**MACROECONOMICS** 

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Adjustment of forecast	
indicators3	)
What's next for global	
inflation?5	)
Appendix. Key indicators of	
alternative macroeconomic	
forecast scenarios for	
Russia10	

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# The moment of truth for global inflation

Russian economy: an updated forecast until 2025

- Recovery growth of the Russian economy will mostly end in 2021, as well as fiscal and monetary stimulus. Economic activity will grow by 3.4-3.7% this year, followed by a slowdown to 2% over a five-year horizon. In general, the world economy has got through the pandemic and is starting to face its consequences, which are manifested with a certain lag, such as higher sovereign debt, a temporary mismatch between production capacity utilization and demand, and the need to curtail stimulus programs to avoid an acceleration of inflation.
- The growth of real disposable income in Russia over the forecast horizon will be similar to economic growth, which was characteristic of the Russian economy prior to 2014. The significant gap between the two indicators in 2015–2019 was primarily due to the protracted period in which the economy adjusted to the new external economic climate.
- The key rate hiking period will end in 2021. The Bank of Russia will strive to normalize inflation expectations in response to fast recovery of economic activity and inflation overshooting its target. This will require the regulator to keep the key interest rate within or above the upper part of the neutral range.
- Global inflation is at its lowest historical levels in decades, however, some of the factors behind the slowdown in price growth may soon become pro-inflationary. In particular, the share of the global labor force is expected to decline along with moderate growth of trade barriers. It is possible that deeper inclusion of rapidly developing countries and regions in global value chains, as well as the even wider use of inflation targeting, could help to counter these processes. In the event of a noticeable increase in "background" inflation, the world will face a climate of higher and temporarily more volatile interest rates. In the pessimistic scenario, this may become a source of financial instability and stress episodes in a number of economies, including major ones.



Table 1. Key indicators in the base case scenario of the macroeconomic forecast from 2021 to 2025 (see the *Appendix* for alternative scenarios)

	Unit of		Actual		Estimate	e Forecast		ecast	t	
Indicator	measurement	2018	2019	2020	2021	2022	2023	2024	2025	
Key external environment indicators										
Urals crude oil price (annual		70.1	63.7	41.6	57.0	57.7	60.5	61.0	61.5	
average)	USD per barrel									
Global GDP <sup>1</sup>	%, y-o-y	3.1	2.5	-3.3	4.7	3.3	2.5	2.4	2.3	
US GDP	%, y-o-y	3.0	2.2	-3.5	4.9	2.8	2.3	1.8	1.7	
China GDP	%, y-o-y	6.6	6.1	2.3	6.7	5.0	4.7	4.5	4.3	
EU GDP	%, y-o-y	2.3	1.7	-6.1	5.0	3.9	2.0	1.5	1.5	
Production indicators										
GDP (current prices)	RUB bln	103,862	109,242	106,968	120,894	128,798	136,777	144,188	151,961	
Real GDP growth rate	%, y-o-y	2.8	2.0	-3.0	3.5	3.0	2.2	2.0	2.0	
Fixed investments	RUB bln	17,782	19,329	20,118	21,732	23,564	25,024	26,379	27,803	
Real growth rate of fixed investments	%, y-o-y	5.4	2.1	-1.4	2.0	3.6	1.6	1.9	1.8	
Industrial output index	%, y-o-y	3.5	3.4	-2.6	3.0	2.9	2.0	1.5	1.9	
Retail turnover	RUB bln	31,579	33,624	33,874	37,427	39,917	42,390	44,686	47,097	
Balance of payments indicator	S									
Exports	USD bln	443	420	332	384	408	425	430	434	
Imports	USD bln	249	255	240	298	326	345	358	369	
Annual average USD exchange rate	RUB/USD	62.7	64.7	72.1	73.2	71.1	71.3	71.9	72.5	
Annual average EUR exchange rate	RUB/EUR	74.0	72.4	82.4	87.5	81.1	79.1	79.8	79.8	
Income and labor market										
Average wage	RUB/month	43,431	47,420	51,017	57,699	63,546	69,521	75,985	83,051	
Real disposable income	%, y-o-y	0.4	1.0	-3.0	3.7	2.7	2.3	2.2	2.1	
Population	mln	146.8	146.8	146.5	146.3	146.1	146.0	145.8	145.7	
EAP <sup>2</sup>	mln	76.2	75.4	74.9	74.6	74.8	74.9	75.3	75.8	
Unemployment	% of EAP	4.8	4.6	5.8	5.3	4.9	4.8	4.6	4.6	
Financial market prices and inc	dicators									
Inflation (CPI <sup>3</sup> )	%, Dec/Dec	4.4	3.0	4.9	5.1	3.7	3.7	3.8	3.9	
Key interest rate (as of end of year)	%	7.75	6.25	4.25	5.75	5.25	5.0	5.0	5.5	
5-year zero-coupon OFZ rate	%	7.6	7.3	5.6	6.9	6.7	6.3	6.3	6.5	
Budget										
Federal budget balance	% of GDP	2.6	1.8	-3.8	-1.1	-0.9	-0.5	0.1	-0.2	

Source: ACRA

2

<sup>&</sup>lt;sup>1</sup> Real growth rate according to the World Bank's methodology.

<sup>&</sup>lt;sup>2</sup> Economically active population.

<sup>&</sup>lt;sup>3</sup> Consumer price index.

## **Adjustment of forecast indicators**

The prerequisites for calculating the indicators of the base case scenario of the macroeconomic forecast and their dynamics were adjusted taking into account new information. The main changes affected two elements:

1. **Short- and long-term interest rates were adjusted.** The key rate returned to the neutral range faster than the Agency expected six months ago. It is possible that all significant upward movements of the rate will take place in 2021 and not 2022. The 0.5 p.p. rate hike this April was largely the result of a rather significant recovery in internal demand. Taking into account the time lags in carrying out monetary policy measures, the key rate should get close to the neutral range a few months or half a year before the economy reaches full capacity utilization, which is being observed now. Inflation exceeding the target level was an additional factor behind the rate being increased faster than gradual 0.25 p.p hikes.

The Bank of Russia has published its own key rate interval forecast since April 2021. The average value for 2022 equals 5.8%, which is higher than ACRA's forecast and looks like the regulator expects a fairly long balancing of supply and demand as the economy recovers from the pandemic, and, as a result, continuing price shocks in different markets. However, the forecast contains a number of prerequisites — the accumulated increase of the key rate and the possibilities to subsequently lower (normalize) it will largely depend on the situation in local agriculture markets this summer and autumn, the dynamics of prices for exchange-traded commodities in world markets and other factors of global inflation (more on this in the next section), as well as on decisions regarding the timing and amount of investment of the National Wealth Fund (NWF). Taking all this into account, the degree of uncertainty of forecasts is high.

2. The consequences of new financial sanctions have been taken into account, including those that limit the base of investors who can invest in Russian public debt, as well as the risks of additional limitations being deployed. Previously, these factors were taken into account in the pessimistic scenario of ACRA's macroeconomic forecast. Now they are reflected in relatively small growth of the average rates on the government's ruble borrowings and in the expectation of more significant growth of rates should US sanctions cover the entire secondary market for Russian public debt.

The Agency has also revised its assessment for the pessimistic scenario of the macroeconomic forecast. Given the current stage of the business cycle, it would be too pessimistic to expect an economic crisis next year or even in the next two years, even in the pessimistic scenario. Due to this, the revised pessimistic scenario envisages an acceleration of accumulated imbalances which could potentially lead to a new crisis close to the end of the forecast horizon or after it, instead of sharp growth of financial and economic stress in Russia and the world.

We are talking about the possible formation of an environment of higher and more volatile inflation, as well as higher global interest rates amid a sluggish recovery of economic growth. In this situation, monetary and fiscal policies could potentially become take opposing stances with regard to economic stimulus in many countries.

ACRA believes that the reintroduction of restrictions on economic activity due to the pandemic and quarantine measures comparable in scale and timing to the first wave is unrealistic for Russia, even in the pessimistic scenario. At the current vaccination rates, the Agency predicts that developed countries will be able to abandon periodic lockdowns as early as 2021, while developing countries, which have worse access to vaccines, will introduce less and less stringent restrictions on economic activities, even in the event of new waves of the pandemic.

See ACRA's research
"Structural and temporary
factors of economic growth in
Russia" from November 19,
2020 for more information on
adjustment to economic
shocks.

ACRA's base case scenario foresees real disposable income of the Russian population growing at approximately the same rate as real GDP, which was characteristic of the Russian economy prior to 2014. Income grew at a much slower rate in 2015–2019 largely due to the protracted period in which the economy adjusted to the new external economic conditions. As this process comes to an end, the Agency expects the gap between the two indicators to narrow considerably, and that real income may even temporarily outstrip economic growth.

Table 2. Qualitative preconditions of the macroeconomic scenarios for Russia

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	Impact on Russia's economy	Optimistic	Base case	Pessimistic				
1. Introduction of quarantine measures in 2021–2022 to the same extent as the 2020 measures	Very strong	-	-	-				
2. Fundamentally elevated global inflation and rising world interest rates	Medium	-	-	+				
3. Decline in the volume of deposits held by Russian banks due to lower trust in the banking system in 2021–2022	Strong	-	-	-				
4. Removal of trade sanctions against Iran and/or Venezuela	Medium	-	+/-	+				
5. Endogenous contraction of financial markets in the United States following the announcement of a reduction in monetary or fiscal stimulus	Medium	-	+/-	+				
6. Fiscal or financial crises in individual EU countries in 2021–2022	Weak	-	-	-				
7. Negative effect from the introduction of new economic or financial sanctions	Medium	-	+/-	+				

Source: ACRA

ACRA's optimistic scenario continues to involve a faster recovery of economic activity and foreign trade in Russia and the world, as well as positive development of the situation in terms of the majority of qualitative preconditions (from the spread of the coronavirus to the imposition of new sanctions against Russia).

#### What's next for global inflation?

The growth in prices for many commodities, which accelerated in late 2020 and early 2021 at the same time as the implementation of major monetary stimulus programs and growing inflationary expectations, means that the question of the sustainability of current situation of globally low inflation and historically low interest rates is once again relevant. Can the world continue along the "Japanese path" toward everything negative, or the contrary, are the risks of another period of high inflation growing?

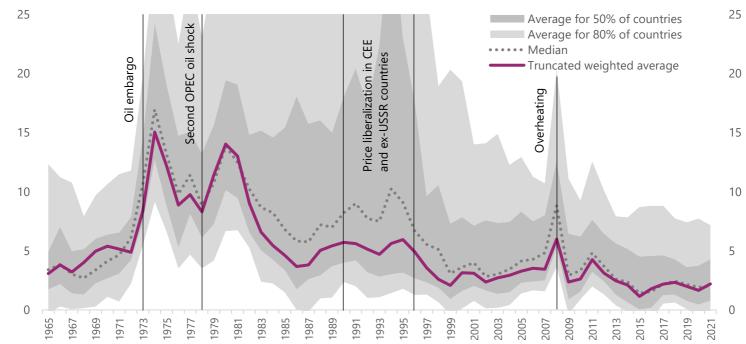
Local inflation factors are relevant for each individual country, however, it has been empirically proven that the role of global factors in explaining inflation in most

Since the late 1990s, Japan has experienced two prolonged episodes of sustained deflation, which have posed a major economic policy challenge. This was the first time in the world when a central bank resorted to a massive quantitative easing program.

countries has grown substantially over the past decades<sup>4</sup>. In this regard, when studying the situation with inflation in a particular country, attention should be paid to the general picture.

The acceleration of consumer price growth currently being observed is not very significant by historical standards (*Fig. 1*). Median global inflation (April 2021 vs. April 2020) amounts to approximately 2%, which is very close to last year's figure (1.9%). Inflation has reached 4.2% in the dollar zone and, taking into account near-zero growth in April last year, is not very far away from the 2% inflationary trend. In Russia, inflation was 5.6–5.8% in the period from February to April, which is higher than the Bank of Russia's target, but still close to the minimum level for the past 25 years. Similar or lower price growth rates have been consistently recorded in Russia since the start of 2017.

Figure 1. Over the past 50 years global inflation has practically monotonically decreased, while its dynamics have become more coordinated in different countries



<sup>\*</sup> The graph shows the distribution of average annual inflation by country in each individual year. 2021: April 2021 vs. April 2020 (March vs. March in cases where April data was not available).

Sources: World Bank, IMF, national statistical agencies, ACRA

The average "background" inflation in the world has declined relatively monotonically over the past 50 years. Researchers identify at least five factors that could support this process. Quantifying the contribution of each of these factors is complicated by the length of the analyzed time period and largely depends on the analytical model. Due to this we will try to draw a qualitative conclusion on whether these factors will continue to operate on the horizon of the next five to ten years (*Table 3*).

<sup>&</sup>lt;sup>4</sup> K. Forbes, Inflation Dynamics: Dead, Dormant or Determined Abroad? Brookings Papers on Economic Activity, 2019; Jordà, Òscar, Fernanda Nechio. 2018. Inflation Globally, Federal Reserve Bank of San Francisco Working Paper 2018-15 and others.



Table 3. Factors that possibly slowed down global inflation over the last 50 years

Disinflationary factor	Explanation	Will the factor continue to push inflation down in the next 5–10 years?
Technological progress	The development of science and technology reduces production costs and real prices for most goods and services (of comparable quality). The proliferation of personal and industrial computers, the internet, and smartphones has accelerated and reduced costs in almost all production and manufacturing sectors.	<b>Yes.</b> Despite fears of progress slowing down, the period between theoretical justification and the introduction of new technologies continues to shrink, and global investment in R&D and basic science is at a historical high.
Demographic trend for a higher share of the working population	Empirical observation of a sample of 22 developed countries since 1870. "Background" inflation decreases with an increase in the share of the working population in the country: see, for example, Juselius, Takats, "The enduring link between demography and inflation", BIS Working Papers № 722, May 2018.	<b>No.</b> This factor is likely to become proinflationary due to the increase in the proportion of older people in most developed countries and China. Population aging is outstripping pension reforms and growth in the productive age.
Trade globalization	Allows for using the comparative advantages of geographical location, manufacturers' proximity to raw materials or sales markets; expressed in, among others, the reduction of tariff barriers and transportation costs. Reduces production costs in a broad sense, which is reflected in the end prices of products.	No, because of the long-term effects of trade wars, protectionism, environmental and digital regulation.  Yes, because there is potential for deeper involvement of India, Africa and some countries of Southeast Asia in world trade.
Growing number of inflation-targeting economies	Inflation-targeting central banks do not always achieve their goals, but it is found empirically that in countries with these regimes, inflation is lower on average. The growth in the number of such countries should slow down global inflation.	<b>Yes.</b> At the moment, inflation targeting is perceived as the most promising method of monetary policy; about a dozen countries are in transition to inflation targeting or have declared this intention.
Stricter prudential regulation	Inflation is closely tied to the dynamics of monetary aggregates, which is determined by the dynamics of lending. In turn, the dynamics of lending depends more on the policy (including interest rate) of central banks when banking activities are regulated to a larger extent.	<b>Yes.</b> As the experience of the 2008 and 2020 crises shows, prudential regulation should be more multilateral.

Source: ACRA

In most countries, the retirement age must rise substantially faster than one year every seven years. For half of the world's population, this process is irrelevant due to the stage of demographic transition where the number of young people significantly exceeds the number of elderly people.

According to ACRA's estimates, three of the five factors listed in *Table 3* will remain to be disinflationary on any reasonable forecast horizon: technological progress, spread of inflation targeting, and stricter prudential regulation. At the same time, it is possible that the two other factors have either already become pro-inflationary, or will become pro-inflationary in the near future.

According to the UN's global demographic forecast, in the next 30 years the number of people aged 15 to 64 will decrease by more than 3 p.p. (*Fig. 2*). To keep the **share of the working population** at a constant level, the global average age of a retiring person would have to increase by one year every seven years. Given the rate of increase in productive life expectancy and the political sensitivity of retirement issues, this rate of increase of the retirement age seems unrealistic. Therefore, the share of the working population is likely to start falling after a long period of growth. If we extrapolate the patterns observed in developed countries during the 20<sup>th</sup> century onto the whole world, it is possible that the reduction in the share of working population will heat up "background" inflation. However, this forecast largely depends on whether the most disinflationary age is 15–64 years (and not, say, 25–69 years).

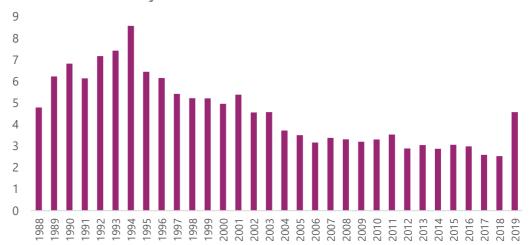
66 World, share of population 54 aged 15-64, lha 64 52 50 62 World, share of population 48 aged 25-69, rha 60 46 44 58 42 56 40 2000 2005 2010 2015 2020 2025 2030 1995

Figure 2. The world share of population aged 15-64 has started to decline

Sources: UN, ACRA

**World trade globalization** is going through hard times: 2019 was the first year in the last 25 years when the weighted average import duty rate increased by more than 1 p.p. (*Fig. 3*). Although it is unlikely that trade wars like the recent one between the US and China will become frequent, there are certain signs of a future increase in trade barriers in a more civilized form, including the expected introduction of digital taxes and cross-border environmental regulation. All these should have inflationary effects, most likely in the form of single bursts without any long-term consequences.

Figure 3. In 2019, the weighted average rate of import duty grew noticeably for the first time in the last 25 years



Sources: World Bank, ACRA

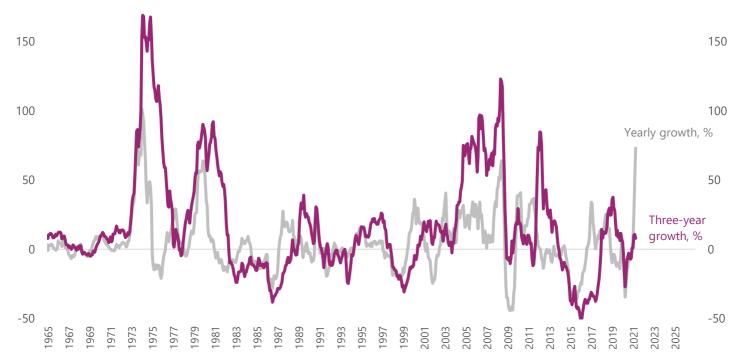
Despite the apparent pause in the globalization of world trade, there is reason to believe that more and more countries will deepen their connection to global value chains. In particular, fast-developing Africa, India and some countries of Southeast Asia may assume the role of China as a "factory for the world". If this happens, then another round of decline in the real value of industrial and consumer goods is quite possible. Consequently, the contribution of globalization to world inflation will depend on which of the processes develop faster: the growth of trade barriers or the inclusion of new countries in global value chains.

Let us return to the factors that are now considered triggers or anticipatory signs of accelerating global inflation: rising commodity prices and large-scale monetary stimulus in 2020. In ACRA's opinion, the potential for the long-term influence of these factors is weaker than that of the abovementioned factors.

Prices for certain commodities may continue to be high for a quite long time. For example, the growth in prices for non-ferrous metals might be caused to some extent by the fundamental growth of investments in renewable sources of energy, which was incompatible with the expansion in their production assets over the last several years.

Although world dollar **prices for basic commodities** have increased on average by more than 70% compared to 2020 and this actually affects inflation expectations, it is worth noting that this growth started from a low base. However, if we take the period of the last three years, growth is not so high — less than 10% (*Fig. 4*). According to ACRA's estimates, today, changes in commodity prices mainly follow fluctuations in global demand. A relatively rapid recovery in demand in early 2021 (at least in a number of large countries) was accompanied by a lagging increase in production asset utilization rates, which, among other things, led to a temporary increase in prices. If so, then by the end of 2021, average commodity prices should decline slightly. There are also political reasons for this, including the possible lifting of trade sanctions against Iran (which will push hydrocarbon prices down) and the possible easing of restrictions introduced by OPEC+.

Figure 4. The commodity price index is growing strongly in 2021, but this is largely explained by the low base effect



Sources: World Bank, ACRA

For complexities and specifics of forecasting for Russia, see <u>Specifics of sources for Russian macroeconomic forecasts</u> published on May 13, 2021.

The unprecedentedly large monetary and fiscal stimuli implemented during the pandemic raise concerns, not because they contributed to the growth of cash held by households, but because of the time lag between the decision to wind down these programs and their real impact on inflation. Given the complexity of forecasting, in the Agency's opinion, there are risks that in some countries these stimuli will continue to fuel the demand and economic activity when this is no longer necessary, which may result in increased inflation. However, if regulators are committed to countercyclical policies, this should not be a long-term issue.

It is important to mention an objective obstacle that could theoretically prevent a country's central bank from behaving counter-cyclically and effectively containing inflation. It is fiscal dominance, which is usually understood as a situation when the regulator takes into account in its policy the "wellbeing" of the state budget to such an extent that it starts to interfere with its main goals.

Fertile ground for fiscal dominance arises, oddly enough, at times when fiscal policy has less room for maneuver: in particular, if the debt burden becomes burdensome or it is largely related to the central bank's decisions, given that a large share of debt is attracted at a floating rate. In these conditions, the regulator has to make a choice between two evils: not to achieve its main goal (for many countries this is inflation targeting) or to harm the ministry of finance which is in a challenging situation. The first option (sometimes this choice is made for the regulator) can undermine confidence in the central bank's independence, making it extremely difficult to return to price stability in the future. In this regard, the central banks of most countries are maximally interested in ensuring that fiscal policy is responsible.

The noticeable increase in the debt burden of governments in Europe and the world as a result of the pandemic raises the question of whether the time has come when a return to a neutral monetary policy is so sensitive for financially weak governments that it should be postponed. In this sense, the situation in the world has, on average, shifted towards fiscal dominance, but it has hardly reached the limit. In the overwhelming majority of large countries whose governments' creditworthiness is assessed by ACRA, it is still far from fiscal dominance, which means that central banks have opportunities to achieve their inflation targets.

Based on the qualitative analysis described above, the Agency has concluded that in the base case scenario of macroeconomic forecast, global inflation should slow down to some extent after a moderate (by historical standards) spike in 2021 and remain approximately at the same level throughout the forecast horizon. At the same time, the trend for a long-term increase in global inflation under the influence of demographic and other factors should become part of the pessimistic forecast scenario. Clarification of the aggregate impact of diverse factors of global inflation and analysis of their comparative contribution to the overall dynamics of the indicator shall be the subject of future research.



# Appendix. Key indicators of alternative macroeconomic forecast scenarios for Russia

### Pessimistic scenario of the macroeconomic forecast

	ludiosto.	Unit of		Actual			Estimate For		
	Indicator	measurement	2018	2019	2020	2021	2022	2023	
Key external environment	Urals crude oil price (annual average)	USD/bbl	70.1	63.7	41.6	53.1	41.0	41.0	
indicators	Global GDP	%, y-o-y	3.1	2.5	-3.3	4.4	2.7	2.0	
	US GDP	%, y-o-y	3.0	2.2	-3.5	3.8	2.0	1.3	
	China GDP	%, y-o-y	6.6	6.1	2.3	6.5	4.2	4.0	
	EU GDP	%, y-o-y	2.3	1.7	-6.1	4.4	2.5	1.2	
Production	GDP (current prices)	RUB bln	103,862	109,242	106,968	119,497	124,949	130,656	
indicators	Real GDP growth rate	%, y-o-y	2.8	2.0	-3.0	2.9	2.0	1.2	
Balance of	Exports	USD bln	443	420	332	367	318	312	
payments	Imports	USD bln	249	255	240	293	288	309	
indicators	Annual average USD exchange rate	RUB/USD	62.7	64.7	72.1	73.6	78.0	76.0	
	Annual average EUR exchange rate	RUB/EUR	74.0	72.4	82.4	87.5	88.9	85.9	
Income and	Real disposable income	%, y-o-y	0.4	1.0	-3.0	3.2	1.7	1.3	
labor market	Unemployment	% of EAP	4.8	4.6	5.8	5.3	5.2	5.0	
Financial	Inflation (CPI)	% Dec/Dec	4.4	3.0	4.9	5.5	6.2	4.8	
market prices and indicators	Key interest rate (as of end of year)	%	7.75	6.25	4.25	6.0	6,75	6.5	
	5-year zero-coupon OFZ rate	%	7.6	7.3	5.6	7.8	8,1	6.9	
Budget	Federal budget balance	% of GDP	2.6	1.8	-3.8	-2.0	-1,8	-1.8	

#### **Optimistic scenario of the macroeconomic forecast**

		Unit of	Actual			Estimate	For	Forecast	
	Indicator	measurement	2018	2019	2020	2021	2022	2023	
Key external environment	Urals crude oil price (annual average)	USD/bbl	70.1	63.7	41.6	67.0	65.0	63.1	
indicators	Global GDP	%, y-o-y	3.1	2.5	-3.3	5.3	3.6	2.8	
	US GDP	%, y-o-y	3.0	2.2	-3.5	5.5	3.0	2.6	
	China GDP	%, y-o-y	6.6	6.1	2.3	7.0	5.8	4.7	
	EU GDP	%, у-о-у	2.3	1.7	-6.1	5.1	4.2	2.5	
Production	GDP (current prices)	RUB bln	103,862	109,242	106,968	127,733	133,610	140,674	
indicators	Real GDP growth rate	%, y-o-y	2.8	2.0	-3.0	3.8	3.1	2.6	
Balance of	Exports	USD bln	443	420	332	429	440	441	
payments	Imports	USD bln	249	255	240	314	345	361	
indicators	Annual average USD exchange rate	RUB/USD	62.7	64.7	72.1	72.1	69.9	70.2	
	Annual average EUR exchange rate	RUB/EUR	74.0	72.4	82.4	86.5	79.7	79.3	
Income and	Real disposable income	%, y-o-y	0.4	1.0	-3.0	4.1	2.8	2.7	
labor market	Unemployment	% of EAP	4.8	4.6	5.8	5.3	4.8	4.8	
Financial	Inflation (CPI)	% Dec/Dec	4.4	3.0	4.9	5.0	3.7	4.0	
market prices and indicators	Key interest rate (as of end of year)	%	7.75	6.25	4.25	5.5	5.5	5.5	
	5-year zero-coupon OFZ rate	%	7.6	7.3	5.6	6.6	6.5	6.5	
Budget	Federal budget balance	% of GDP	2.6	1.8	-3.8	0.2	0.6	0.3	



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