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The review “Russian Economy. Trends and Outlooks” has been published by the Gaidar Institute since 1991. This is the 43th issue. This publication provides a detailed analysis of the most significant trends in the Russian economy, global trends in the social and economic development. The work contains 6 big sections that highlight different aspects of Russia’s economic development, which allow to monitor all angles of ongoing events over a prolonged period: global economic and political challenges and national responses, economic growth and economic crisis; the monetary and budget spheres; financial markets and institutions; the real sector; social sphere; institutional changes. The work is based on an extensive array of statistical data that forms the basis of original computation and numerous charts confirming the conclusions.

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Alexandra Bozhechkova, Pavel Trunin

2.1. Russia's monetary policy in 2021 [1]

2.1.1. The main trends of the monetary policy

In 2021, the rapid acceleration of the rate of inflation and overshooting by the actual inflation of the RF Central Bank's target were the key challenges to the monetary policy following a fast recovery of demand amid limited capacities to increase supply of numerous goods and the easing of the monetary and fiscal policies. As a result, the RF Central Bank has switched over to the tightening of the monetary policy and raised the key interest rate at all its meetings of the Board of Directors since March 2021. In 2021, the key interest rate picked up by 4.25 p.p. from 4.25% annually to 8.5% annually, a record-high since 2017. It is noteworthy that such a lengthy phase of tightening of the monetary policy was observed for the first time since 2014.

The tightening of the monetary policy began on March 19, 2021 when the Central Bank of Russia raised the key rate by 0.25 p.p. to 4.5% annually. It is noteworthy that before that the key rate was at the record-low of 4.25% annually, which was attained in summer 2020 when easy monetary policy was pursued during the coronavirus pandemic. Within the framework of the meeting of the Board of Directors of the RF Central Bank on April 23 and June 11, 2021, the monetary policy interest rate was raised each time by 0.5 p.p. and amounted to 5.5% annually. If on the basis of the results of the April meeting the regulator declared that it might be feasible to increase the key rate further, the press-release of the June meeting, which was held after the rate of inflation sped up in May, explicitly referred to the need to raise the key rate at the next meetings.

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A record-high rise in the key rate since the end of 2014 took place on July 23, 2021 when it increased by 1 p.p. (up to 6.5% annually). Such a radical measure was related with high risks of a protracted upward deviation of the inflation rate from the target. Amid substantial overshooting by the actual inflation rate of the targets and with inflation expectations taken into account, the RF Central Bank kept tightening the monetary policy by raising at its meetings in September and October the key rate by 0.25 p.p. and 0.75 p.p., respectively, to 7.5% annually. In December 2021, for the second time within a year the RF Central Bank raised considerably the key rate (1 p.p. to 8.5% annually) following the protracted deviation of the inflation rate from the target and projected trajectory, as well growing inflation expectations. It is noteworthy that the inflation forecast published by the RF Central Bank was repeatedly revised during the year. In December 2020, the inflation forecast for 2021 was equal to 3.5%–4%, but in November 2021, to 7.4%–7.9%.

A speed-up in the inflation rate was observed in most countries on the back of a fast recovery of composite demand owing to the mitigation of lockdown measures and pursuit by the advanced economies of ultra-loose fiscal and monetary policies begun as far back as the global financial crisis amid prevailing aggregate supply problems.

With growing inflation risks in 2021, most central banks of developing countries shifted to the tightening of their monetary policies, too, while developed countries made their rhetoric tougher, but left the interest rates unchanged. As the monetary policy was getting tougher in 2021, Russia's key interest rate in real terms (measured on the basis of actual inflation) became positive (0.1% annually in December 2021). In December 2021, a positive key interest rate was also observed in Kazakhstan (1.35% annually) and Indonesia (1.63% annually). Overall, based on results for December 2021 real key interest rates of a majority of developed and developing countries which targeted inflation remained negative (-5.15% annually in the UK; -4.55% annually in Canada; -0.81% annually in Brazil; -3.2% in Chile) (*Table 1* and *Fig. 1*).

Table 1

The rate of inflation and key rate in a number of developed and developing countries

	Actual inflation, December 2021 on December 2020,%	Key rate as of end of December 2021, % annually
Developing countries		
Columbia	5.62	3.0
Indonesia	1.87	3.50
Peru	6.43	2.50
Poland	8.6	1.75
Chile	7.2	4.00
South Africa	5.9	3.75
Mexico	7.36	5.5
Brazil	10.06	9.25

	Actual inflation, December 2021 on December 2020,%	Key rate as of end of December 2021, % annually
India	5.66	4.00
Russia	**8.39**	**8.50**
Kazakhstan	8.4	9.75
Turkey	36.08	14.00
Developed countries		
EU	5.0	0.00
UK	5.4	0.25
Australia	3.5	0.10
Canada	4.8	0.25
Norway	5.3	0.5
New Zealand	5.9	0.75
US	7.0	0.25
Czech Republic	6.6	3.75
Iceland	5.1	2.00
Switzerland	1.5	-0.75
Japan	0.8	-0.1

Source: The websites of central banks.

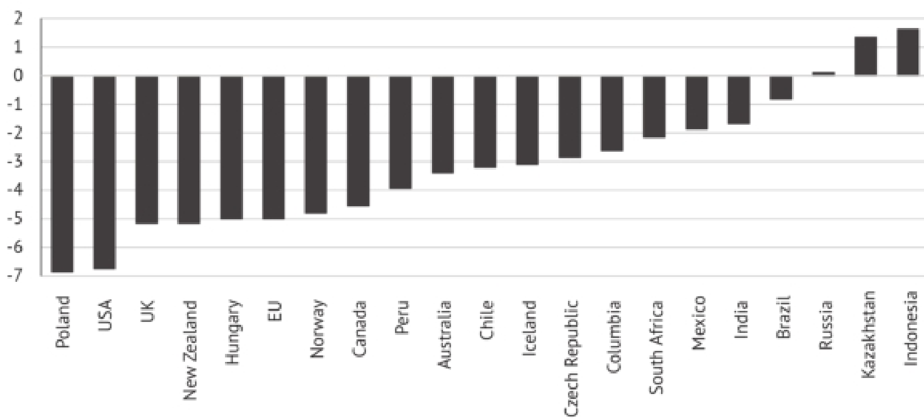

Fig. 1. Real key interest rate as of the end of December 2021, % annually (measured on the basis of the rate of inflation in the previous 12 months)

Source: The websites of central banks, own calculations.

Amid sustainable deviation of the rate of inflation from the target level, a gradual rise in the key rate facilitated the curbing of the inflation rate and inflation expectations. However, with the existing high inflation risks taken into account, the tightening of the monetary policy will continue beyond the year 2021.

It is noteworthy that throughout 2021 the RF Central Bank continued to carry out measures aimed at supporting individuals and the business. Specifically, the RF Central Bank allocated Rb60 bn to facilitate banks' preferential lending to SME out of the list of economic sectors which were hit the hardest by the implications of temporary anti-epidemic measures. Within the limit, the loan rate for a SME entity is set at the level of maximum 8.5% annually, while in case of a guarantee extended by the SME Corporation the interest rate is maximum 8% annually with a deferred payment on the principal and interests being equal up to three months. Until December 30, 2021, in conformity with the program of motivation of lending to SME authorized banks could draw loans from the RF Central Bank against the SME Corporation's surety at the rate of 4% for the term of up to 1.5 years.

Further, the RF Central Bank advised banks, micro-financial organizations and credit unions to meet halfway individuals and SME entities which applied for restructuring of loans in November-December 2021. The RF Central Bank's measures were aimed at supporting borrowers, providing loans to SME entities, as well as reducing payment costs.

2.1.2. The money market

Amid a stable money market situation 2021, structural liquidity surplus[1] amounted on average to Rb1.1 trillion (Rb2 trillion in 2020) (*Fig. 2*). It is noteworthy that by mid-December 2021 the banking sector saw a liquidity deficit of Rb29 bn on the back of temporary liquidity absorbing by the RF Ministry of Finance late in 2021 in order to effect December payments on the expenditure side of the budget. Late in 2021, structural liquidity surplus amounted to Rb1.7 trillion, having surpassed the RF Central Bank's forecasted band of Rb0.6 trillion–Rb1.0 trillion. In 2021, the banking sector's liquidity surplus dynamics are substantiated by an increase of Rb0.1 trillion in correspondent account balances with the RF Central Bank, growth of Rb0.6 trillion in cash funds in circulation, budget operations for the amount of Rb2 trillion and growth of Rb0.1 trillion in reserve requirements.

In 2021, amid structural liquidity surplus the RF Central Bank's deposit auctions were in demand. Within a scope of deposit auctions, the volume of borrowed funds amounted on average to Rb1.3 trillion for a year at the average weighted rate of 5.75% annually (Rb1.3 trillion in 2020 at the average weighted rate of 4.95% annually). To underpin short-term money market rates close to the key interest rate in 2021, the RF Central Bank held repeatedly "fine tuning" deposit auctions for the term of 1 to 6 days. The average volume of borrowed funds attracted under such operations amounted to Rb0.972 trillion at the average weighted rate of 6.0% annually (Rb0.821 trillion in 2020 at the average weighted rate of 5.3% annually).

In Q4 2021, the RF Central Bank suspended issuing and placing coupon bonds to retain flexibility in managing the banking sector's liquidity by means of deposit auctions amid declining liquidity surplus. Overall, in 2021 the regulator carried out 58 placements of coupon bonds; on average the volume of placement was equal to Rb35.8 bn, while in 2020 they carried out 55 issues with an average volume of Rb94.2 bn each.

1 By the RF Central Bank's definition, the level of structural liquidity deficit/surplus is the difference between the debt on refinancing operations and absorbing operations by the RF Central Bank. The banking sector's structural liquidity deficit is a state of the banking sector where credit institutions have a strong need to attract liquidity by means of operations with the RF Central Bank. The opposite situation when credit institutions have a strong need to place funds with the RF Central Bank represents structural liquidity surplus.

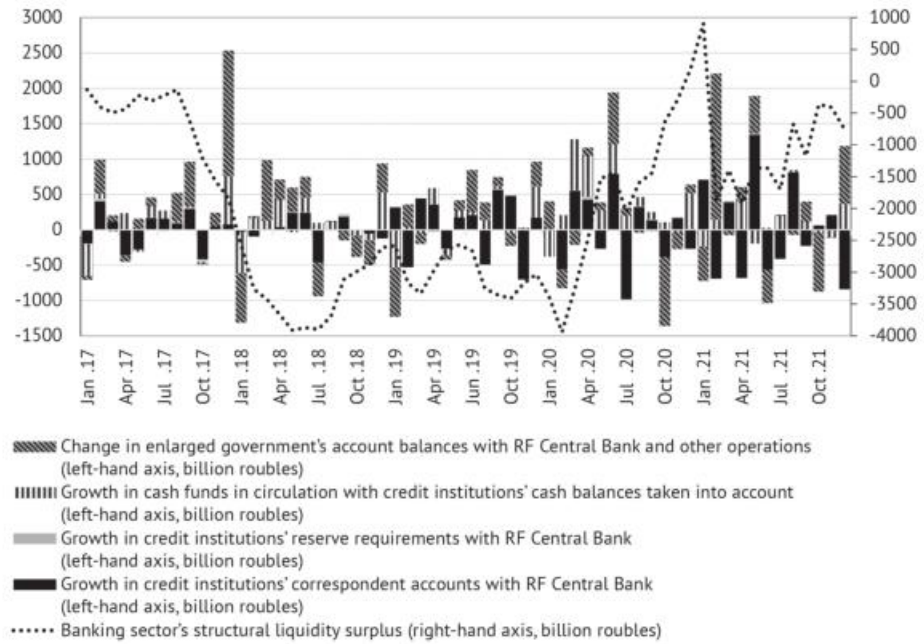

Fig. 2. The banking sector's structural liquidity surplus and its components, 2017–2021

Source: The RF Central Bank

In 2021, the momentum of individual components of the monetary base was also substantiated by a decrease in excessive demand for liquidity in 2020. In January-December 2021, the monetary base in a broad definition increased by 10.1% to Rb20,339 bn (an increase of 9.8% to Rb18,472 bn in 2020). Based on results for 2021, among the most fast-growing components of the broad monetary base were banks' deposits with the RF Central Bank (a 2.3-fold increase to Rb2,805 bn) and reserve requirements (growth of 14.3% to Rb815 bn). Cash funds in circulation and credit institutions' correspondent account balances showed positive growth rates: +4.8% to Rb14,068 bn and +4% to Rb3,762 bn, respectively. As stated above, amid suspension of issues and placement of the RF Central Bank's coupon bonds in Q4, their value on the balance of credit institutions fell to zero by the beginning of January 2022, while early in 2021 it was equal to Rb0.6 trillion *(Table 3)*. Overall, amid growing liquidity surplus the volume of excessive reserves[1] in January-December 2021 increased by 25.7% and amounted to Rb5,455.6 bn (*Table 2*).

1 The banking system's excessive reserves include credit institutions' deposits and correspondent account balances with the RF Central Bank, as well as the RF Central Bank's bonds with credit institutions.

Table 2

Dynamic of the monetary base in a broad definition in 2021, bn roubles

	January 01, 2020	January 01, 2021	January 01, 2022
Monetary base (in broad definition)	16 823.4	18 472.4	20 338.9
— Cash funds in circulation with credit institutions' cash balances taken into account	10 616.1	13 419.6	14 068.1
— Credit institutions' correspondent account balances with RF Central Bank	2 625.5	2 548.5	2 650.6
— Reserve requirements	617.4	713.6	815.3
— Credit institutions' deposits with RF Central Bank	1 027.7	1 220.7	2 805
— Credit institutions' bonds with RF Central Bank	1936.7	570	0.0
For reference: excessive reserves	5 589.9	4 339.2	5 455.6

Source: The RF Central Bank.

Table 3

The RF Central Bank's balance in 2019–2021

	December 31, 2019		December 31, 2020		November 30, 2021	
	billion Rb	% of assets / liabilities	Billion Rb	% of assets/ liabilities	Billion Rb	% of assets / liabilities
Funds placed with nonresidents and securities of foreign emitters	25 342.9	62.6	31 447.5	60.4	32 536.5	59.9
Loans and deposits	3 305.7	8.2	4 442.5	8.5	3 480.7	6.4
Precious metals	6 952.8	17.2	10 446.0	20.0	9 949.8	18.3
Securities	1 121.6	2.8	1 020.0	2.0	973.1	1.8
Other assets	2 252.7	5.6	2 779.9	5.3	4 179.1	7.7
Total assets	**40 513.1**	**100.0**	**52 105.9**	**100.0**	**54 288.9**	**100.0**
Cash in circulation	10 616.5	26.2	13 181.3	25.3	13 719.1	25.3
Account balances with RF Central Bank	16 951.7	41.8	17 798.8	34.2	19 297.1	35.5
Including funds of RF Government	*10 734.1*	*26.5*	*12 645.9*	*24.3*	*12 693.9*	*23.4*
Funds of resident-credit institutions	*4 273.9*	*10.5*	*4 643.4*	*8.9*	*5 683.2*	*10.5*
Settlements funds	–		–		–	
Issued securities	1 952.9	4.8	555.0	1.1	163.9	0.3
Obligations to IMF	1 363.9	3.4	1 640.9	3.1	2 859.1	5.3
Other liabilities	190.6	0.5	9 475.2	18.2	596.1	1.1
Capital	9 437.5	23.3	9 454.7	18.1	17 653.6	32.5
Profit in year under review	–	–	–		–	
Total liabilities	**40 513.1**	**100.0**	**52 105.9**	**100.0**	**54 288.9**	**100.0**

Source: The RF Central Bank

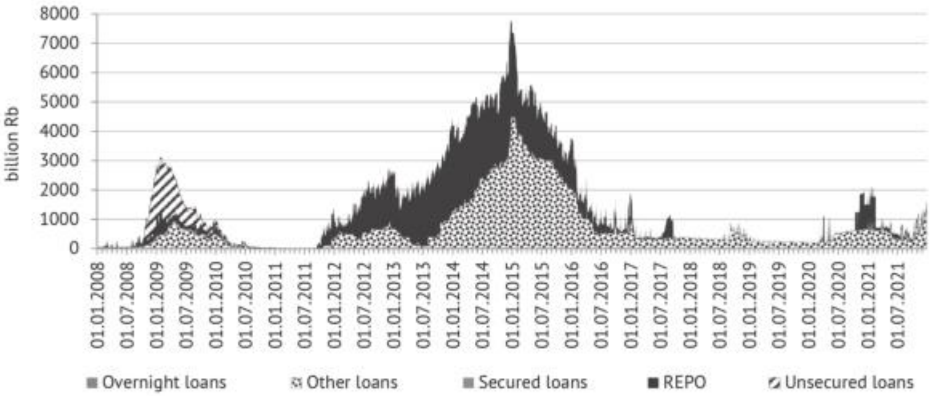

Fig. 3. Commercial banks' debt in roubles to the RF Central Bank, 2008–2021.

Source: The RF Central Bank.

It is noteworthy that 2020 saw considerable growth in the share of cash in circulation (an increase of Rb2.9 trillion or 30% in 2020). The main source of this additional volume of cash was a reduction in households' spending which led to a non-return of the earlier issued cash in transactions on purchasing of goods and services, as well as maintenance of unspent incomes in cash as a precaution amid growing uncertainties.[1] With stabilization of the situation and a lack of new serious negative shocks, in January-December 2021 an increase in cash in circulation turned out to be moderate (4.8% or Rb0.6 trillion), while growth rates of the non-cash component of money supply sped up.

Amid a decrease in the banking sector's excessive demand for liquidity as the money market situation stabilized, in 2021 credit institutions' debt to the RF Central Bank was declining. So, based on results for January-December 2021 the value of loans extended by the RF Central Bank to credit institutions decreased by 14.2% to Rb3.1 trillion (Rb3.6 trillion as of January 1, 2021) (*Fig. 3*). Within the frameworks of REPO auctions, the volume of the regulator's requirements to banks amounted to Rb0.1 trillion as of the beginning of December 2021 (Rb0.85 trillion in 2020), while banks' debt on loans against the pledge of non-marketable assets amounted to Rb1.0 trillion (Rb0.96 trillion in 2020). It is noteworthy that the pattern of banks' overall debt to the RF Central Bank underwent changes: a decrease in banks' debt on REPO auctions was partially made up for by an increase in loans against the pledge of non-marketable assets by virtue of more favorable conditions in terms of a collateral.

In 2021, the regulator kept providing credit institutions with rouble liquidity at REPO auctions for the terms of one month and a year. It is noteworthy that the decision on the renewal of such auctions was taken in May 2020 amid credit institutions' growing demand for liquidity. In 2021, within the framework of REPO auctions for

1 *A. Grebenkina, S. Drobyshevsky, P. Trunin.* A Decrease in Households' Spending is the Main Source of Additional Volume of Cash in 2020. Russia's Economic Development. Issue No.3 (March 2021).

the term of one month credit institutions were granted Rb2.1 trillion (Rb2.6 trillion in 2020). REPO auctions for the term of a year were not much in demand: Rb17 bn were provided on such auctions in 2021 as compared with Rb36bn in 2020.

In 2021 amid structural liquidity surplus, MIACR rate was primarily at the floor of the interest rate collar (*Fig. 4*). In January-December 2021, MIACR rate was equal on average to 5.7% annually, while in 2020 it amounted on average to 4.87% annually. In 2021, a rise in short-term interest rates in the inter-bank segment of the money market is closely related with the tightening by the RF Central Bank of its monetary policy. Overall, the RF Central Bank's activities are aimed at ensuring the required level of liquidity in the banking sector and achieving the monetary policy's operational targets as regards keeping short-term money market interest rates close to the key interest rate.

In 2021, the Russian Federation's international reserves increased by 5.9% to $630.6 bn, a new all-time high (*Fig. 5).* An increase in international reserves facilitated accumulation of foreign-exchange reserves on the back of purchasing by the RF Ministry of Finance of foreign currency within the framework of the fiscal rule, as well as granting of special drawing rights (SDRs) to Russia within the scope of the IMF decision on a new allocation of SDRs in the amount of $17.5 bn among member countries. It is noteworthy that in 2021 monetary gold reserves fell by 4.1% to $133.7 bn primarily because of downward re-evaluation ($28.9 bn)

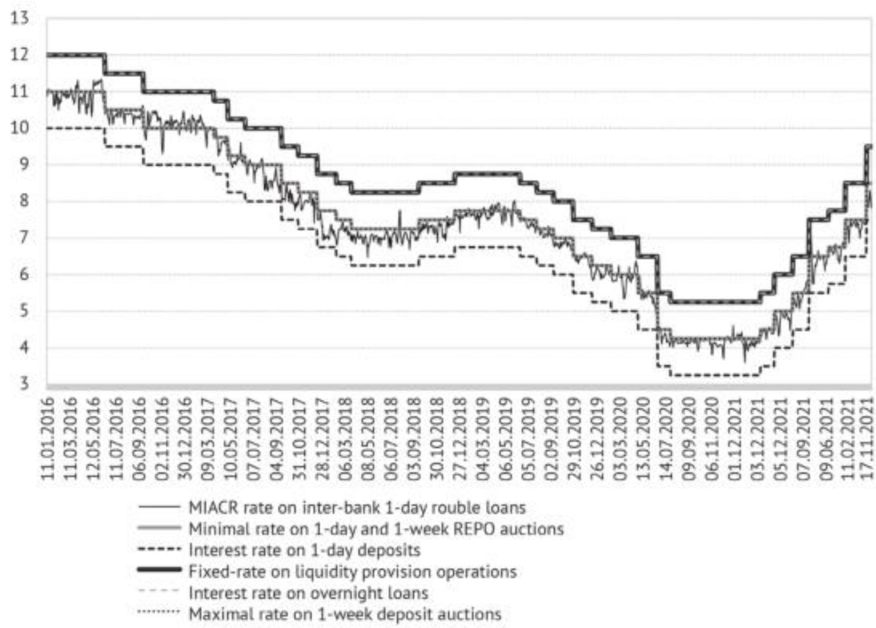

Fig. 4. The RF Central Bank's interest rate collar and dynamics of inter-bank market rates, 2016–2021

Source: The RF Central Bank.

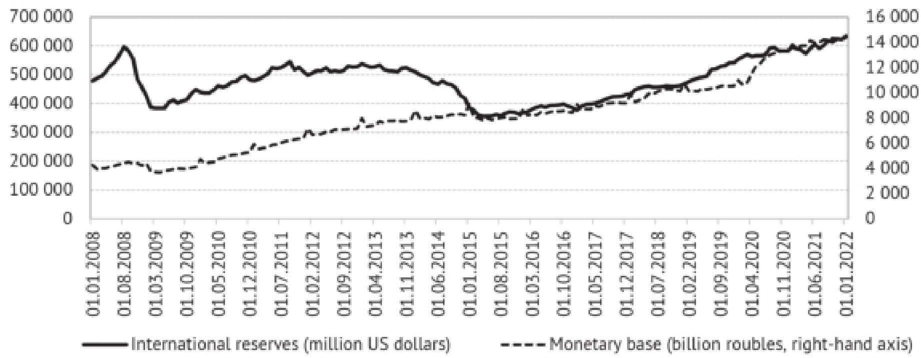

Fig. 5. Dynamics of monetary base (narrowly defined) and gold and foreign-exchange (international) reserves of the Russian Federation, 2008–2021

Source: The RF Central Bank.

of this asset. Growth rates of foreign-exchange reserves were equal to 8.9% and as of the beginning of January 2022 foreign-exchange reserves amounted to \$499 bn. As of January 1, 2022, the share of foreign-exchange reserves in overall reserve assets was equal to 77.1% (76.7% in 2020), while the unit weight of gold, to 22.9% (23.3% in 2020).

According to the data for H1 2021, the share of the US dollar in foreign-exchange reserves was equal to 16.4% (22.2% in mid-2020), the share of euro – 32.3% (29.5% in mid-2020), the share of yuan – 13.1% (12.2% in mid-2020) and the pound sterling – 6.5% (5.9% in mid-2020). Note that substantial changes in the pattern of foreign-exchange reserves took place as far back as 2018 when the share of assets in yuan increased from 2.8% to 14.2%, while the share of assets in US dollars decreased from 45.8% to 22.7%. Such changes in the pattern were apparently driven by the need to minimize possible geopolitical risks.

In 2021, the tightening of the monetary policy had an effect on money aggregate dynamics. Specifically, average monthly growth in M2 money supply (as compared with the relative period of the previous year) was equal to 10.7%, while in 2020 it amounted to 14.1%. With average growth rates of monetary base being equal to 8.0% in 2021 (12.0% in 2020), money multiplier (the ratio of M2 aggregate to the monetary base) turned out to be equal to 3.1 (3.0 in 2020). Advanced growth in M2 money supply by contrast with the monetary base is ensured primarily by a pickup in the volumes of lending (a six-year high) to non-financial entities. It is noteworthy that the achieved value of money multiplier is the average value for developing economies (Ukraine, Belarus and Kazakhstan), while for developed countries it is normally in the range of 5–8. In the past 20 years, as the banking sector was evolving in East European countries, they saw growth in money multiplier. For example, in Poland it increased from 3.1 to 4.7 in 1993-2021, while in Russia it picked up in the same period from 1.4 to 3.1.

2.1.3. Inflation processes

Based on results for 2021, the rate of inflation in Russia amounted to 8.4% (4.9% in 2020), an increase of 4.4 p.p. over the RF Central Bank's target (*Fig 6*). Inflation sped up amid fast expansion of demand with limited capacities to increase supply of numerous goods and existing irregularities in global markets supplies. Inflation sped up as far back as November 2020 when a monthly increase in consumer prices was equal to 0.7%, while in October 2021 the monthly consumer price index amounted to 1.1%, a six-year high.

Core inflation dynamics (without taking into account prices related with seasonal and administrative factors) point to sustainability of inflation processes. Specifically, in January-December 2021 it was constantly growing from 4.6% (in January 2021 on January 2020) to 8.9% (in December 2021 on December 2020).

Based on results for December 2021, food inflation was equal to 10.6% relative to December 2020 (+6.7% in December 2020 on December 2019). Amid a low yield of vegetables and increased costs, price growth leaders were fruit and vegetable products (+14.0% by December 2020), eggs (+16.0% by December 2020), meat and poultry (+17.5% by December 2020) (*Table 4*).

In December, a rise in prices for nonfood products amounted to 8.6% by December 2020 (+4.8% in December 2020 on December 2019). As demand for nonfood products was actively growing amid limited supply and delivery problems, prices appreciated the most for building materials (23.75% in December 2021 on December 2020 against 5.3% in December 2020 on December 2019), audio visual goods (12.7% in December 2021 on December 2020 against -0.6% in December 2020 on December 2019), motor petrol (8.84% in December 2021 on December 2020 against 2.53% in December 2020 on December 2019), as well as foreign cars (14.4% in December 2021 on December 2020 against 10.3% in December 2020 on December 2019) and Russian cars (19.6% in December 2021 on December 2020 against 9.4% in December 2020 on December 2019).

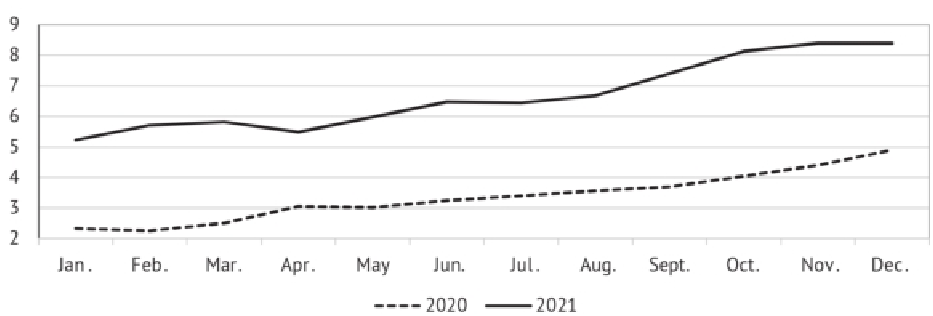

Fig. 6. CPI growth rates in 2020–2021, % in the past 12 months

Source: Rosstat, own calculations.

Table 4

Annual rates of prices rises for individual types of consumer goods and services in 2019–2021, %, December on December of the previous year

	2019	2020	2021	2019–2021
CPI	**3.0**	**4.9**	**8.4**	**12.7**
Food products	**2.6**	**6.7**	**10.62**	**21.1**
Meat and poultry	0.2	2.7	17.53	20.9
Grain and beans	15.2	20.1	16.11	60.6
Eggs	-5	15.1	16.04	26.9
Alimentary products	5.7	12.1	14.95	36.2
Fruit and vegetable products	-2	17.4	13.98	31.1
Sugar	-30.8	64.5	12.33	27.9
Fish and seafoods	5.2	5.2	10.66	22.5
Bread and bakery products	6.3	7.3	10.27	25.8
Milk and dairy products	6.1	3.6	9.84	20.7
Sunflower oil	-2.9	25.9	8.65	32.8
Spirits	1.2	2.8	2.56	6.7
Nonfood products	**3**	**4.8**	**8.58**	**17.2**
Building materials	2.7	5.3	23.75	33.8
Tobacco products	11	8.2	16.37	39.8
Audio visual goods	-5.7	-0.6	12.74	5.7
Motor petrol	1.9	2.5	8.84	13.7
Washing and cleaning products	4.9	6	7.43	19.5
Medicines	6.9	9.8	4.63	22.8
Knitted goods	2.4	2	4.16	8.8
Footwear and linen	2.2	1.6	3.36	7.3
Services	**3.8**	**2.7**	**4.98**	**11.9**
Passenger transportation services	6.1	1.1	9.58	17.5
Consumer services	3	3.3	6.91	13.8
Health and fitness	3.1	3.8	5.94	13.4
Medical services	3.8	4.3	5.82	14.6
Educational services	5.6	1.9	5.54	13.6
Housing and public utilities	4.3	3.6	4.14	12.5

Source: Rosstat.

Fee-based services to households appreciated by 4.98% in December 2021 on December 2020 (2.7% in December 2020 on December 2019). Specifically, prices were appreciating quite quickly for passenger transportation services (+9.6%), cultural services (+8.6%), consumer services (+6.9%) and insurance services (+6.7%). Prices rises in the services sector were primarily driven by anti-epidemic restrictions and upward wage dynamics.

Overall, as seen from the decomposition of inflation by its components the largest contribution to the inflation rate was made by price increases for food products (4.1%), while that of nonfood products and the services sector was equal to 3.0% and 1.4%, respectively (*Fig. 7*). This can be substantiated by a low yield of

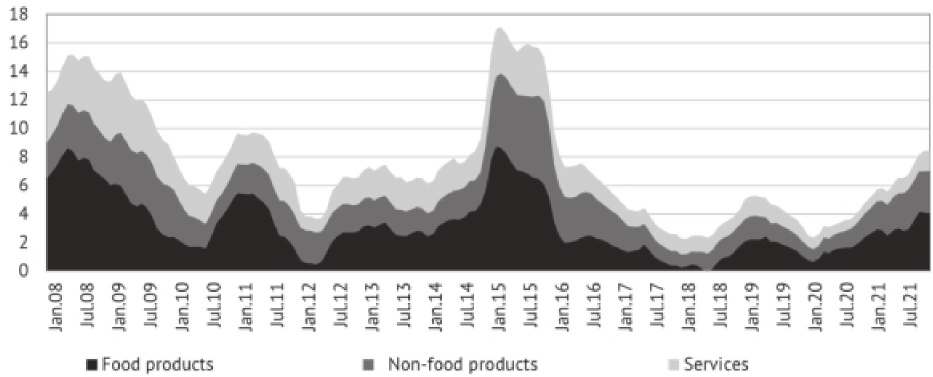

Fig. 7. Inflation pattern in 2008–2021, %, month on the corresponding month of the previous year

Source: Rosstat; own calculations.

vegetables, increased costs in livestock farming, as well as a considerable pickup in global prices for food products.

As stated above, key inflationary factors were a fast consumer demand revival as opposed to capacities to increase output. Specifically, in 2021 retail sales growth rates were equal to 7.3%, a record-high since 2008 (-3.2% in 2020; 1.9% in 2019). In 2021, households' real cash income increased by 3.4% (-1.4% in 2020; 1.7% in 2019). By estimates of Sberindex[1], households' consumer spending increased on average in nominal terms by 12.8% in 2021 as compared with 2020, while in March-December 2020[2] its growth was negative (-7.2%).

A speed-up of the rate of inflation was driven by the situation on the labor market. In January-November 2021, average growth rates of real wages were equal to 2.7% (2.1% in January-November 2020; 2.4% in January-November 2019). The level of unemployment renewed its historic minimum in October 2021 and amounted to 4.3% (6.3% in 2020) and remained at this level till the end of the year. Specifically, the number of job vacancies corresponds to the historic maximum (+49% in December 2021 on December 2020).[3] Labor shortages will contribute to further growth in wages and cost-push inflation.

Apart from a quick revival of domestic demand, inflation was sped up on the back of appreciation of global prices for most goods and services during the year. Though in November-December 2021 growth rates of global prices for primary commodities slowed down and prices for some categories of raw materials even depreciated, the inflation rate is still picking up worldwide on a broad range of goods. So, 2021 saw global price increased for fertilizers (a 2.6-fold increase),

1 URL: https://sberindex.ru/
2 Available observation period.
3 URL: https://stats.hh.ru/

metals (27.7%) and energy commodities (77.1%).[1] The food price index grew from 113.5% in January 2021 to 134.1% in January 2022. In 2021, there was a pickup in global prices for meat (an increase of 17.3%), dairy products (18.8%), grain 12.5%, sugar (19.7%) and vegetable oil (33.8%).[2]

In 2021, an upturn in inflation was a sustainable global trend and was explicit both in developed and developing countries. From January through December 2021, inflation (measured by the consumer price index in relation to the relevant month of the previous year) increased in the US (from 1.4% to 7.7%), Germany (from 1% to 5.3%) and Canada (from 1% to 4.8%). Also, a rise in inflation was typical of developing countries: Brazil (from 4.6% to 10.1%), Kazakhstan (from 7.5% to 8.4%), Mexico (from 3.5% to 7.4%), Poland (2.6% to 8.7%). With the abovementioned global trends in consumer price dynamics taken into account, it is expected that in future an additional inflationary factor for the Russian economy can become the leading developed countries' tightening of their monetary policies, resulting in developing countries' assets becoming less attractive, higher volatility on global financial markets, higher risks of depreciation of national currencies and growing inflation expectations.

According to the data of the OOO InFOM, throughout 2021 households' inflation expectations were at a sustainably high level close to multi-year heights and were characterized by an upward trend. Specifically, from January through December 2021 they increased from 10.5% to 14.8%, a five-year high. As per the data of the monitoring,[3] carried out by the RF Central Bank, the balance of enterprises' answers regarding the expected price dynamic increased from 18.3 p.p. in January 2021 to 27.4 p.p. in June 2021 and stabilized in H2 2021 at the level of 25–26 p.p., surpassing heights seen in 2019–2020. According to the INFOM report, an upturn in enterprises' price expectations was primarily driven by growth in costs and increased demand.[4] It is noteworthy that with increased inflation expectations, the inflation rate will remain high in 2022.

So, based on results for 2022 the inflation rate turned out to be 4.4 p.p. above the target (4%) because of the impact of the abovementioned inflation factors. We believe that the RF Central Bank's decisions on gradual raising of the key rate, as well as signals that it is highly likely to be increased at the nearest meetings of the RF Central Bank contribute to a decline in inflation and inflation expectations. However, taking into account inertia in inflationary processes, inflation may remain above the target of 4% for quite a long time.

2.1.4. Balance of payments and FX rate

According to RF Central Bank's preliminary estimate of the 2021 balance of payment, current account balance reached its all-time high of $120.3 bn, a 3.3-fold increase ($84.3 bn in absolute value) as compared with 2020.

1 URL: https://www.worldbank.org/en/research/commodity-markets
2 UN FAO data. URL: http://www. fao.org/
3 URL: https://www.cbr.ru/analytics/dkp/inflationary_expectations/
4 Similar results were received by S.V. Tsukhlo in his research "Adaptability of Various Groups of Enterprises to the 2020 Crisis." // The Online Monitoring of Russia's Economic Situation. Trends and Challenges of the Social and Economic Situation in 2021. Issue No.18(150). November.

Merchandise trade surplus amounted to $185.9 bn, an increase of 98% ($92 bn in absolute value) as compared with 2020 ($93.7 bn) (*Fig. 8*). This growth was largely driven by an increase of 47% in the value of exports from $333.4 bn in 2020 to $490 bn in 2021. This growth is largely substantiated by sustainability of supply volumes in physical terms and a pickup in average annual export prices for all main commodity items of Russian commodity exports without exception (*Table 5*). As a result, the share of the fuel-and-energy industry in overall exports increased from 45.1% in 2020 to 49.1% in 2021, that is, close to the level seen the 2000s (*Fig. 9*).

Table 5

Changes in prices for essential goods of Russian exports in 2021 as compared with 2020

Commodity group	Share of commodity group in exports, %	Average export price of supplies, USD per ton		Price growth, %
		January-November 2021	January-November 2020	
Crude oil	22.9	472	302	+57
Petrochemicals	14.2	475	321	+48
Natural gas*	10.8	252	124	+104
Ferrous metals	6.0	661	399	+66
Fossil coal	3.5	80	63	+26
Mineral fertilizers	2.5	315	203	+55
Wheat and meslin	1.8	265	209	+27
Liquified natural gas**	1.6	107	99	+8
Aluminium	1.5	1990	1573	+27
Processed timber	1.3	351	232	+52
Copper	0.84	8253	5780	+43
Vegetable oil	0.82	1273	743	+71
Iron ore	0.76	150	75	+101
Fresh and frozen fish	0.60	1956	1642	+19
Plywood***	0.40	635	398	+59
Rubber	0.40	1716	1262	+36

* – Price is specified in US dollars/billion cubic meters
** – Price is specified in US dollars/ thousand cubic meters
*** – Price is specified in US dollars/ cubic meters
Source: The Federal Customs Service, own calculations.

Amid increased exports, trade balance improvement was facilitated by a more moderate (both in absolute and relative terms) increase in import supplies: growth of 27% in 2021 (from $239.6 bn in 2020 to $304 bn in 2021). Such an upward trend of value of supplies can be explained on one side by the stability of the rouble in 2021: according to the data of the RF Central Bank, the index of the

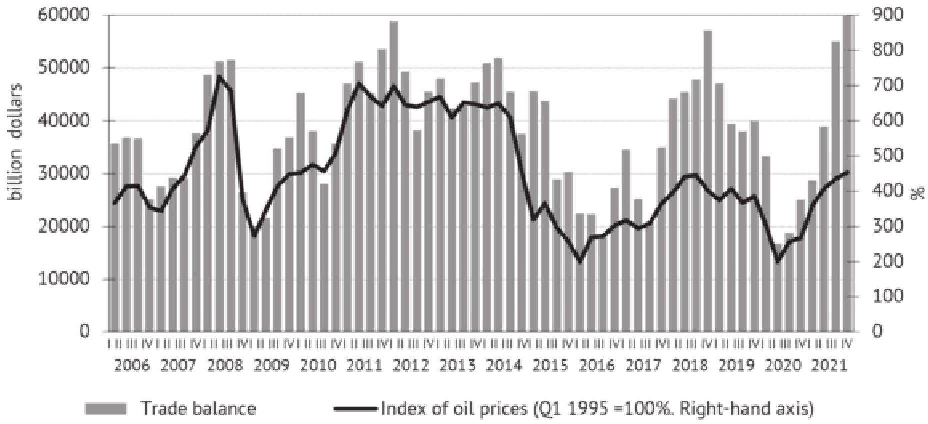

Fig. 8. Trade balance and oil prices dynamics

Source: The RF Central Bank; the IMF.

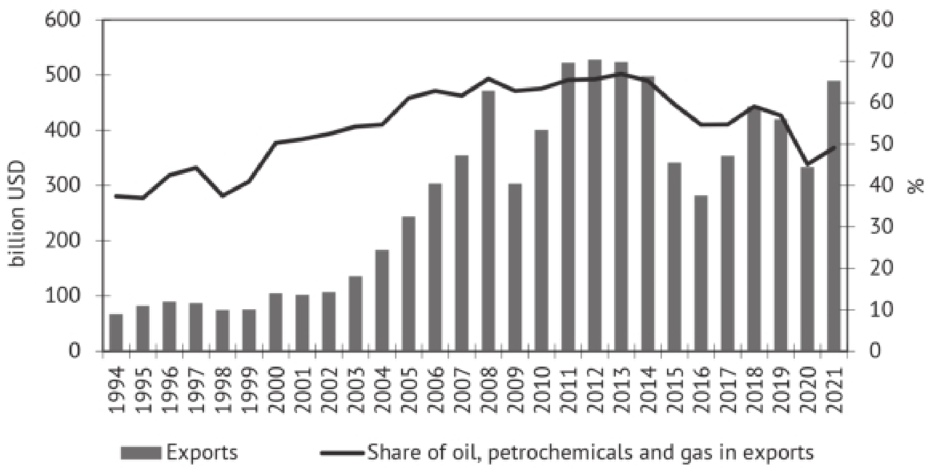

Fig. 9. Dynamic of exports of goods and the share of products of the fuel-and-energy industry, 1994–2021

Source: The RF Central Bank.

Russian rouble/US dollar real effective exchange rate declined by the mere 0.6% in 2021 relative to 2020. On the other side, it was recovery growth of revenues of the Russian economy and appreciation of global prices for imported products amid ongoing need in such supplies (machinery and equipment, polymers and medical supplies).

Also, the trade balance in services got slightly worse: in 2021 it was equal to -$19.9 bn, which is 17% more in absolute value than in 2020 (-$17.0 bn). Exports of services increased by 16% (growth of $7.6 bn from $47.0 bn to $54.6 bn owing to foreigners' trips to Russia and a pickup in transportation services), while imports, by 17% from $64.1 bn to $74.5 bn (also owing to Russians' trips abroad and a pickup in transportation services).

In 2021 the balance of labor remuneration and the balance of rent[1] remained virtually zero.

In 2021, investment income balance[2] changed quite considerably: it got worse by $7.5 bn (an increase from -$34.1 bn to -$41.6 bn) primarily on the back of an increase of $35.7 bn in 'due to' incomes (repatriation of investment incomes) simultaneously with more moderate growth in 'due from' incomes (an increase of $28.2 bn). It is noteworthy that the Russian Federation's investment balance surplus is sustainably negative because accumulated investments in the Russian Federation and income on them surpass largely Russia's investments (and relevant incomes on them) abroad. Growth in 'due to' investment incomes owing to a pickup in Russian companies' profits caused a deficit of this component of current account surplus.

In 2021, the financial account deficit (without reserve assets taken into account) was equal to $55.4 bn, which is comparable with 2020 when it amounted to $53 bn. However, this indicator's pattern underwent considerable changes. Specifically, net capital outflow was primarily driven by growth of 81.5bn in financial assets in 2021 (in 2020 foreign financial assets increased by the mere $13.1 bn). Foreign financial liabilities grew by $26.1 bn, while in 2020 they decreased by 39.9 bn.

As a result, in 2021 the private sector's net capital outflow picked up considerably to $72 bn ($50.4 bn in 2020), a seven-year high (*Fig. 10*). At the same time, in 2021 net capital outflow in the banking sector was insignificant and amounted to the mere $2.7 bn ($21.7 bn in 2020). In the non-banking sector, net capital outflow amounted to $69.3 bn against $28.7 bn in 2020. Though capital outflow picked up in 2021, it was lower than expected: earlier in October the RF Central Bank forecasted it at the level of $80 bn within a year, while for 11 months its actual value was estimated by the RF Central Bank at the level of $73.9 bn, which means that increased geopolitical risks late in 2021 did not materialize in the predicted capital outflow volume.

Foreign assets growth took place owing to operations of other sectors: $84 bn in 2021, an eight-year high. A pickup in capital outflow from other sectors was largely driven by growth in foreign direct investments aimed at reinvesting income of foreign subsidiaries, as well as increased investments in the capital of related foreign corporations. Specifically, other sectors' outgoing foreign direct investments amounted to $53.6 bn ($5.7 bn in 2020). Portfolio investments abroad were equal to $13 bn ($11.9 bn in 2020); the value of other assets amounted to $10.3 bn (-$6.4 bn); trade credits and advances amounted to $8.5 bn ($6.6 bn in

1 This item takes into account revenues received by residents from use of land granted at their disposal and use of natural resources by non-residents and vice versa.
2 This item shows income of residents received from ownership of foreign financial assets (in terms of direct, portfolio and other investments) and similar income paid to nonresidents based on results of their investments in the Russian economy. Income includes dividends, reinvested income and interests.

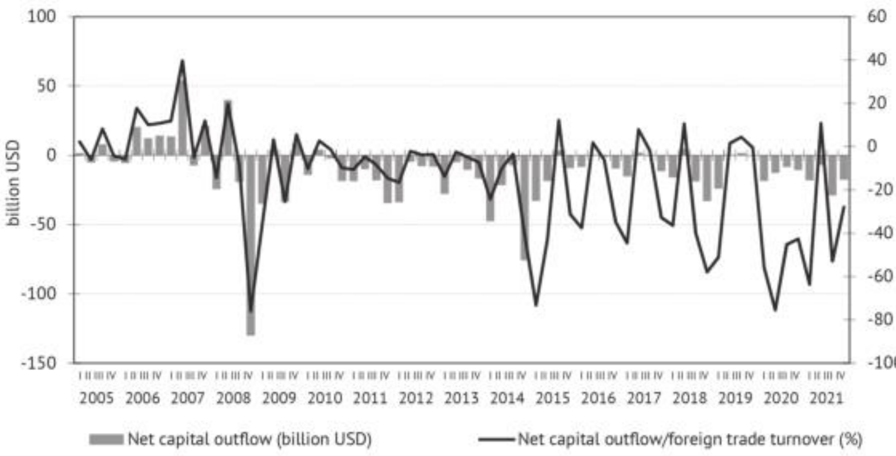

Fig. 10. The private sector's net capital outflow, 2005–2021

Source: The RF Central Bank; own calculations.

2020). By contrast, in 2021 the banking sector's foreign assets decreased by $5.6 bn (-$4.5 bn in 2020).

A pickup in Russian residents' financial obligations was driven largely by the non-banking sector's operations. Specifically, in 2021 other sectors' foreign obligations increased by $15.8 bn (in 2020 they decreased by $16.4 bn). Growth in foreign obligations of other sectors was facilitated by an increase in incoming direct investments ($30.7 bn in 2021 against $8 bn in 2020) and other obligations ($6.9 bn in 2021 against $0.2 bn in 2020). There was a decrease in portfolio investments and loans by $11.3 bn (-$15.3 bn in 2020) and $10.5 bn (-$9.3 bn in 2020), respectively. The banking sector's obligations decreased by $8.3 bn (-$26.1 bn in 2020).

It is noteworthy that based on results for 2021 the volume of the government authorities' obligations to nonresidents declined by $3.3 bn (+$3.7 bn in 2020). According to the data as of early in December 2021, the share of nonresidents on the OFZ (federal loan bond) market fell to 20.5%, while early in the year it was equal to 23.3%. A decrease in government authorities' obligations is substantiated primarily by the rhetoric of sanctions; internal and geopolitical risks; expectations of the tightening of the monetary policy by the US Federal Reserve; high uncertainties about the prospects of development of the global and Russian economies, making it less attractive both for Russian and foreign economic agents to attract nonresidents' investments into Russian assets.

The excess of the current account surplus over the value of capital outflow on financial account was made up for by an increase of $63.5 bn (-$13.8 bn in 2020) in international reserve assets. Accumulation of foreign exchange reserves can be explained by the fact that the RF Ministry of Finance was buying foreign currency within the scope of the fiscal rule following oil prices' overshooting of the cut-off price (about $40.5 bn in 2021) and receipt by Russia of $17.5 bn worth of special drawing rights within the framework of the IMF decision on a new allocation of SDRs among its member countries.

In 2021, the Russian rouble/US dollar exchange rate changed insignificantly, a decrease of 0.6% to Rb74.3 for $1. Specifically, the exchange rate dynamic was uneven during the year. After appreciation in H1 2021 to Rb72.4 for $1, in Q4 2021 the rouble fell by 2.2% to $74.3 for $1because of higher geopolitical risks. Late in 2021, the fundamentally justified Russian rouble/US dollar exchange rate still stood at Rb70 for $1, which means that the Russian national currency was undervalued for 6%.[1] The weakening of the rouble early in 2022 led to a further gap between the actual exchange rate and the fundamental one due to increased geopolitical risks and capital flight from rouble-denominated assets. In this situation, the rouble outlook for 2022 will be still determined to a large extent by geopolitical factors.

It is noteworthy that in 2021 the Russian rouble/US dollar nominal effective exchange rate consolidated at 6.1%, while effective exchange rates of numerous developing countries targeting the rate of inflation decreased (South Africa: -2.4%; Brazil: -4.2%, Poland: -4.3%) (*Fig. 11*). Based on results for 2021, Turkey saw the most dramatic weakening of its national currency (-41%). It is noteworthy that despite growing global uncertainties and expectations of the tightening by the US Federal Reserve of its monetary policy, spurring capital outflow from emerging markets, the Russian rouble was underpinned by appreciation of prices for oil.

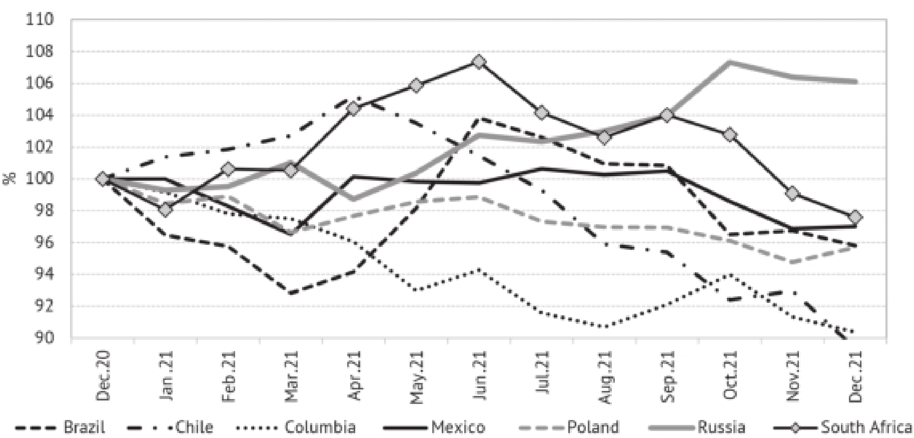

Fig. 11. Dynamic of nominal effective exchange rate of developing countries which target the rate of inflation (December 2020 = 100%)

Source: The IMF; own calculations.

1 For more details, see. *A.V. Bozhechkova, S.G. Sinelnikov-Murylev, P.V. Trunin.* The Factors of Rouble Exchange Rate Dynamics in the 2000s and the 2010s // Voprosy Ekonomiki, 2020, Issue No. 8, pp.11–18.

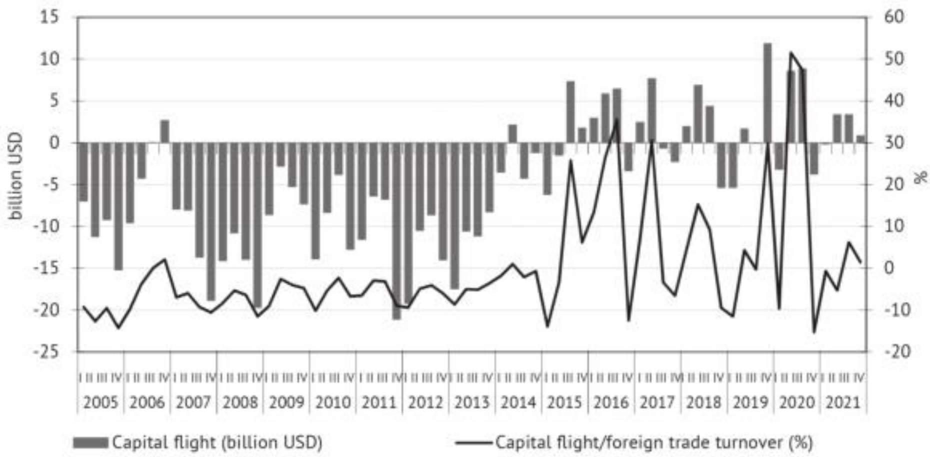

Fig. 12. Capital flight dynamic, 2005–2021

Source: The RF Central Bank; own calculations.

In 2021, Russia's foreign debt increased by 2.4% and as of January 1, 2022 was equal to $478.2 bn. The foreign debt of government authorities declined by 3.9% to $62.6 bn on the back of foreign capital outflow from the Russian OFZ market. Banks' external debt increased by 10.7% to $79.8 bn, while enterprises' foreign liabilities decreased by 4.8% to $301.6 bn.

By our estimates, at year-end 2021 capital flight[1] (*Fig. 12*) was equal to $7.5 bn, a decrease of 29% on 2020, which corresponds to the level seen in 2018–2019.