).<sup>2</sup> Operations conducted at a floating interest rate linked to the Bank of Russia key rate.<sup>3</sup> Operations have been discontinued since April 2016.<sup>4</sup> Either a repo or a deposit auction is held depending on the situation with liquidity. See press-release [http://www.cbr.ru/press/PR.aspx?file=19012015\\_154523/2015-01-19T15\\_41\\_11.htm](http://www.cbr.ru/press/PR.aspx?file=19012015_154523/2015-01-19T15_41_11.htm).<sup>5</sup> Fine-tuning operations.

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

Source: Bank of Russia.

## Statistical tables

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 |               |               |               |
|----------------------|------------------------|--|--------------------|---------------------------|--|---------------|---------------|---------------|
|                      |                        |  |                    |                           | As of 1.07.16  | As of 1.07.17 | As of 1.08.17 | As of 1.09.17 |
| Liquidity provision  | Standing facilities    | Overnight loans  | 1 day              | daily                     | 1.5  | 4.2           | 0.0           | 0.0           |
|                      |                        | Lombard loans  |                    |                           | 1.2  | 0.0           | 0.0           | 0.0           |
|                      |                        | FX swaps   |                    |                           | 0.0  | 0.0           | 0.0           | 0.0           |
|                      |                        | Repos  |                    |                           | 273.7  | 103.2         | 396.1         | 767.5         |
|                      |                        | Loans secured by non-marketable assets                     | from 1 to 549 days |                           | 242.1  | 8.8           | 14.3          | 54.5          |
|                      | Open market operations | Auctions to provide loans secured by non-marketable assets | 3 months           | monthly <sup>1</sup>      | 219.6  | 0.0           | 0.0           | 0.0           |
|                      |                        |  | 18 months          | occasionally <sup>2</sup> |  |               |               |               |
|                      |                        | Repo auctions  | 1 week             | weekly <sup>3</sup>       | 370.7  | 0.0           | 0.0           | 0.0           |
|                      |                        |  | from 1 to 6 days   | occasionally <sup>4</sup> |  |               |               |               |
|                      |                        | FX swap auctions   | from 1 to 2 days   |                           | 0.0  | 0.0           | 0.0           | 0.0           |
| Liquidity absorption | Open market operations | Deposit auctions   | from 1 to 6 days   | weekly <sup>3</sup>       | 0.0  | 470.0         | 519.6         | 1003.7        |
|                      |                        |  | 1 week             |                           |  |               |               |               |
|                      |                        | OBR auctions   | 3 months           | occasionally              | -  | -             | -             | 150.2         |
|                      | Standing facilities    | Deposit operations   | 1 day, call        | daily                     | 436.8  | 188.4         | 182.1         | 185.7         |

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

Source: Bank of Russia.

Table 2

## Required reserve ratios

(%)

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

Source: Bank of Russia.

Table 3

## Required reserve averaging ratio

| Types of credit institutions | From<br>1.01.16 |
|------------------------------|-----------------|
| Banks                        | 0.8             |
| Non-bank credit institutions | 1.0             |

Source: Bank of Russia.

Table 4

## Bank of Russia operations to provide foreign currency

| Instrument                | Term      | Frequency <sup>1</sup> | Minimum auction rate and interest rate for dollar leg of FX swaps <sup>2</sup> (as apread to LIBOR <sup>3</sup> , pp) | Bank of Russia claims, millions of US dollars <sup>4</sup> |               |               |               |
|---------------------------|-----------|------------------------|---|--|---------------|---------------|---------------|
|                           |           |                        |   | From 23.12.16  | As of 1.07.16 | As of 1.07.17 | As of 1.08.17 |
| Repo auctions             | 1 week    | weekly                 | 2.00  | 0.0  | 0.0           | 100.1         | 100.1         |
|                           | 28 days   |                        |   | 12 955.2   | 2 305.5       | 1 365.1       | 1 197.2       |
|                           | 12 months |                        |   | 168.5  | 0.0           | 0.0           | 0.0           |
| Loan auctions             | 28 days   | monthly                | 2.25  | 0.0  | 0.0           | 0.0           | 0.0           |
|                           | 365 days  |                        | 3.25  | 0.0  | 0.0           | 0.0           | 0.0           |
| USD/RUB sell/buy FX swaps | 1 day     | daily                  | 1.50  | 420.5  | 0.0           | 0.0           | 0.0           |

<sup>1</sup> In 2016 and in January-August 2017, no loan auctions were held; 12-month repo auctions have been suspended since 1 April 2016; regular one-week and 28-day repo auctions have been discontinued since 11 September 2017.

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

<sup>3</sup> In respective currencies and for respective terms.

<sup>4</sup> Claims on credit institutions under the second leg of repos.

Source: Bank of Russia.



Table 5

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

| Purpose of indirect bank lending             | Maturity      | Collateral   | Interest rate, % p.a. <sup>2</sup> |               |              |               |               |               | Bank of Russia claims on credit institutions, billions of rubles |               |               |        |  |  | Limit as of 1.09.17, billions of rubles |
|--|---------------|--|------------------------------------|---------------|--------------|---------------|---------------|---------------|--|---------------|---------------|--------|--|--|---|
|  |               |  | As of 1.01.17                      | From 27.03.17 | From 2.05.17 | From 19.06.17 | From 18.09.17 | As of 1.07.16 | As of 1.07.17  | As of 1.08.17 | As of 1.09.17 |        |  |  |   |
| Non-commodity exports                        | Up to 3 years | Claims under loan agreements secured by contracts of insurance of JSC EXIAR  | 9.00                               | 8.75          | 6.50         | 6.50          | 6.50          | 50.98         | 33.47  | 33.66         | 45.08         | 75.00  |  |  |   |
| Large-scale investment projects <sup>3</sup> | Up to 3 years | Claims under bank loans for investment projects secured by the government guarantees of the Russian Federation   | 9.00                               | 8.75          | 8.25         | 8.00          | 7.50          | 91.02         | 102.43   | 107.16        | 104.23        | 150.00 |  |  |   |
|  |               | Bonds placed to fund investment projects and included in the Bank of Russia Lombard List   | 9.00                               | 8.75          | 8.25         | 8.00          | 7.50          | 0.86          | 0.00   | 0.00          | 0.00          |        |  |  |   |
| Small and medium-sized enterprises           | Up to 3 years | Claims under loan agreements of JSC SME Bank <sup>4</sup>  |                                    |               |              |               |               | 43.20         | 31.83  | 30.47         | 27.04         | 175.00 |  |  |   |
|  | Up to 3 years | Guarantees of JSC Russian Small and Medium Business Corporation issued under the Programme for Encouraging Lending to Small and Medium-sized Enterprises | 6.50                               | 6.50          | 6.50         | 6.50          | 6.50          | 8.50          | 73.60  | 77.86         | 77.16         |        |  |  |   |
| Leasing                                      | Up to 3 years | Claims on loans to leasing companies   | 9.00                               | 8.75          | 8.25         | 8.00          | 7.50          | 0.00          | 0.20   | 0.20          | 0.20          | 10.00  |  |  |   |
| Military mortgage                            | Up to 3 years | Mortgages issued under the Military Mortgage programme   | 10.00                              | 9.75          | 9.25         | 9.00          | 8.50          | 29.31         | 29.31  | 29.31         | 29.31         | 30.00  |  |  |   |

<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 prevent 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 website.

<sup>3</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 Principles for the Provision of the Russian Federation State Guarantees on Loans or Bonded Loans Attracted to Carry out Investment Projects' or Regulation of the Government of the Russian Federation No. 1044, dated 11 October 2014, 'On Approving the Programme to Support Investment Projects Implemented in the Russian Federation Based on Project Financing'.

<sup>4</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.

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>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) | 12.9      | 13.7           | 14.0 | 13.6              | 17.4                 | 13.7           | 14.5   | 10.2     |
| <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      |
| March                                     | 0.5       | 0.6            | 0.4  | 0.6               | -1.3                 | 0.8            | 0.8  | 0.1      |
| April                                     | 0.4       | 0.5            | 0.4  | 0.5               | -0.1                 | 0.6            | 0.6  | 0.3      |
| May                                       | 0.4       | 0.5            | 0.4  | 0.3               | 0.6                  | 0.4            | 0.4  | 0.5      |
| June                                      | 0.4       | 0.4            | 0.1  | 0.3               | -1.1                 | 0.5            | 0.4  | 0.6      |
| July                                      | 0.5       | 0.3            | 0.0  | 0.5               | -4.2                 | 0.4            | 0.3  | 1.7      |
| August                                    | 0.0       | 0.4            | -0.6 | 0.4               | -8.9                 | 0.4            | 0.4  | 0.3      |
| September                                 | 0.2       | 0.5            | -0.1 | 0.4               | -5.4                 | 0.6            | 0.6  | 0.1      |
| October                                   | 0.4       | 0.4            | 0.8  | 0.6               | 2.5                  | 0.5            | 0.6  | -0.3     |
| November                                  | 0.4       | 0.4            | 0.7  | 0.5               | 2.5                  | 0.4            | 0.5  | 0.0      |
| December                                  | 0.4       | 0.3            | 0.6  | 0.6               | 0.9                  | 0.3            | 0.3  | 0.3      |
| Total for the year (December on December) | 5.4       | 6.0            | 4.6  | 6.0               | -6.8                 | 6.5            | 6.8  | 4.9      |
| <b>2017</b>                               |           |                |      |                   |                      |                |  |          |
| January                                   | 0.6       | 0.4            | 0.9  | 0.3               | 5.3                  | 0.5            | 0.4  | 0.5      |
| February                                  | 0.2       | 0.2            | 0.2  | 0.1               | 0.6                  | 0.2            | 0.2  | 0.3      |
| March                                     | 0.1       | 0.2            | 0.1  | 0.1               | 0.3                  | 0.2            | 0.2  | 0.0      |
| April                                     | 0.3       | 0.2            | 0.6  | 0.1               | 4.7                  | 0.2            | 0.1  | 0.2      |
| May                                       | 0.4       | 0.1            | 0.6  | -0.1              | 5.8                  | 0.2            | 0.1  | 0.4      |
| June                                      | 0.6       | 0.1            | 1.0  | 0.1               | 8.3                  | 0.1            | 0.0  | 0.7      |
| July                                      | 0.1       | 0.1            | -1.0 | 0.1               | -8.3                 | 0.1            | 0.1  | 1.6      |
| August                                    | -0.5      | 0.1            | -1.8 | 0.0               | -15.5                | 0.1            | 0.1  | 0.4      |

<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 excluding petrol <sup>2</sup> | Services |
|-------------|-----------|----------------|------|-------------------|----------------------|----------------|--|----------|
| <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      |
| March       | 7.3       | 8.0            | 5.2  | 6.7               | -5.1                 | 8.8            | 9.1  | 8.2      |
| April       | 7.3       | 7.6            | 5.3  | 6.3               | -1.6                 | 8.5            | 8.7  | 8.4      |
| May         | 7.3       | 7.5            | 5.6  | 6.4               | 0.0                  | 8.4            | 8.5  | 8.4      |
| June        | 7.5       | 7.5            | 6.2  | 6.5               | 4.1                  | 8.5            | 8.7  | 7.9      |
| July        | 7.2       | 7.4            | 6.5  | 6.7               | 4.2                  | 8.4            | 8.7  | 6.5      |
| August      | 6.9       | 7.0            | 6.5  | 6.7               | 5.3                  | 8.1            | 8.4  | 5.5      |
| September   | 6.4       | 6.7            | 5.9  | 6.4               | 1.9                  | 7.5            | 7.9  | 5.6      |
| October     | 6.1       | 6.4            | 5.7  | 6.1               | 1.5                  | 7.0            | 7.4  | 5.4      |
| November    | 5.8       | 6.2            | 5.2  | 6.0               | -1.5                 | 6.7            | 7.0  | 5.3      |
| December    | 5.4       | 6.0            | 4.6  | 6.0               | -6.8                 | 6.5            | 6.8  | 4.9      |
| <b>2017</b> |           |                |      |                   |                      |                |  |          |
| January     | 5.0       | 5.5            | 4.2  | 5.7               | -7.6                 | 6.3            | 6.4  | 4.4      |
| February    | 4.6       | 5.0            | 3.7  | 5.4               | -9.0                 | 5.7            | 5.7  | 4.3      |
| March       | 4.3       | 4.5            | 3.5  | 4.9               | -7.6                 | 5.1            | 5.0  | 4.2      |
| April       | 4.1       | 4.1            | 3.6  | 4.5               | -3.1                 | 4.7            | 4.6  | 4.1      |
| May         | 4.1       | 3.8            | 3.9  | 4.0               | 2.0                  | 4.4            | 4.2  | 4.0      |
| June        | 4.4       | 3.5            | 4.8  | 3.8               | 11.6                 | 4.0            | 3.8  | 4.1      |
| July        | 3.9       | 3.3            | 3.8  | 3.4               | 6.9                  | 3.7            | 3.5  | 4.1      |
| August      | 3.3       | 3.0            | 2.6  | 2.9               | -0.8                 | 3.4            | 3.2  | 4.1      |

<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 output <sup>1</sup> | Agriculture | Construction | Freight turnover | Retail trade turnover | Consumer expenditure | Output index of goods and services by key industries | GDP <sup>2</sup> |
|-------------|--------------------------------|-------------|--------------|------------------|-----------------------|----------------------|--|------------------|
| <b>2015</b> |                                |             |              |                  |                       |                      |  |                  |
| January     | -2.9                           | 0.1         | -0.6         | -0.3             | -9.1                  | -7.0                 | -0.6   |                  |
| February    | -1.7                           | 0.0         | -0.6         | -0.1             | -2.8                  | -0.5                 | -1.2   |                  |
| March       | 1.9                            | 0.3         | -0.7         | 2.3              | 0.1                   | -0.1                 | 0.8  | -2.6             |
| April       | -0.8                           | -0.1        | 0.0          | -1.9             | -0.3                  | -0.9                 | -4.0   |                  |
| May         | -0.6                           | 0.1         | -0.3         | -0.6             | 0.3                   | 0.2                  | 1.5  |                  |
| June        | 0.8                            | 0.4         | -0.2         | 0.4              | -0.2                  | -0.3                 | -0.6   | -0.3             |
| July        | 0.0                            | -1.3        | -1.2         | 2.4              | -0.2                  | -0.3                 | 0.6  |                  |
| August      | 0.6                            | 1.3         | -0.4         | -1.0             | -0.1                  | -0.4                 | 0.0  |                  |
| September   | 0.6                            | 0.5         | -0.1         | 0.7              | -0.7                  | -0.5                 | 0.8  | -0.2             |
| October     | -0.7                           | -1.4        | -0.9         | 2.9              | 0.0                   | -0.2                 | 0.4  |                  |
| November    | 0.1                            | 1.1         | -0.7         | -1.3             | -0.5                  | -0.5                 | -5.1   |                  |
| December    | 0.5                            | 0.3         | 0.5          | -0.1             | -0.3                  | -0.4                 | 0.3  | -0.3             |
| <b>2016</b> |                                |             |              |                  |                       |                      |  |                  |
| January     | -1.1                           | 0.1         | -1.1         | -2.8             | -1.0                  | -0.7                 | -4.7   |                  |
| February    | 3.1                            | 0.3         | 0.2          | 2.8              | 0.0                   | 1.8                  | 1.9  |                  |
| March       | -1.8                           | -0.1        | -0.3         | -1.4             | -1.0                  | -2.5                 | -0.3   | -0.2             |
| April       | -0.3                           | 0.3         | -1.2         | -1.2             | 0.0                   | 0.2                  | 0.3  |                  |
| May         | -0.8                           | 0.2         | -0.5         | -0.4             | -0.6                  | -0.4                 | -1.1   |                  |
| June        | 1.2                            | 0.0         | -0.9         | 1.3              | -0.2                  | -0.1                 | 1.2  | 0.0              |
| July        | 0.5                            | 1.2         | 0.6          | 2.0              | 0.0                   | 0.0                  | 1.2  |                  |
| August      | 0.0                            | -0.7        | -0.1         | 0.4              | -0.2                  | 0.1                  | 0.3  |                  |
| September   | -0.4                           | 0.0         | -0.3         | 1.6              | 0.1                   | 0.0                  | 0.4  | 0.2              |
| October     | 0.7                            | -0.1        | 0.6          | -1.5             | -0.4                  | 0.0                  | -0.8   |                  |
| November    | 1.2                            | 0.5         | 0.2          | 1.8              | 0.1                   | 0.2                  | 0.7  |                  |
| December    | -1.5                           | -0.1        | -0.5         | 0.4              | -0.3                  | -0.1                 | 0.1  | 0.4              |
| <b>2017</b> |                                |             |              |                  |                       |                      |  |                  |
| January     | 0.8                            | -0.2        | 0.6          | 1.8              | 0.6                   | 0.5                  | -0.9   |                  |
| February    | -1.4                           | 0.1         | 0.0          | -1.2             | -0.3                  | 0.2                  | -0.1   |                  |
| March       | 1.3                            | 0.3         | 0.4          | -0.9             | 0.5                   | 0.2                  | 0.8  | 0.6              |
| April       | 0.8                            | 0.1         | 1.0          | 3.6              | 0.0                   | 0.1                  | 0.9  |                  |
| May         | 1.6                            | 0.2         | 0.7          | -0.2             | 0.2                   | 0.2                  | 0.6  |                  |
| June        | -0.5                           | 0.0         | 0.7          | 0.7              | 0.1                   | 0.2                  | 0.2  | 0.7              |
| July        | -1.1                           | -0.1        | 0.7          | -0.5             | 0.0                   | ...                  | -0.7   |                  |

<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)

|   | 2016             | 2017    |          |       |       |      |      |      |                  | Memo item:<br>2016 |
|---|------------------|---------|----------|-------|-------|------|------|------|------------------|--------------------|
|   | Total            | January | February | March | April | May  | June | July | January-July     | January-July       |
| Output of goods and services by key industries        | 0.5              | 2.6     | -2.3     | 1.7   | 2.9   | 5.8  | 4.5  | 1.8  | 2.5              | 0.4                |
| Industrial output                                     | 1.3              | 2.3     | -2.7     | 0.8   | 2.3   | 5.6  | 3.5  | 1.1  | 1.9              | 1.3                |
| Agricultural output                                   | 4.8              | 0.6     | 0.2      | 1.1   | 0.8   | 0.3  | 1.3  | -2.9 | -0.7             | 4.4                |
| Construction  | -4.3             | -2.4    | -4.5     | -5.0  | -0.4  | 3.8  | 5.3  | 7.1  | 1.6              | -6.0               |
| Retail trade turnover                                 | -4.6             | -2.1    | -2.6     | -0.2  | 0.1   | 0.7  | 1.2  | 1.0  | -0.2             | -4.8               |
| Household real disposable money income                | -5.9             | 8.2     | -3.7     | -2.3  | -7.5  | -0.1 | 0.0  | -0.9 | -1.4             | -5.3               |
| Real wage   | 0.8              | 3.1     | 1.0      | 3.2   | 3.7   | 2.8  | 3.9  | 4.6  | 3.0              | -0.2               |
| Number of unemployed                                  | -0.5             | -3.2    | -4.6     | -10.0 | -10.4 | -8.3 | -7.9 | -5.3 | -7.1             | 2.0                |
| Unemployment (as % of economically active population) | 5.4 <sup>1</sup> | 5.6     | 5.6      | 5.4   | 5.3   | 5.2  | 5.1  | 5.1  | 5.1 <sup>1</sup> | 5.3 <sup>1</sup>   |

<sup>1</sup> Data as of the end of period.

Sources: Rosstat, Bank of Russia calculations.

Table 10

**Change in Bank of Russia forecasts of GDP<sup>1</sup> growth of Russia's trading partners**  
(%)

|       |                    | Forecast of GDP growth in 2017 |           | Memo item: country's share in aggregate GDP<br>of trading partners |
|-------|--------------------|--------------------------------|-----------|--|
|       |                    | September 2017                 | June 2017 |  |
| Total |                    | 2.4                            | 2.1       | 100.0  |
| 1     | Germany            | 1.7                            | 1.5       | 14.6   |
| 2     | China              | 6.4                            | 6.2       | 10.3   |
| 3     | Italy              | 0.9                            | 0.6       | 9.3  |
| 4     | Turkey             | 3.0                            | 2.4       | 6.9  |
| 5     | Belarus            | 0.3                            | 0.2       | 5.5  |
| 6     | Japan              | 1.3                            | 0.8       | 5.3  |
| 7     | Korea, Republic of | 2.5                            | 2.2       | 4.7  |
| 8     | Belgium            | 1.3                            | 1.1       | 4.6  |
| 9     | Poland             | 3.3                            | 2.8       | 4.4  |
| 10    | United Kingdom     | 1.6                            | 1.6       | 4.4  |
| 11    | Kazakhstan         | 2.7                            | 2.3       | 4.2  |
| 12    | The Netherlands    | 1.9                            | 1.7       | 3.3  |
| 13    | United States      | 2.1                            | 2.2       | 3.1  |
| 14    | France             | 1.3                            | 1.0       | 3.1  |
| 15    | Finland            | 1.6                            | 0.8       | 3.1  |
| 16    | Latvia             | 3.7                            | 2.5       | 3.0  |
| 17    | India              | 6.6                            | 6.8       | 1.9  |
| 18    | Switzerland        | 1.1                            | 1.1       | 1.5  |
| 19    | Czech Republic     | 2.6                            | 2.2       | 1.4  |
| 20    | Hungary            | 3.4                            | 2.9       | 1.4  |
| 21    | Slovakia           | 2.9                            | 2.7       | 1.4  |
| 22    | Lithuania          | 3.1                            | 3.0       | 1.3  |
| 23    | Spain              | 2.6                            | 2.2       | 1.3  |
| 24    | Ukraine            | 2.0                            | 2.2       | 0.0  |

<sup>1</sup> The aggregate GDP growth rate is calculated based on the shares of 24 Russia's trading partners. The share of each country was determined based on the exports to major trading partners. The aggregate GDP forecast excludes the economy of Ukraine and includes the re-exports of Russian energy commodities from the Netherlands.

Source: Bank of Russia.

Table 11

## Monetary policy rates in various countries

| Country            | Policy rate                      | Current level | Date of latest change | Previous level | Change | Number of rate changes over the past 12 months | Inflation        |                     |
|--------------------|----------------------------------|---------------|-----------------------|----------------|--------|--|------------------|---------------------|
|                    |                                  |               |                       |                |        |  | Current level, % | 12-month change, pp |
| Poland             | target rate                      | 1.50          | 04.03.2015            | 2.00           | -0.50  | 0  | 1.8              | 2.60                |
| Hungary            | base rate                        | 0.90          | 24.05.2016            | 1.05           | -0.15  | 0  | 2.6              | 2.70                |
| Czech Republic     | repo rate (14 days)              | 0.25          | 03.08.2017            | 0.05           | 0.20   | 1  | 2.5              | 1.90                |
| Romania            | base rate                        | 1.75          | 06.05.2015            | 2.00           | -0.25  | 0  | 1.2              | 1.35                |
| Bulgaria           | base rate                        | 0.00          | 01.02.2016            | 0.01           | -0.01  | 0  | 1.3              | 1.50                |
| Serbia             | key policy rate                  | 3.75          | 07.09.2017            | 4.00           | -0.25  | 1  | 3.5              | 2.80                |
| Israel             | target overnight rate            | 0.10          | 23.02.2015            | 0.25           | -0.15  | 0  | -0.7             | -0.10               |
| Brazil             | target rate                      | 8.25          | 06.09.2017            | 9.25           | -1.00  | 8  | 2.5              | -6.51               |
| Chile              | monetary policy rate             | 2.50          | 18.05.2017            | 2.75           | -0.25  | 4  | 1.9              | -1.50               |
|                    | lending rate (12 months)         | 4.35          | 26.10.2015            | 4.60           | -0.25  | 0  |                  |                     |
| China              | deposit rate (12 months)         | 1.50          | 26.10.2015            | 1.75           | -0.25  | 0  | 1.8              | 0.50                |
|                    | required reserve rate            | 17.00         | 01.03.2016            | 17.50          | -0.50  | 0  |                  |                     |
|                    | reverse repo rate                | 6.00          | 02.08.2017            | 6.25           | -0.25  | 2  | 3.4              | -1.69               |
| India              | repo rate                        | 5.75          | 02.08.2017            | 6.00           | -0.25  | 3  |                  |                     |
| Indonesia          | target rate                      | 6.50          | 16.06.2016            | 6.75           | -0.25  | 0  | 3.8              | 1.03                |
| Korea, Republic of | base rate                        | 1.25          | 09.06.2016            | 1.50           | -0.25  | 0  | 2.6              | 2.10                |
| Malaysia           | target overnight rate            | 3.00          | 13.07.2016            | 3.25           | -0.25  | 0  | 3.2              | 2.10                |
| Mexico             | target rate                      | 7.00          | 22.06.2017            | 6.75           | 0.25   | 7  | 6.7              | 3.93                |
| Philippines        | monetary policy rate             | 3.00          | 03.06.2016            | 4.00           | -1.00  | 0  | 3.1              | 1.30                |
| Russia             | repo auction rate (7 days)       | 9.00          | 19.06.2017            | 9.25           | -0.25  | 4  | 3.3              | -3.60               |
| South Africa       | repo rate                        | 6.75          | 20.07.2017            | 7.00           | -0.25  | 1  | 4.6              | -1.40               |
| Thailand           | repo rate                        | 1.50          | 29.04.2015            | 1.75           | -0.25  | 0  | 0.3              | 0.03                |
| Turkey             | repo rate (7 days)               | 8.00          | 24.11.2016            | 7.50           | 0.50   | 1  | 10.7             | 2.63                |
| United States      | federal funds rate (upper bound) | 1.25          | 14.06.2017            | 1.00           | 0.25   | 3  | 1.7              | 0.90                |
| Euro area          | refinancing rate                 | 0.00          | 16.03.2016            | 0.05           | -0.05  | 0  | 1.5              | 1.30                |
| United Kingdom     | base rate                        | 0.25          | 04.08.2016            | 0.50           | -0.25  | 0  | 2.9              | 2.30                |
| Japan              | overnight rate                   | 0.10          | 19.12.2008            | 0.30           | -0.20  | 0  | 0.4              | 0.80                |
| Canada             | target overnight rate            | 1.00          | 06.09.2017            | 0.75           | 0.25   | 2  | 1.2              | -0.10               |
| Australia          | overnight rate                   | 1.50          | 02.08.2016            | 1.75           | -0.25  | 0  | 1.9              | 0.90                |
| New Zealand        | overnight rate                   | 1.75          | 10.11.2016            | 2.00           | -0.25  | 1  | 1.7              | 1.30                |
| Denmark            | lending rate                     | 0.05          | 20.01.2015            | 0.20           | -0.15  | 0  | 1.5              | 1.50                |
|                    | certificate of deposit rate      | -0.65         | 08.01.2016            | -0.75          | 0.10   | 0  |                  |                     |
| Switzerland        | 3m LIBOR - min                   | -1.25         | 15.01.2015            | -0.75          | -0.50  | 0  | 0.5              | 0.60                |
|                    | 3m LIBOR - max                   | -0.25         | 15.01.2015            | 0.25           | -0.50  | 0  |                  |                     |
| Sweden             | repo rate                        | -0.50         | 11.02.2016            | -0.35          | -0.15  | 0  | 2.2              | 1.04                |
| Norway             | key deposit rate                 | 0.50          | 17.03.2016            | 0.75           | -0.25  | 0  | 1.3              | -2.70               |

Note: as of 12 September 2017, changes occurred from the compilation time of the previous Monetary Policy Report issue (8 June 2017) are put in colour.

Source: Bloomberg.



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## GLOSSARY

### **Adaptive expectations**

Expectations that depend on past inflation readings to a bigger extent than on factors influencing its future dynamics. Given a stable decrease in inflation, its adaptive expectations will exceed its actual level.

### **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 in the currency of the Russian Federation 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, %) + 0.5 x (share of banks reporting a moderate tightening of lending conditions, %) – 0.5 x (share of banks reporting a moderate easing of lending conditions, %) – (share of banks reporting a significant easing of lending conditions, %). Measured in percentage points (pp).

### **Bank of Russia interest rate corridor (interest rate corridor)**

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

### **Bank of Russia key rate**

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

### **Bank of Russia Lombard List**

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

### **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.

### **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.

**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).

**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.

**Current liquidity deficit/surplus**

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

**Dollarisation of deposits**

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

**Factors of banking sector liquidity**

Changes in the central bank balance-sheet items affecting banking sector liquidity, but which do not result from central bank liquidity management operations. These factors include changes in cash in circulation, changes in balances of general government accounts with the Bank of Russia, Bank of Russia operations in the domestic foreign exchange market (excluding operations regulating banking sector liquidity), as well as changes in required reserves deposited by credit institutions in required reserve accounts with the Bank of Russia.

**Financial stability**

Financial system stance characterised by the absence of systemic risks which, once evolved, may impact negatively on the process transforming savings into investment and on the real economy. In the situation of financial stability, economy demonstrates better resilience to external shocks.

**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 sell it should threats to financial stability arise.

**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.

**Funds in general government's accounts with the Bank of Russia**

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).

**Import substitution**

Substitution of imported goods by domestic goods which leads to the increase in the proportion of domestic goods in the internal market.

**Inflation expectations**

Implied, forecast and expected inflation levels which form the basis for economic decisions and future plans of households, firms and financial market participants (including about consumption, savings, borrowings, investment and loan/deposit rates).

**Inflation risks**

The risk that price growth may cause the decline in value of assets or incomes.

**Inflation targeting regime**

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

**Interest rate corridor**

See Bank of Russia interest rate corridor.

**Macro Risk Index**

An index calculated by Citibank and demonstrating the perception of risk level in the global financial markets by investors. The index is bound between 0 (low risk level) to 1 (high risk level). The index is based on the historical dynamics of emerging market sovereign Eurobond yield spreads to the yield spreads of

US treasuries, credit spreads on US corporate bonds, US swap spreads, and implied exchange rate, stock index and interest rate volatility.

### **Monetary aggregate M1**

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

### **Monetary policy transmission mechanism**

The process of transferring the impulse of monetary policy decisions to the economy as a whole and to price dynamics, in particular. The process of transmitting the central bank's signal on holding or changing the key rate and its future path from the financial market segments to the real sector and as a result to inflation. The key rate changes are translated into the economy through the following major channels: interest rate, credit, foreign currency and asset prices.

### **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 (monetary aggregate M2X).

### **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.

### **MSCI indices**

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

### **Net credit of the Bank of Russia to credit institutions**

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

### **Net private capital inflow/outflow**

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

### **Non-price bank lending conditions**

Bank lending conditions, which include loan maturity and amount, requirements for the financial standing of the borrower and collateral, additional fees, and the range of lending purposes. They are assessed on the basis of surveys of credit institutions by the Bank of Russia.

### **Non-tradable sector of the economy**

Sector of the economy engaged in electricity, gas and water supply, construction, wholesale and retail trade, motor vehicle and motorcycle maintenance, household goods and personal appliance repairs,

hotels and restaurants, transport and communications, financial activity, real estate, leasing and services, including other communal, social and personal services.

### **Open market operations**

Bank of Russia operations to regulate banking sector liquidity. They include operations on a reverse basis other than standing facilities, which are carried out with the Bank of Russia making a specific offer (usually auction-based), as well as all operations to purchase/sell securities, foreign currency and gold.

### **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).

### **PMI indices**

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

### **Relative price**

Price of a commodity (commodity group) in terms of the price of another commodity (commodity group) assumed to equal one.

### **Repo operation**

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

### **Required reserves**

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

### **Ruble nominal effective exchange rate index**

The ruble nominal effective exchange rate index reflects changes in the exchange rate of the ruble against the currencies of Russia's main trading partners. It is calculated as the weighted average change in the nominal exchange rates of the ruble against the currencies of these countries. The weights are determined according to the foreign trade turnover share of Russia with each of these countries in the total foreign trade turnover of Russia with its main trading partners.

### **Ruble real effective exchange rate index**

It is calculated as the weighted average change in the real exchange rate 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 transformations**

Transformation leading to changes in the economy structure and growth factors, and also to increases in labour productivity and implementation of new technology.

**Structural liquidity deficit/surplus**

Structural deficit is the state of the banking sector characterised by a stable demand by credit institutions for Bank of Russia liquidity provision operations. Structural surplus is characterised by a stable liquidity surplus in credit institutions and the Bank of Russia's need to conduct liquidity-absorbing operations. The level of structural liquidity deficit/surplus is a difference between the outstanding amount on refinancing operations and Bank of Russia liabilities on operations to absorb excess liquidity.

**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 quarrying, and manufacturing industries.

**Underlying inflation**

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

**VIX**

Calculated by Chicago Board Options Exchange index of expected volatility of S&P 500 stock index over the next 30-day period. VIX is constructed as a weighted average of premiums of a wide range of prices of put and call options on the S&P 500 index.

## ABBREVIATIONS

**AHML** — Agency for Housing Mortgage Lending

**BLC** — bank lending conditions

**bp** — basis points (0.01 pp)

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

**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

**CPI** — consumer price index

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

**ECB** — European Central Bank

**EME** — emerging market economies

**EU** — European Union

**FAO** — Food and Agriculture Organization of the United Nations

**FCS** — Federal Customs Service

**Fed** — US Federal Reserve System

**FPG** — fiscal policy guidelines

**GDP** — gross domestic product

**GRP** — gross regional product

**GFCF** — gross fixed capital formation

**IBL** — interbank loans

**IEA** — International Energy Agency

**IFX-Cbonds** — corporate bond yield index

**Industrial PPI** — Industrial Producer Price Index

**inFOM** — Institute of the Public Opinion Foundation

**MC** — management company

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

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

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

**MICEX SE** — MICEX Stock Exchange

**MPD** — Monetary Policy Department of the Bank of Russia

**MTVECM, TVECM** — Momentum Threshold Vector Error Correction Model, Threshold Vector Error Correction Model

**NPF** — non-governmental pension fund

**OBR** — Bank of Russia bonds

**OECD** — Organisation for Economic Cooperation and Development

**OFZ** — federal government bonds

**OFZ-IN** — inflation-indexed federal government bonds

**OFZ-PD** — permanent coupon-income federal government bonds

**OFZ-PK** — variable coupon-income federal government bonds

**OJSC** — open joint-stock company

**OPEC** — Organisation of the Petroleum Exporting Countries

**PJSC** — public joint-stock company

**PMI** — Purchasing Managers' Index

**pp** — percentage point

**PPI** — Producer Price Index

**QPM** — quarterly projection model of the Bank of Russia

**REB** — Russian Economic Barometer, monthly bulletin

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

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

**SME** — small and medium-sized enterprises

**SNA** — System of National Accounts

**TCC** — total cost of credit

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

**VCIOM** — Russian Public Opinion Research Centre

**VAT** — value added tax

**VEB** — Vnesheconombank

**VECM** — Vector Error Correction Model



