TALKING TRENDS
Economy and markets
Research and Forecasting Department Bulletin

DECEMBER 2019
CONTENTS

EXECUTIVE SUMMARY .......................................................... 3

1. MONTHLY SUMMARY ......................................................... 5

1.1. Inflation ............................................................................ 5
  1.1.1. Seasonally adjusted price rises accelerated slightly in November .......... 5
  1.1.2. Producer prices continued to decline in October ........................................ 11

1.2. Economic performance ....................................................... 12
  1.2.1. Core industries’ growth kept accelerating in October ................................. 13
  1.2.2. Industrial output keeps growing ................................................................. 15
  1.2.3. PMI indexes in November: business activity enhancement in services ....... 18
  1.2.4. October saw consumer demand recovery .................................................. 21
  1.2.5. Unemployment is once again at its lowest ................................................... 21
  1.2.6. Retail lending expansion stabilises ............................................................... 25
  1.2.7. Current account surplus shrinking ............................................................ 30
  1.2.8. The budget starts to provide stimulus to the economy ................................. 32

2. OUTLOOK: LEADING INDICATORS ........................................ 37

2.1. What do Russia’s leading indicators suggest? ............................. 37
  2.1.1. Index-based estimate: GDP growth is expected to reach potential in the first half of 2020 ................................................................. 37
  2.1.2. Analysts’ inflation expectations remain anchored ....................................... 37

3. In focus. Inflation-protected bonds as a source of information about inflation expectations .......................................................... 39

The Research and Forecasting Department prepared this bulletin based on data as of 15 December 2019.
The views and recommendations expressed in the bulletin do not necessarily reflect the official position of the Bank of Russia.
Please send your comments and suggestions to dip_bulletin@mail.cbr.ru

Cover photo: shutterstock.com.
Address: 12 Neglinnaya Street, Moscow, 107016
Bank of Russia website: www.cbr.ru
© Central Bank of the Russian Federation 2019
EXECUTIVE SUMMARY

1. Monthly summary

- Annual inflation dropped to 3.5% in November. Consumer prices, prevailing short-term disinflationary risks and the current level of inflationary pressure in the economy point to a further temporary inflation slowdown below 3% in early 2020. By the end of 2020, inflation is posed to bounce back to 4%. This will be brought about by a revival in economic activity, the fading effect of temporary disinflationary factors and monetary policy decisions which have a delayed impact. The still elevated and unanchored inflation expectations of households and businesses suggest that related pro-inflationary risks persist. According to our estimates, the somewhat accelerated growth rate of the Russian economy seen in 2019 Q3 has continued into 2019 Q4 and is poised to hold in 2020 H1. This will be driven by a revival in consumer demand, a rise in public spending, monetary easing and a generally favourable situation in the Russian financial market.

  - The ongoing inflation slowdown is largely underpinned by temporary disinflationary factors associated with mostly heavy crops, year-to-date appreciation of the rouble and the fact that inflation estimates now factor out the effects of the VAT rate hike and indexation of utility rates in January 2019. Monthly growth in prices of the most stable components of the consumer basket is holding below the level corresponding to 4% in annual terms. This is also slowing growth in consumer prices. However, as domestic demand recovered the economy registered signs of a strengthening in inflationary pressure. Our calculations show that in the months to come a trend will emerge towards inflation returning to 4% by the end of 2020.

  - Russia’s economic growth is accelerating further and, according to estimates, is poised to reach its potential in 2020 H1. Domestic demand is expanding faster thanks to a revival in households’ consumer spending and an accommodative fiscal policy since 2019 H2. The positive credit impulse that remains from the rise in lending underpins domestic demand in the economy. A slowdown in inflation boosts growth in households’ real income and consumer demand. Easing gradually, monetary conditions are not hampering growth in economic activity, to say the least. Taken together, these factors offset negative effects of subdued growth of the global economy on Russian exports.

  - Risk appetite on global financial markets, including the Russian market, remains moderate as world economic growth shows the first signs of stabilisation. However, significant risks remain that the global economy may slide into recession amid the continuing trade tensions.

2. Outlook

- GDP growth projections improved, pointing to a gradual acceleration of Russia’s economic growth in 2019 Q4–2020 Q1 to the potential.
3. In focus. Inflation-protected bonds as a source of information about inflation expectations

- Prices of inflation-indexed bonds contain indirect information about inflation expectations of financial market participants. There are currently two outstanding issues of such securities in Russia.

- Implied inflation, calculated as a difference between yields of fixed-coupon OFZs and inflation-indexed OFZs with the same maturity, has stayed considerably below 4% in recent months, although it stood above 5% just a year ago. However, it is too early to conclude based on this fact that inflation expectations of market participants have declined to such an extent and within such a relatively short period of time to the levels below the Bank of Russia’s inflation target. To obtain more reliable estimates of the market’s inflation expectations, implied inflation should be adjusted for various factors including inflation risk premium, liquidity premium, a coupon base difference, among others.

- Considerable differences in the structure of holders of fixed-rate coupon OFZs and inflation-indexed OFZs and their behavioural patterns may have a tangible effect on implied inflation dynamics. For instance, the dynamics may be low during periods when market participants expect interest rates to go down and add to their positions in fixed-rate coupon OFZs, or elevated during periods when core holders cut on their positions.
1. MONTHLY SUMMARY

1.1. Inflation

Annual inflation remains on the downtrend. Short-term disinflationary risks are still prevailing over pro-inflationary ones, with the rouble strengthening this year and the crop harvesting season successfully completed. As a result, the annual rate of consumer price rises will continue slowing in December–January.

There is still a large number of significant temporary factors behind the rapid easing of inflation. Rises in prices which are not very volatile or sensitive to temporary factors remain below the level corresponding to an inflation rate of 4%.

At the same time, signs have emerged signaling the intensification of inflation processes going forward. November’s seasonally adjusted increase in consumer services prices slightly exceeded 4% in annualized terms. World food price rises have also gained momentum.

The key rate cuts carried out this year and fiscal policy stimulus in 2020, will, with a long lag, gradually bring inflation back to 4% by the end of 2020. The continuing elevated inflation expectations may also become a factor of inflation returning to the target.

Over the medium-term horizon, pro-inflationary risks prevail over disinflationary ones. Among key pro-inflationary risks are geopolitical factors and volatility surges in financial markets, as well as possible volatility in key public finance indicators. These one-off factors may, via possible secondary effects, fuelled by still elevated and unanchored business and household inflation expectations, drive inflationary pressure higher.

1.1.1. Seasonally adjusted price rises accelerated slightly in November

- Consumer prices climbed 0.28% MoM in November, bringing annual inflation down to 3.53% YoY from 3.75% YoY in October. Food prices continue to contribute the most to annual inflation deceleration.

- Seasonally adjusted consumer price rises inched up to 0.19% MoM from 0.16% MoM in October, driven by a marginally faster pace of price rises in the food and services segments. Rouble strengthening in the year-to-date continues to have a restraining effect on consumer prices, with nonfood price movements affected the most.

- The seasonally adjusted rate of services price rises accelerated to 0.38% MoM in November from 0.28% MoM in September, exceeding 4% in annualised terms. This may have stemmed from some recovery of consumer demand.

- Meanwhile, the estimates of modified core inflation expectations remain below the level corresponding to an inflation rate of 4%.
If the rate of consumer price inflation remains on November’s level at 0.2% MoM in seasonally adjusted terms, or 0.5% MoM without seasonal adjustment, inflation will come in at 3.2% for the year.

According to Rosstat data, annual inflation stood at 3.53% in November, down from 3.57% in October (Figure 1).

Annual food price inflation slowed to 3.65% in November from 4.21% in October. A substantial input to food price inflation deceleration continued to come from sugar prices, driven by an expansion in sugar beet output. Meat and poultry prices continued to decline, largely thanks to the high base of late last year, when meat product prices were climbing at an elevated pace, prompted by the restored balance of supply and demand, as well as a number of temporary factors.

The nonfood market saw inflation slow less significantly to 3.06% in November from 3.21% in October, while the services market recorded an inflation acceleration to 3.93% in November, up from 3.82% a month earlier.
In monthly terms, prices added 0.28% MoM. Seasonally adjusted, consumer price rises edged up to 0.19% MoM in November from 0.16% MoM in the previous month, driven by the food and services price segment (Figure 3). This is still below the path leading to an inflation rate of 4%, but the gap narrowed marginally compared with that in September–October (Figure 2).

The gap with this path is still largely due to the slow pace of food price growth. Food prices went up 0.07% MoM SA in November after 0.02% MoM SA in October. This arose mainly from chicken egg and milk prices stopping to decline (Figure 5). Fruit and vegetable price decline, by contrast, gained momentum, owing to a strong output of many agricultural crops. Exclusive of price movements in chicken eggs, milk, and fruit and vegetables, the seasonally adjusted pace of food price rises was all but unchanged from October at 0.10% MoM (after 0.20% MoM SA in July–September).

The moderate food price rises seen in recent months are, above all, owed to temporary factors, such as rouble strengthening from the start of the year, producing a significant slowdown in world food price rises in rouble terms. On top of that, food price movements were favourably affected by a structural factor, such as an expansion in domestic agricultural produce output on the back of earlier investment.¹ Nevertheless, over the medium-term horizon, pro-inflationary risks related to food price movements prevail over disinflationary ones. For example, a drop in producers’ profit margins in some food markets amid output expansion may drive inefficient producers out of the markets, increasing market concentration and margins. This may in turn adversely affect prices. The opening of foreign markets to Russian agricultural exporters may produce the same type of adverse effect on prices. Prices of some produce types are currently below the world price level in Russia, hence the emerged export opportunities will push domestic prices higher.

¹ See Section 3. In Focus: agricultural output expansion has contributed to inflation deceleration. Talking Trends No 7 (35), October 2019.
In addition to the petering out of temporary factors such as produce oversupply in some markets, price rise acceleration may be driven by an increase in the rise of world food prices,\(^2\) whose movements are fairly closely correlated with those of domestic prices (Figure 4).

![Figure 4. World and domestic food prices, % YoY](image)

Source: Rosstat, FAO, R&F Department estimates.

The services sector also saw price rises accelerate to 0.38% MoM SA in November from 0.28% MoM SA in October. As a result, a seasonally adjusted rate of a services price increase exceeded 4% in annualised terms. That said, price rises gained momentum primarily in market services, which show a more flexible response to consumer demand. These include entertainment and health resort services. Increases in prices of foreign tourism services gained pace dramatically, which may be owed to the fact that in monitoring this category, Rosstat focuses on travel in European countries,\(^3\) which became more expensive as air fares rose for these destinations.

\(^2\) The dollar-price index for FAO produce rose 4.7% in October–November, with the rouble-price indicator increasing 2.2%.

\(^3\) Foreign tourism services account for 1.79% in the structure of consumer expenditure used in CPI calculation, of which European travel accounts for 1.32%.
Nonfood price rises slowed marginally to 0.16% MoM SA in November compared with 0.20% MoM SA in October. Their pace was restrained chiefly by the prices of passenger cars, electrical appliances, as well as perfumery products and cosmetics, owing largely to rouble appreciation seen from the start of the year.

This is borne out by a fairly strong dependence of electrical appliance prices on exchange rate movements (Figure 6), with demand remaining generally stable. According to GfK⁴ data released early in November, the sales of domestic and electronic appliances added 0.7% YoY in the third quarter of 2019, rising 4.6% YoY in the first–third quarters. It is noted that a substantial sales growth was posted in the market for small domestic electronic appliances (up 5.9% YoY in the third quarter) and telecommunications (a rise of 5.0% YoY). Retailer Svyaznoy⁵ data also indicates demand growth, with smartphone sales rising 8% YoY in money terms and 2.2% in physical terms in January–September.

---

⁴ TEMAX Reports. "Result of GfK TEMAX for Russia in the third quarter of 2019". 06.11.2019.
⁵ Svyaznoy retail chain. "Russians bought nearly 20 million smartphones over the first nine months of 2019". 17.10.2019.
A decline in the indicator stands for Rouble appreciation against the US dollar, an increase stands for Rouble depreciation.

The mean of the estimates of modified core inflation indicators declined to 0.14% MoM from 0.17% MoM in October (Figure 7). The estimates stand below overall consumer price inflation because modified core inflation indicators are, after all, exposed to the influence of temporary factors, including rouble exchange rate movements. Nevertheless, the estimates are found to fall short of the level corresponding to an inflation rate of 4% even upon adjustment for exchange rate movements (Figure 7). However, the experience of 2017–2018 suggests that the estimates can very quickly change towards a higher level. This makes it difficult to interpret these and equivalent estimates in analysing inflationary pressure.
The first days of December saw consumer prices continue to rise at a much slower pace than in the comparable period last year (Figure 9). The rate of price rises for fruit and vegetables and the rest of the basket monitored on a weekly basis remains moderate in seasonally adjusted terms (Figure 10).

If the pace of consumer price rises remains on November’s level in seasonally adjusted terms (0.2% MoM SA, 0.5% MoM without seasonal adjustment) inflation will come in at 3.2% for 2019.

1.1.2. Producer prices continued to decline in October

- Industrial producer prices fell 4.9% YoY in October after their 1.2% YoY decline in September (Figure 11). Price decline acceleration was posted in both extractive and manufacturing industries.

- A substantial contribution to an inflation slowdown in industry throughout the second half of the year came from producer prices in energy industries (oil extraction and refining), owing to a decline in world oil prices.

- Producer price growth has become negative in many consumer goods (Figure 12). The Meat product processing, manufacture of vegetable oils, sugar, and household electronic appliances have posted a year-on-year price decline. This indicates the current absence of pressure from producer prices (cost-pushed inflation) on the above industries’ consumer prices. At the same time, the situation may change rapidly, as at the start of 2018.
1.2. Economic performance

Russia’s economic growth continues to gain pace and is, according to estimates, on course to reach potential in the first half of 2020.

The key engine of growth is the acceleration of domestic demand driven by a recovery of household expenditure, a rise in government purchases of goods and services along with an enhancement in government investment. The continuing credit impulse from lending expansion supports domestic demand. The monetary conditions, easing gradually, are currently not hampering an economic activity upturn, to say the least. All together, this has allowed offsetting the negative impact of the global economic slowdown on Russian exports.

A further budget expenditure expansion in 2020 and monetary easing should boost Russia’s economic growth in the quarters to come in the absence of significant external shocks, such as a possible new round of global economic slowdown.

---

6 The calculation used comparable goods in the CPI and PPI structure, such as meat products, fish products, butter and fats, dairy products, pasta, sugar, tea, coffee, clothing, footwear, detergents and cleaning solutions, perfumery products and cosmetics, household electronic appliances, and furniture. They account for 30% of the consumer basket.
1.2.1. Core industries’ growth kept accelerating in October

- Core industries' output expanded year on year in October, fuelled by an improvement in the performance of retail and wholesale trade, the manufacturing sector, and the construction industry.
- The other core industries’ contribution was also positive despite a slowdown in growth.
- One exception was the transportation industry, where negative performance had persisted for several months.

Core industries' output growth (core industries’ index, CII)\(^7\) accelerated year on year to come in at 2.9% YoY in October, up from 2.3% YoY a month earlier, reaching the highest level since October 2018 (Figure 13). If the above trend continues, it would be reasonable to expect positive GDP data for the fourth quarter (Figure 14).

![Figure 13. Contribution of industries to the CII in 2014–2019, % YoY](image)

*Source: Rosstat, R&F Department estimates.*

All core industries, except for transportation, made a positive input to CII performance, with retail and wholesale trade, manufacturing, and construction as the key growth engines.

---

\(^7\) The core industries’ index is calculated by aggregating seven industry-specific indexes (agricultural production; mining and quarrying; manufacturing output; freight traffic; wholesale and retail trade sales; and activities such as water supply; sewerage, waste management and remediation; as well as electricity, gas, steam and air conditioning supply; as well as construction, with weights corresponding to the respective industry’s share in Russia’s gross value added in 2016.
The largest input to CII growth came from trade, owing to a sharp rise in retail and wholesale sales. Retail sales gained pace to 1.6% YoY from 0.7% YoY in September. This performance was driven by a sales acceleration in both the food and nonfood segments, up 1.3% YoY and 2.0% YoY, respectively. Retail sales growth played a part in a wholesale sales expansion to 8.0% YoY from 4.6% a month earlier, which was also buoyed by an improving performance of manufacturing. Wholesale sales growth acceleration may have also been helped by an increase in budget expenditure: we estimate that general government expenditure to purchase goods and services rose 18.5% YoY in real terms in October. The wholesale sales gain was secured mainly by the Central, Northwestern, and Privolzhsky federal districts, which account for 75% of Russia’s total wholesale sales.

Manufacturing output growth gained 3.7% YoY in October compared with 3.2% in September, helped by output expansion in most core industries, except for the manufacture of metals (down 4.3% YoY), motor vehicles (a decline of 6.6% YoY) and other transport equipment (a fall of 5.6% YoY).

The construction industry saw output growth continue to accelerate in October, up 1.0% YoY versus a 0.8% YoY rise in September. This trend also follows from Rosstat’s third quarter survey of construction companies, indicating some business activity improvement, as suggested by an order book expansion, a rise in capacity utilisation and an increase in the physical volume of operations.

October’s output growth remained as robust as in 2018 in the agricultural sector, albeit slowing slightly to 5.2% YoY from 5.6% YoY in September. Both crop production and livestock farming showed sustainable growth. The harvesting of the key crops has not yet been completed. According to preliminary Rosstat data, crops harvested as of November 1, exceeded last year’s for cereals and grain legumes, which posted a rise of 7.0% YoY, sugar beets, up 19.9% YoY, and sunflower seeds, a 24.1% YoY increase. Potatoes and vegetables output is, however, lagging by 1.6% YoY and 0.9% YoY, respectively, but may still come abreast with last year’s level before harvesting has been completed. Livestock farming retains
its upward trend in both meat and dairy segments with a gain of 3.6% YoY and 3.8% YoY respectively.

Mining and quarrying posted a 0.9% YoY expansion compared with 2.5% YoY in September. This was above all due to a 1.3% YoY fall in crude oil production prompted by the implementation of the OPEC+ agreement.

The crude oil production drop took some of the blame for the transportation industry's poor performance, with freight traffic contracting 0.2% YoY in October. It was brought about by, among other things, a 3.7% YoY fall in the rail shipping of crude oil and petroleum products, a key factor affecting freight rail traffic in October, down 0.1% YoY compared with a 1.3% YoY rise a month earlier. Inland waterway, maritime and air transport freight traffic, accounting for 2% of total freight carriage, also declined.

1.2.2. Industrial output keeps growing

- Annual industrial output growth slowed somewhat, posting a 2.6% YoY rise in October and a monthly gain of 0.3% MoM SA relative to September.
- Mining and quarrying output slipped 0.4% MoM SA, dragged down by a fall in oil extraction, whose level, however, remains above the OPEC+ quotas.
- Manufacturing expanded output 0.7% MoM SA in October, with annual growth accelerating to 3.7% YoY.
- Manufacturing growth was driven by an expansion in the output of intermediate goods, primarily in the manufacture of refined petroleum products, which continues to recover as oil refineries complete their repair and maintenance operations.
- Consumer goods output generally rose, with the exception of passenger cars. Production of investment goods is affected by significant fluctuations in the output of electronic products and other transport equipment.

Industrial output gained 2.6% YoY and 0.3% MoM SA in October, according to seasonally adjusted estimates (Figure 15).

The performance of mining and quarrying restrained industrial output expansion in October. Annual growth slowed to 0.9% YoY, the lowest level since January 2018. In monthly terms, extraction shrank 0.4% MoM SA compared with September (Figure 16). The poor performance of the sector stemmed from a crude oil extraction drop of 0.2% MoM. However, the current level of extraction is still above the quotas specified by the OPEC+ agreement.
Overall, mining and quarrying output is restrained not only by crude oil extraction but also by slowed annual growth in the output of services provided within this industry. In October, the sector partially rebounded after an output fall in September, but relative to last year output gained 4.8% YoY, whereas the start of the year saw an average growth rate of 10% YoY.

Manufacturing’s annual growth continued to gain pace, reaching 3.7% YoY in October. The strong growth was driven by a positive contribution of individual industries, such as manufacture of electronic products and petroleum refining products (Figure 18). Relative to September, manufacturing showed an expansion of 0.7% MoM SA.
The key positive inputs came from industries meeting *intermediate demand*. This was, however, largely helped by one-off factors. *On the one hand*, the manufacture of refined petroleum products posted an uncharacteristically strong growth of 3.7% MoM, continuing to rebound after its plunge in the summer months. This enabled the industry to exceed its output level posted in the spring, prior to the start of extensive repair and maintenance operations (Figure 19). *On the other hand*, the manufacture of metals sees continued output volatility: production growth of 2.2% MoM SA was posted in October, but this does not imply significant positive trends in the industry (Figure 18). Although manufacture of basic iron and steel, for example, added 1.2% MoM SA in October, the industry is expected to retain its poor performance in the face of the negative global trend in steel output. At the same time, among industries meeting *intermediate demand* one can cite manufacture of chemical products as an industry enjoying a sustainable positive trend, rising 1.3% MoM SA in October. Capacity expansion may enable this performance to continue going forward.

Industries meeting *investment demand* had mixed effects on manufacturing as a whole in October. A rise of 4.1% MoM SA in the output of electronic products, probably due to a temporary factor, such as export deliveries to Turkey, made a positive contribution to overall performance. We note that manufacture of railway locomotives and rolling stock broke a sustainable upward trend which took shape as early as February, posting an output decline for the second consecutive month.

Output of *consumer goods* declined in October, based on our estimates. The sector is, however, maintaining its upward trend, fuelled above all by a positive performance of the largest industry, the manufacture of food products, up 0.3% MoM SA in October. One can also point out a dramatic expansion of 8.4% MoM SA in the manufacture of pharmaceutical products. The manufacture of durable consumer goods retains its downward trend. This is largely driven by a 3.4% MoM SA motor vehicle output contraction, with sales figures remaining very modest.

---

**Figure 19. Manufacturing industries’ output, December 2012=100%, seasonally adjusted**

- **Food**
- **Tobacco (rhs.)**
- **Beverages**
- **Wearing apparel (rhs)**
- **Leather and related products**
- **Textiles**

---
1.2.3. PMI indexes in November: business activity enhancement in services

- The IHS Services PMI index keeps pointing to a substantial business activity expansion in the services sector (55.6). The key growth driver was a steady rise in domestic demand (54.3).

**Source:** Rosstat, R&F Department estimates.
November's manufacturing PMI plunged to 45.6, the lowest level since May 2009.

We believe that such weak manufacturing data stems primarily from the polled exporting companies' pessimism regarding the outlook for external orders amid global demand slowdown.

November's composite PMI for Russia showed a business activity expansion in the economy, albeit at a slower pace than in October, weighed down by a dramatic output fall in manufacturing.

November's manufacturing PMI indicates a decline acceleration in the sector's business activity. The seasonally adjusted index slumped to 45.6, the lowest level since May 2009 (Figure 20).

The fall in the business activity index stems from a continued weakening of demand due to a shrinking of the customer base. The output index slipped from 46.1 to 45.5, with the new orders index plummeting to 42.8. The export orders index also dwindled to 42.6, weighed down by a contraction in orders from companies' key trading partners. As business activities decline, companies continue to streamline their operations, reducing employment (47.7) and inventories (45.3). Manufacturers also report a decline in optimism regarding the outlook for future output, with the relevant perceptions hitting the lowest level since late 2017.

The PMI index and other surveyed-based indicators (Rosstat, Institute for Economic Policy (IEP) surveys) for industry have in recent months indicated the potential triggers of an output decline in manufacturing. On top of that, Rosstat and IEP survey data point to a significant weakening of demand, which is also in line with PMI readings. In comparing PMI performance and seasonally adjusted trends of manufacturing output, we do not find a significant correlation between these figures over the last several years (Figure 22, Figure 23). This divergence of the indicators is likely to arise from the specifics of the PMI survey sample, which does not fully cover the entire sample of manufacturing companies.
The seasonally adjusted IHS Markit for services edged down from 55.8 to 55.6 in November, remaining above the long-term trend (Figure 21). The sector’s business activity expanded as demand from both existing and new customers strengthened further, although growth in new orders slowed slightly to 54.3 from 54.9 in October. The respondents report a drop in external demand, which fell below 50 for the first time since July, although the decline was only marginal. Still, three out of seven subsectors\(^8\) noted a contraction in new orders from abroad, with the finance and insurance sector showing the fastest pace of decline. As demand rose, companies continued to scale up employment in the sector: the pace of growth in jobs was all but unchanged at 52.0. Moreover, unfulfilled orders continued to dwindle (49.8), albeit at the slowest pace since April 2018, with the index dropping just below the 50 threshold.

Despite the current rise in demand and production expansion, respondents’ expectations for future business activity slumped to the lowest level since August 2018, from 67.8 to 62.8, amid the persisting economic uncertainty and concerns over further trends in demand. In our view, changes in the services sector’s indicators do reflect an emerging moderate recovery of domestic demand amid a decline in the negative impact of domestic factors restraining economic growth. This goes along with companies’ concerns over further global economic slowdown, which take a toll on demand from foreign customers and result in respondents’ more moderate expectations for their companies’ future business activity.

\(^8\) The consumer sector (excluding retail trade), transportation, communications, finance, insurance, real estate operations, and business services.
The composite PMI for output showed that production grew in November but at a lower rate, with the index going down to 52.9. A business activity expansion in services failed to compensate for a dramatic output fall in manufacturing. A slowdown in total output growth is, according to IHS data, at odds with a more positive performance of the R&D Department’s news-based business activity index (Figure 24), which, however, more accurately reflects business activity changes over a longer three-month horizon.  

1.2.4. October saw consumer demand recovery

- Retail sales growth sharply accelerated in October to reach 1.6% YoY in both food and non-food segments. Adjusted for seasonal and calendar factors, retail sales gained 0.5% MoM.
- Consumption is expanding amid continued growth in real wages as inflation slows. Public sector wage indexation in October may have buoyed November’s retail sales.
- Survey data on household consumption suggests its moderate increase. As consumer lending expansion loses momentum, gradual improvement in household sentiment and expectations may provide further support to consumption.

October saw retail sales expansion accelerate after a protracted slowdown over the previous three months. Annual retail sales growth came in at 1.6% YoY, up from 0.7% YoY in September, reaching the level of June 2019 (Figure 26). Both food and non-food segments enjoyed growth acceleration – to 1.3% YoY and 2.0% YoY, respectively.

---

9 For details, see analytical note “Texts of economic news: a useful addition to official statistics”
Seasonally adjusted monthly data indicates a sizable rise in consumption: retail sales expanded 0.5% MoM (Figure 27). It is noteworthy that a contraction in food sales in July–September has come to a stop, while non-food retail sales growth continued (up 0.5% MoM SA in both categories). What is more, October’s plunge in car sales did not affect non-food retail sales dynamics suggesting growth acceleration thanks to other categories.

Consumer demand may have been buoyed by a continued wage growth in October (Figure 29). Moreover, public sector wages were indexed at the start of October, likely boosting consumption growth. At the same time, we note that retail lending expansion continues to lose
ground, with the credit impulse\textsuperscript{10} from retail lending coming close to zero in the third quarter (Figure 28).

Survey data from Romir research holding company\textsuperscript{11} is in line with consumption growth acceleration in October. Real everyday household expenditure rose from the same periods of previous years (Figure 30). The end of the year traditionally sees a seasonal spending increase ahead of autumn discounts and the New Year holidays.

The Nielsen\textsuperscript{12} consumer confidence index suggests a gradual optimism recovery as evidenced by respondents’ perceptions. The index rose 4 points from the second quarter, coming close to the 2015 level (Figure 31). All the components of the index showed growth but the survey data continued to evidence households’ preference of the frugal consumption model: the share of those who began to spend money sparingly rose to 69% from 67% in the second quarter. About half of consumers sought to cut spending on clothes (56%) and public entertainment (52%), also switching to less expensive foodstuffs (54%).

We expect consumption to grow at a moderate pace, buoyed by the positive performance of real wages (see also Subsection 1.2.5.)

\textsuperscript{10} The credit impulse is a ratio of change in lending growth (the second-order derivative of lending changes) in absolute terms to retail sales.

\textsuperscript{11} Russians’ expenditure posted one of this year’s highest readings / Romir research holding company. 14.11.2019.

\textsuperscript{12} Optimistic outlook: the consumer confidence index keeps rising / Nielsen. 13.11.2019.

The index reflects current perceptions and expectations of “online-households” and is made up of the following three components: consumer perceptions of job prospects in the labour market within 6 months to come, personal finances within 6 months to come, and immediate spending intentions.
1.2.5. Unemployment is once again at its lowest

- The unemployment rate again dropped to its lowest levels in October after edging up in September. All-time unemployment lows are viewed as arising from structural demography-related factors, which predetermine the low natural unemployment rate in general.

- Real wage growth accelerated marginally in September on the back of inflation easing and a nominal wage rise gaining pace in education. Private sector nominal wage growth stabilised at about 7% YoY.

The number of unemployed persons stood at 3.5 million, or 4.6% of labour force, at the end of October (Figure 32). September’s rise in the seasonally adjusted unemployment rate was, as expected, temporary.

Meanwhile labour demand dwindled somewhat in September–October. The requirement of employees declined somewhat according to Rosstat data: there were 0.3% fewer vacancies than a year earlier. October data from HeadHunter also evidences a 7.0% YoY slowdown in the new vacancies increase (Figure 33).

Figure 32. The unemployment rate by year, %

Figure 33. Employers’ demand for new workers, % YoY

Source: Rosstat.

Source: Rosstat, HeadHunter.

September saw nominal wage growth accelerate from 6.8% YoY to 7.2% YoY, with a real wage increase gaining pace from 2.4% YoY to 3.1% YoY. The rate of real wage growth has in recent months been stable at 2.0%–3.0% YoY (Figure 34).

Wage growth acceleration was posted primarily in the public sector, up from 4.6% YoY to 6.4% YoY, led by education, where wage increases accelerated to 7.9% YoY in September after a sharp temporary slowdown to 1.6% in August (Figure 35) due to the high base of 2018: it was in August that education saw a peak of wage growth last year.
1.2.6. Retail lending expansion stabilises

- Seasonally adjusted retail lending expansion, inclusive of change in the principal of loans providing collateral for mortgage-backed securities (MBS) and a write-down by an individual bank of a part of the portfolio transferred to an SPV, stabilised just below the August–September level in October–November. Three-month annualised rate came in at 15.7%.

- The write-down by an individual bank of a part of the mortgage loan portfolio transferred to an SPV in October brought down the pace of mortgage lending growth in the banking sector. The all-time lows of the mortgage lending rates achieved recently are set to support demand and growth rates in the sector going forward.

- After the borrower’s debt service to income ratio had started to be used, seasonally adjusted growth in unsecured consumer lending eased from 1.7% MoM to 1.5% MoM in October, suggesting a gradual portfolio expansion slowdown, which does not threaten economic growth.

- Rouble corporate lending continues to expand at a pace estimated as sustainable in the long run.

Retail lending growth adjusted for seasonal factors and change in the principal of loans providing collateral for mortgage-backed securities (MBS), as well as another write-down of a part of the retail loan portfolio transferred to an SPV as collateral for the subsequent issuance of mortgage-backed securities, stabilised just below the August–September level (Figure 36). Three-month average annualised growth came in at 15.7%. This may indicate consumer lending’s gradual response to the introduction of add-ons to risk weights depending on the borrower’s debt service to income ratio as of October 2019.
Year-on-year growth in the banking sector’s retail loan portfolio slowed to 18.7%\(^{13}\) in November, rouble retail lending expansion softened to 18.9% YoY from 21% YoY in September (Figure 37). Adjusted for change in the principal of MBS loans and a write-down of a part of the retail loan portfolio in October, the pace of rouble retail lending expansion slowed from 21.7% YoY in September to 19.7% YoY in November 2019.

The performance of the banking sector’s retail loan portfolio was significantly affected by another write-down of a part of the retail loan portfolio in October as collateral for future issuance of mortgage-backed securities. Securitization allows reducing risk weights in calculating the capital adequacy ratio and is therefore regarded as an attractive instrument by some banks.

Retail lending growth adjusted for seasonal factors and change in the principal of loans providing collateral for mortgage-backed securities (MBS), as well as another write-down of a part of the retail loan portfolio transferred to an SPV as collateral for the subsequent issuance of mortgage-backed securities, after a technical acceleration in October (which may have occurred because the algorithms of seasonal adjustment failed to fully take into account the write-down of a part of the portfolio transferred to an SPV) returned in November to September’s growth rate – just below 1.2% MoM. A similar performance was recorded a year ago, in October 2018, which also saw a sizable portfolio write-down: seasonally adjusted growth returned to its more usual level as early as the following month, November 2018 (Figure 41). Demand for mortgage lending is likely to be supported by a reduction in mortgage lending rates. The average rate on rouble mortgage loans fell to an all-time low of 9.2% in November from 9.68% in September. Meanwhile, both the key interest rate and yields of 10-year government bonds point to the potential of a further decline in mortgage lending rates (Figure 38, Figure 39).

\(^{13}\) Here and further on, annual growth rate is exclusive of credit organizations with revoked banking licenses.
After the borrower’s debt service to income ratio had started to be used in calculating add-ons to risk weights, seasonally adjusted growth in unsecured consumer lending eased from 1.7% MoM to 1.5% MoM in September (Figure 40), suggesting a gradual portfolio expansion slowdown, which does not threaten economic growth. Three-month annualised seasonally adjusted portfolio growth slowed to 18.8%

We note that the main contribution to retail banks’ unsecured consumer loan portfolio growth comes from large and medium-sized highly capitalised banks (Figure 42). Since April 2019, large and medium-sized low-capitalized banks have shown much slower growth than large and medium-sized highly capitalized banks. This may be owed to raising, as of April 1, 2019, risk weights for consumer loans provided to borrowers with debt service to income ratios of 10–30%, which may have started to hamper the portfolio expansion at the same pace as

---

14 In which retail loans account for more than 20% of their assets.
previously. At the same time, October 2019 saw no significant changes in the unsecured consumer loan portfolio performance, which bears out the sector’s gradual slowdown.

It should be noted that small retail banks, regardless of their capital adequacy levels, showed more modest rates of unsecured consumer lending expansion throughout 2019. Meanwhile, their total consumer loan portfolio contracted marginally in October, which may be due not so much to capital constraints after another raise of risk weights for risky borrowers, as to other factors, whose persistence can only be estimated on a longer observation period.

**Figure 42. Unsecured consumer lending growth by bank group (index, 100 – 1 January 2019)**

Rouble corporate lending generally maintains the pace of growth viewed as sustainable on a long-term horizon. Its three-month seasonally adjusted growth stood just above 8% in annualised terms in October but declined below 5% in November. Corporate lending expansion slowdown in November came on the heels of the rouble loan portfolio contraction in several large banks, which may have been a one-off effect of a balance-sheet cleanup in these banks. The banking sector’s total loan-loss provisions for the rouble corporate loan portfolio contracted by 145 billion roubles (Figure 43). Given the stable profit performance, this may point to a significant amount of write-offs in provisions set aside earlier.
Rouble lending growth slowed year on year to 8.7% YoY in November from 10.8% YoY in September, while foreign currency lending contraction slowed from -13.1% YoY in September to -7.3% in November. Overall, corporate lending expansion adjusted for foreign exchange revaluation, gained pace somewhat from 3.7% YoY in September to 4.2% YoY in November.

The continuing positive credit impulse from lending growth supports a rise in domestic demand. That said, a credit impulse reduction related to the banking system’s claims on households does not hamper consumption growth acceleration as household income rises. The credit impulse for claims on nonfinancial organizations has held above zero since the start of 2019.
1.2.7. Current account surplus shrinking

- The current account surplus narrowed in January–November 2019 from a year earlier, dragged down by a shrinking trade surplus.

- Export contraction was driven mainly by oil price movements and global economic slowdown. At the same time, whereas the first half of the year saw imports declining, a rise in imports was registered in recent months on the back of domestic demand recovery, diminishing the trade surplus further.

- Import growth along with the risks of global economic slowdown, constraining export potential, may trigger a further shrinking of the current account surplus.

According to a Bank of Russia estimate, the current account surplus came in at USD 71.6 billion, down 30% from USD102.2 billion a year earlier.

The current account surplus is dragged down mainly by the trade balance. An export decline from last year’s levels was prompted mainly by falling oil prices. Moreover, it was in recent months that the shrinking of the trade surplus became more pronounced. The export fall accelerated in October–November 2019, as an overall export contraction reached 6.2% YoY in January–November after a 4.6% YoY drop in January–September 2019. Meanwhile a 0.4% YoY import decline in January–September 2019 gave place to import expansion in October–November 2019, as suggested by preliminary data on imports from other than former USSR countries in October–November.\(^{15}\)

Based on Federal Customs Service statistics, imports from other than former USSR countries rose 8.5% YoY in November versus 11.6% YoY in October and 5.4% YoY in September. Imports are volatile in month-on-month terms, but overall, the second half of 2019 saw a gradual rise in monthly import volumes (seasonally adjusted).

\(^{15}\) Is a good leading indicator of total imports.
We note that an import enhancement in recent months was chiefly fuelled by an upward trend in the imports of chemical products, with pharmaceuticals outpacing other import items in this category. We believe that there are two causes behind this development, one of which may be sustainable, and the other – transient. First, it is a sharp rise in the purchase of expensive preparations as part of the federal project Combating Cancer. Since financing for the programme is planned to expand next year and stay on this level for several years, this may provide a substantial support to imports in the medium term. Second, medication purchases may have increased due to pharmaceutical companies beefing up their stocks ahead of the introduction, as of 1 January 2020, of mandatory medication labelling. Since pharmaceuticals produced or imported prior to 1 January 2020 are allowed to be sold without labelling until their expiration dates, this may have temporarily boosted the purchases of foreign pharmaceuticals late in 2019 for labelling to be avoided. As the introduction of labelling has been postponed until July 1, pharmaceutical imports can be expected to decline in the coming months. Other import categories rise much more slowly. Meanwhile investment import categories showed signs of gradual, albeit so far unsteady growth in demand.

As regards the financial account for January–November 2019, the private sector’s net lending to the external sector contracted drastically to USD 33.7 billion from USD 54.0 billion in January–November 2018. Banks as a whole reduce their liabilities at a pace comparable with an estimated schedule of external debt repayment and do not seem to be willing to scale up their foreign assets. Companies continue to expand foreign assets at the same pace as a year earlier. Unlike 2018, this year companies draw foreign exchange funding from abroad, which does not, however, exceed a rise in foreign assets.

---

16 The funding of the Combating Cancer project for 2019–2022 is planned at 101/189/182/187 billion rubles a year, a significant part of which may finance the purchases of pharmaceuticals.

17 The launch of labelling may now be postponed until 1 July 2020.
Note that international reserves posted almost no change in October–November 2018 because of the Bank of Russia’s decision to suspend foreign exchange purchases as part of the fiscal rule from August 2018 to the start of January 2019. This and the shrinking of the current account surplus seems to have indirectly brought about a decrease in net lending to the private sector compared with last year.

1.2.8. The budget starts to provide stimulus to the economy

- Real growth in general government revenue eased in the third quarter and October of 2019, weighed down by falling oil and gas revenue. Non-oil and gas revenue expansion, however, gained momentum, driven by a rapid rise in VAT and profit tax revenues.
- Real budget spending soared in all items of economic classification, including capital expenditure, thanks to, among other things, stepped up funding of the national projects.
- The four-quarter rolling budget surplus started to decline, while the accumulation of extra oil and gas revenue continued. Revenue balances placed on commercial banks’ deposits expanded dramatically. Public debt kept rising, while net debt continued to decline.
- The fiscal sector’s impact on GDP growth changed from restraining to stimulating. The direct positive effect in the third quarter and October is estimated at about 0.5 pps and 1.0 pps of GDP, respectively, after a negative effect of 0.5–1.0 pp, respectively, in the first–second quarters. We expect the stimulating effect to continue in the fourth quarter.

Revenue. The third quarter of 2019 saw general government revenue growth slow in both nominal (to 4.7% YoY from 10.3% YoY in the second quarter) and real terms (to 3.2% YoY from 5.4% YoY18). Revenue started declining in real terms (-3.2% YoY) in October (Figure 47), brought down by a fall in oil and gas revenue. The key negative contribution came from an oil price drop of 17% YoY in dollar terms in the third quarter (Figure 48), with rouble appreciation against the US dollar, as well as a decline in oil and gas extraction and exports also restraining revenue expansion.

Against this backdrop, non-oil and gas revenue year-on-year growth gained momentum in October, with VAT, collected at a raised rate from the second quarter, taking the lead. A profit tax revenue rise slowed but remained strong. Labour tax revenue (personal income tax and insurance contributions) continued to strengthen. Excise tax revenue maintained its downward trend.

---

18 The estimation of revenue performance in real terms uses a GDP deflator. We deemed it to be an average between the consumer price and producer price indexes at -0.6% YoY.
Expenditure. Budget expenditure was stepped up significantly in the third quarter (above all in September). Non-interest expenditure went up 14.5% YoY in nominal terms and 12.9% YoY in real terms, up from 5.1% YoY and 0.5% YoY, respectively in the second quarter. Non-interest expenditure growth strengthened further in October to come in at 12.7% YoY in real terms (Figure 49). All expenditure items in economic classification posted a performance acceleration. We note an impressive capital expenditure increase, its pace almost doubling in October. This largely reflects stepped up funding of the national projects.

We note three specifics of expenditure performance. First, a poor performance in the first half of 2019 relative to 2018 and catching-up expenditure in the second half of 2019. Second, a much stronger expenditure performance by Russian regions versus the federal government. Whereas previous years saw a large year-end expenditure “overhang” accumulated on the regional level, now it is on the federal level. These specific features are in large part related to the implementation of the national projects, which are funded primarily from the federal budget. Third, interest expenditure performance is far behind the 2018 numbers, above all in terms of external debt servicing. A look at the general government non-interest expenditure number reveals that a spending gap with 2018 was all but filled in October (Figure 50).
Budget balance and finance sources. The strong budget expenditure growth turned around the 12-month rolling average of the budget balance. General government balance weakened to 2.9% of GDP in October, primary non-oil and gas balance dropped to -4.2% of GDP (Figure 49, Figure 50).

Total public debt (excluding intergovernmental loans) rose 0.3 pp to 14.1% of GDP in the third quarter (Figure 53). This performance was driven by an increase in domestic debt.
Russia’s Finance Ministry reduced the issuance of government securities 3.4 times compared with a record high total in the second quarter, thus falling short of planned 300 billion roubles.

The accumulation of extra oil and gas revenue under the fiscal rule continued (the 2018 revenue was transferred to the National Wealth Fund in July). The potential NWF total expanded 0.6 pp to 9.3% of GDP in the third quarter (including a positive foreign exchange revaluation and accrued funds that have yet to be transferred to the NWF). Meanwhile, the NWF’s actual liquid part stood at 5.8% of GDP as of 01.10.2019 (another 1.5% of GDP accounts for investment projects and 2.0% of GDP is revenue to be transferred in 2020) (Figure 54).

Revenue balances placed on commercial banks’ deposits at a faster pace expanded (revenue held in a unified Treasury account dwindled). Net debt kept declining.

**Effect on GDP growth.** The fiscal sector’s effect on GDP growth changed from restraining to stimulating in the third quarter. Growth in the removal of funds from the private sector via the fiscal channel slowed, while transfers to the private sector and final demand gained pace significantly in real terms. Estimates using fiscal multipliers adjusted for a lagged impact of previous periods, showed a positive direct effect of below 0.5 pp in the third quarter and about 1.0 pp\(^1\) in October after a negative impact of 0.5–1.0 pp in the first–second quarters. The direct effect may have been complemented by an indirect positive impact via the enhancement of current fiscal policy credibility in the eyes of economic agents.

We expect the fiscal stimulation of GDP growth to develop further in the fourth quarter as the removal of funds from the private sector via the budget channel is scaled down relative to

---

same period of 2018, with budget expenditure stepped up further, including for financing the national projects. We project a nearly zero fiscal effect on GDP growth for the full year 2019.
2. OUTLOOK: LEADING INDICATORS

2.1. What do Russia’s leading indicators suggest?

2.1.1. Index-based estimate: GDP growth is expected to reach potential in the first half of 2020

- Our current estimate of GDP growth in the fourth quarter of 2019 was revised upwards to 0.3% QoQ SA from an estimate of 0.2% QoQ SA in October.
- Short-term figures coupled with a number of leading business activity indicators give reason to expect a gradual GDP growth acceleration over the first half of 2020 to a level of potential.

The current index-based GDP estimate is so far only based on short-term October statistics and a number of real-time November indicators. Nor does it take into account a preliminary Rosstat estimate of third quarter economic growth. It may be revised significantly as short-term data is released in the months to come.

<table>
<thead>
<tr>
<th></th>
<th>November % QoQ SA</th>
<th>October % QoQ SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 2019</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Q1 2020</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Q2 2020</td>
<td>0.3-0.4</td>
<td>-</td>
</tr>
</tbody>
</table>

2.1.2. Analysts’ inflation expectations remain anchored

- Analysts slightly revised their forecasts for the key rate trajectory in November. They expect the rate to be cut to 6% before the end of the first quarter of 2020 and to subsequently stay on this level.
- Analysts’ medium-term inflation expectations remain anchored on the level of the Bank of Russia target. Their projected inflation path for the coming quarters was revised down marginally.
The Bank of Russia board of directors’ December 13 decision to cut the *key rate* was expected. A Bloomberg consensus forecast assumed in November that the key rate will be cut by 25 bp from 6.50% to 6.25% and by another 25 bp in the first quarter of 2020, to stay at 6% over the entire forecast period (at least until the end of 2021) (Figure 82). The forecast revision versus October was only concerned with the key rate decisions at board meetings in half a year to come – this was largely a technical revision. October’s poll was conducted prior to the board meeting, hence November’s analyst forecast factored in the board’s decision to cut the rate by 50 bp.

Analyst inflation expectations were not much changed. The inflation path was revised down marginally for the coming three quarters. Inflation is expected to decline to 3.0% YoY for the first quarter of 2020 and to rebound to 3.8% YoY by the end of 2020. Analysts’ forecast of inflation below 4% seems to assume that a short-term effect of temporary disinflationary factors will still cover the very beginning of 2020. That said, analysts’ medium-term expectations remain anchored at the Bank of Russia 4% target (Figure). The fact that analysts expect inflation to reach 4% over the medium term, with the key rate stabilised at 6%, indicates that most respondents now view this level of the rate as neutral.

![Figure 55. Analyst expectations for Bank of Russia key rate, % per annum](source)

![Figure 56. Analyst inflation expectations, % YoY](source)
3. In focus. Inflation-linked bonds as a source of information about inflation expectations

- Prices of inflation-indexed bonds contain indirect information about inflation expectations of financial market participants. There are currently two outstanding issues of such bonds in Russia.

- Implied inflation, defined as a difference between yields of fixed-coupon OFZs and those of inflation-linked OFZs with the same maturity has in recent months fallen significantly below 4%, although it was above 5% just a year ago. It is, however too early to conclude that market participants’ inflation expectations have really declined within such a relatively short period of time to the levels below the Bank of Russia’s inflation target. A more accurate assessment of inflation expectations requires the implied inflation indicator to be adjusted for a variety of factors, including inflation risk premium, liquidity premium, mismatched cashflows and so on.

- Significant differences in the structure of fixed-coupon and inflation-linked OFZ investors and differences in their behavior patterns may have a material effect on the level of implied inflation. For example, implied inflation may be overly reduced in the periods when markets expects that interest rate will decrease. During these periods market participants massively build up their positions in fixed-coupon OFZs. By contrast, implied inflation is elevated in periods when major fixed income investors shorten their positions.

Inflation-indexed OFZs\(^{20}\) are a fairly new instrument in the Russian market. Russia’s Finance Ministry started to issue “linkers”\(^ {21}\) in 2015. There are currently two outstanding issues of inflation-indexed OFZs (OFZ-IN) (maturities of 3.5 and 8 years). Strong investor demand prompted the Finance Ministry to issue extra RUB 100 billion of 8-year “linkers”. However a current outstanding notional\(^ {22}\) of inflation-indexed OFZs is over 400 billion roubles,\(^ {23}\) accounting for less than 5% of overall domestic government debt.

Inflation-indexed bonds are attractive to investors because they secure real returns irrespective of potential inflation fluctuations. Central banks find such instruments valuable as a source of information about inflation expectations, which are priced in bonds.

---

\(^{20}\) For reference: inflation-linked OFZs allow investors to obtain a real rate of return regardless of realized inflation over the period. Unlike classic fixed-return bonds (where payment flows are known in advance but a real return is unknown at the time of a bond purchase) payment flows in inflation-indexed bonds are comprised of two components: a fixed coupon rate and a par value indexed by inflation. A bond’s par value is no less than 1,000 roubles and is indexed daily to the consumer price index 3 months before the calculation date. The coupon is paid based on the indexed par value.T

\(^{21}\) A colloquial name of inflation-linked bonds.

\(^{22}\) As of 4 December 2019.

\(^{23}\) In terms of outstanding principal.
**Implied inflation**

Implied inflation is an approximate measure of inflation expectations derived from OFZ price movements. It is defined as an average level of future inflation which equalizes the sum of discounted payment flows in an inflation-indexed bond with the price of a regular (fixed-coupon) bond with the maturity date closest to the inflation linked bond. A simplified formula of this is given by the following formula:

\[
\text{Implied inflation} \approx \text{estimate of expected inflation} = \text{Yield to maturity}_{\text{FROFZ}} - \text{Yield to maturity}_{\text{IIOFZ}}
\]

Implied inflation through February 2028 which is priced in inflation-indexed OFZs has declined (for the last three months) to 3.40% at the end of November, according to an R&F Department estimate.\(^{24}\) Average future implied inflation (from August 2023 to February 2028) equalled 3.30%. Meanwhile, implied inflation indicators stood above 5%–5.5% just a year ago. Direct interpretation of these results is that OFZ market participants expect average inflation to stand below the Bank of Russia’s inflation target of 4% in the next 8 years. Does this mean that inflation expectations of financial market participants have really changed so radically? Our analysis suggests that the implied inflation indicator only gives an approximate idea of inflation expectations does not account for a number of factors which may significantly distort this estimate.

---

1) **Inflation expectations and inflation risk**

*Nominal* yield can be split into four main components (Figure 59), of which two determine a real return:

---

\(^{24}\) Estimates are based on an inflation-linked and a fixed-coupon OFZs yield comparison adjusted for discounted expected payment flows on a zero-coupon curve.
real short-term rate;
- term premium of a real interest rate;
- expected inflation;
- inflation risk (a risk that real inflation will exceed level which was expected at the time of a bond purchase).

The yield of inflation-linked bonds does not include inflation-risk premium because a return paid by these bonds rises in line with realized inflation. While buying an inflation-indexed bond, an investor effectively pays for a greater certainty of its future real return. In other words, this investor buys an option on protection from an unexpected rise in inflation.

The value of this protection depends on a degree of uncertainty about future inflation and risk appetite. In mathematical terms, inflation expectations are a mean of subjective probability distribution for future inflation. Uncertainty about future inflation is defined as variation around this average value and it is positively correlated with the expected inflation level.

This is associated with the following effect: as a rule implied inflation usually tends to rise or decline more extensively than inflation expectations do.

Another specific feature of inflation expectations should be noted. They change depending on the maturity and, accordingly, have a different effect on the nominal yields of fixed-return OFZs. Inflation expectations, as a rule, assume different inflation levels over different time intervals in future. That said, short-term inflation expectations are, as a rule, more volatile than long-term expectations. This means that change in short-term inflation expectations may bring about temporary changes in the level of implied inflation, even if long-term inflation expectations are anchored. If expectations are not anchored, the impact of this factor may strengthen.

2) Liquidity and investor preferences

Implied inflation changes are affected by the liquidity of “linkers” and behaviour patterns of key investor groups. The liquidity of inflation-indexed OFZs is much lower than that of nominal-yield bonds, which is above all due to differences in their investor bases. Inflation-indexed bonds are, as a rule, bought by institutional investors, not prone to active trading, i.e. these bonds are normally held to maturity.
That said, the “fastest” part of investors, those involved in active, large volume trading, are concentrated in classic fixed-coupon OFZs, with nonresidents most often accounting for a large part of this investor group. In the periods when interest rate cuts are expected, Expectations for large scale demand form non-residents provokes the prepositioning on the part of Russian participants (primarily banks).

For example, expectations of key rate cuts by the Bank of Russia in September–October, caused nominal yields of fixed-coupon OFZs to decline at a faster pace than real yields of inflation-indexed OFZs. Therefore, implied inflation, derived from inflation-indexed OFZ prices, may be overly reduced in the periods of massive buying by nonresidents and local participants.

Source: Bank of Russia, supervision reporting forms, Bloomberg Finance L.P.
3) Other factors

Conventional and inflation-linked bonds’ sensitivity to changes in the rates of a real return differ. Coupon payments in “linkers” increase as inflation rises, whereas nominal OFZs pay fixed coupons. This feature of inflation-indexed bonds is attractive to investors because payments in inflation-indexed bonds will increase to a greater extent if realized inflation comes in higher than inflation implied at the time of a bond purchase. In estimating inflation expectations one should bear in mind that this effect can also bring down the observed implied inflation level.

To obtain accurate estimation of implied inflation, one should also take into account a time lag (3 months in the case of inflation-indexed OFZs) from the time of change in inflation to the indexation of the notional of this bond. The closer the maturity date of the “linker”, the stronger the time lag effect. The impact of this factor is, however, currently marginal, according to our estimates.

The implied inflation estimate derived from “linker” prices does not necessarily reflect investors’ opinions about future inflation, which may also be due to other “technical” factors in the absence of an effective market. By buying “linkers” an investor may simply aim to diversify or hedge its asset portfolio, for example in response to rising inflation risks, even if this investor does not believe in the realization of these risks.

The inflation-indexed securities market provides one source of information about inflation expectations. The availability of a yield curve of inflation-indexed securities and inflation-linked derivatives helps central banks to analyze a term structure of inflation expectations. The factors listed above are, however, not a distinguishing feature of the Russian market but are relevant to inflation-indexed securities across the world.

In analyzing Russian inflation expectations, one should bear in mind that building up positions in classic fixed-coupon OFZs by nonresidents or active Russian investors in the periods when market sentiment changes causes their yields to plunge or soar, thereby changing implied inflation significantly. Therefore, estimation of inflation expectations based on implied yields of inflation-indexed OFZs should be adjusted for this and other factors.

It is technically difficult to carry out this adjustment at the current stage of the inflation-indexed OFZ market. For example, there are now just two outstanding issues of these bonds, which does not allow constructing their yield curve based on their maturities. The simplest yield-curve construction method requires at least four points, i.e., four inflation-indexed OFZ issues.

From a monetary policy perspective, the level of a real yield on inflation-indexed OFZs is in itself of interest. Its average value in both bonds has stood above 3% in the last couple of years. Even if a likely significant liquidity premium, which pushes up bond yields, is taken into account, one can claim with caution that real yields of rouble-denominated bonds stand within (or close to) the Bank of Russia’s estimate range of the neutral key rate. This gives an insight into what level of real would encourage domestic players’ to invest in rouble-denominated assets. This effectively indicates the difference in assessment of a “fair” OFZ risk premium by various investor groups, both domestic and foreign.
Research and Forecasting Department

Alexander Morozov

Director

Vladislav Abramov
Irina Bogacheva
Dmitry Chernyadyev
Natalia Karlova
Tatyana Kuzmina
Ekaterina Petreneva
Maria Pomelnikova
Svetlana Popova
Alexey Porshakov
Yelena Puzanova
Arina Sapova
Anna Tsvetkova
Yulia Ushakova
Sergey Vlasov
Ksenia Yakovleva
Alexandra Zhivaikina