

# MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

## TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

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## Monitoring of Russia's Economic Outlook

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THE RUSSIAN PRESIDENTIAL ACADEMY  
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# 1. SITUATION ON THE CRUDE OIL MARKET IN Q1 2021

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*One of the main factors behind the reduction in oil supply and, consequently, the increase in oil prices in Q1 2021 was the voluntary decision of Saudi Arabia under the OPEC+ agreement to further reduce its production by 1 mbpd. This fact resulted in a record overall conformity with the original decision, which came to 115% in February 2021. A potential risk factor for the oil prices dynamic is the decision taken at the 15<sup>th</sup> OPEC+ meeting to raise production targets in Q2 2021, coupled with a rapid increase in the number of coronavirus cases reported in Asian countries.*

## **OPEC+ agreement in Q1 2021**

At the meeting of the OPEC+ agreement participating countries held on December 3, 2020,<sup>1</sup> it was decided to gradually ease restrictions on oil production. In particular, the participating countries decided to raise total production by 0.5 million barrels per day from January 1, 2021 (from 7.7 mn to 7.2 mbpd) instead of 2 mbpd. (from 7.7 mn to 5.7 mbpd). This was a compromise between the parties to the agreement, taking into account the second wave of coronavirus; the introduction of new restrictive measures leading to a reduction in oil demand; the rapid recovery of oil production in Libya, which is not a party to the agreement on cutting oil production.<sup>2</sup> In addition, a decision was made on the monthly assessment and target the market. The actual overall conformity with the original decision was 103% in January.

Following the outcome of the OPEC+ January meeting,<sup>3</sup> the countries participating in the agreement decided to raise the volume of oil production by 75,000 barrels per day in February and March 2021. For the 10 OPEC countries participating in the agreement, the quotas adopted for January 2021 were maintained until the end of Q1 – the total production cuts were supposed to be 4.564 mbpd. For non-OPEC countries, the reduction was expected to decrease from 2.636 mbpd in January, up to 2.561 mbpd in February and up to 2.486 mbpd. In March, due to a reduction in the quota and, accordingly, an increase in oil production for Russia (65,000 bpd) and Kazakhstan (10,000 bpd) during each of the months (*Table 1*).

The real overall conformity with the original decision amounted to 115% in February, a large contribution to this outcome was made by the commitment

1 12th OPEC and non-OPEC Ministerial Meeting concludes// OPEC. 03.12.2020. URL: [https://www.opec.org/opec\\_web/en/press\\_room/6257.htm](https://www.opec.org/opec_web/en/press_room/6257.htm)

2 *Kaukin A.S., Miller E.M.* Global oil market in late 2020 // Russian Economic Developments. 2020. No. 1(28). P. 7–10.

3 13th OPEC and non-OPEC Ministerial Meeting concludes// OPEC. 05.01.2021. URL: [https://www.opec.org/opec\\_web/en/press\\_room/6310.htm](https://www.opec.org/opec_web/en/press_room/6310.htm)

of Saudi Arabia to voluntarily reduce production by 1 mbpd, which the country undertook from January 2021.

At the meeting of the OPEC+ participating countries held on March 4–5, 2021,<sup>1</sup> it was decided to maintain quotas for daily oil production at the level of March 2021 in order to restore demand for fuel. The exceptions were Russia and Kazakhstan, which were allowed to raise production by 130,000 bpd and 20,000 bpd, respectively, due to the growth in fuel demand (maintaining seasonal consumption patterns). The deadline for the agreement participants to compensate for oil overproduction (from March to the end of July 2021) was also extended. The actual overall conformity with the original decision was 113% in March, as a month earlier a significant contribution to the outcome was made by Saudi Arabia's voluntary reduction of production by 1 mbpd.

At the 15<sup>th</sup> meeting of the countries participating in the OPEC+ agreement,<sup>2</sup> oil production targets for May–July 2021 were approved (*Table 1*): the total volume of daily cut in oil production by July should be 5.7 mbpd. Also, until the end of September 2021, the period for using the compensation mechanism for previously under-reduced production was extended: until April 15, OPEC+ countries with oil overproduction volumes had to submit their compensation plans to the OPEC+ secretariat. Thus, in Q2 2021, oil production from the OPEC+ member countries is expected to increase.

### Oil price forecast<sup>3</sup>

According to the EIA projections, oil reserves are expected to decrease on the back of the growth of global demand and the fulfillment of the terms of the OPEC + deal. This will result in global oil and liquid fuel consumption averaging 97.8 mbpd in 2021, and an increase of 3.3 mbpd in 2022. In addition, according to the EIA projections, the average price of Brent crude oil in 2021 will be \$52.7 bbl,

*Table 1*

Voluntary cuts in daily oil production under the OPEC+ deal for individual countries, thousand b/d

Country	Base	January		February		March		April		May		June		July	
		Δ	plan	Δ	plan	Δ	plan	Δ	plan	Δ	plan	Δ	plan	Δ	plan
Iraq	4653	-796	3857	-796	3857	-796	3857	-796	3857	-748	3905	-699	3954	-637	4016
Saudi Arabia	11000	-1881	9119	-1881	9119	-1881	9119	-1881	9119	-1768	9232	-1653	9347	-1505	9495
UAE	3168	-542	2626	-542	2626	-542	2626	-542	2626	-509	2659	-476	2692	-433	2735
Kazakhstan	1709	-292	1417	-282	1427	-272	1437	-252	1457	-246	1463	-240	1469	-234	1475
Russia	11000	-1881	9119	-1816	9184	-1751	9249	-1621	9379	-1582	9418	-1543	9457	-1505	9495
OPEC 10	26683	-4564	22119	-4564	22119	-4564	22119	-4564	22119	-4287	22396	-4010	22673	-3650	23033
Non-OPEC	17170	-2636	14534	-2561	14609	-2486	14684	-2336	14834	-2263	14907	-2190	14980	-2109	15061
OPEC+	43853	-7200	36653	-7125	36728	-7050	36803	-6900	36953	-6550	37303	-6200	37653	-5759	38094

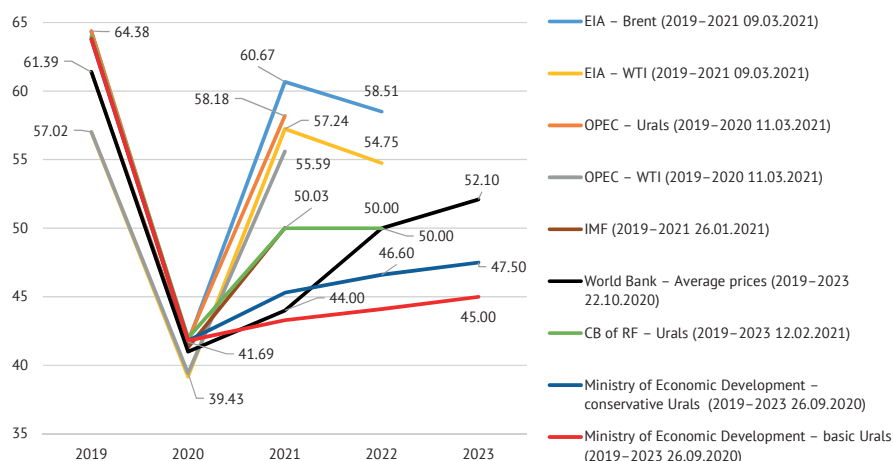
Sources: Voluntary Production Levels// OPEC. 05.01.2021/ URL: [https://www.opec.org/opec\\_web/static\\_files\\_project/media/downloads/Voluntary%20Production%20Levels.pdf](https://www.opec.org/opec_web/static_files_project/media/downloads/Voluntary%20Production%20Levels.pdf); 14th OPEC and non-OPEC Ministerial Meeting// OPEC. 04.03.2021. URL: [https://www.opec.org/opec\\_web/en/press\\_room/6375.htm](https://www.opec.org/opec_web/en/press_room/6375.htm); Voluntary Production Levels// OPEC. 01.04.2021/ URL: [https://www.opec.org/opec\\_web/static\\_files\\_project/media/downloads/15th%20ONOMM%20-%20Production%20adjustments%20table.pdf](https://www.opec.org/opec_web/static_files_project/media/downloads/15th%20ONOMM%20-%20Production%20adjustments%20table.pdf)

1 14th OPEC and non-OPEC Ministerial Meeting// OPEC. 05.03.2021. URL: [https://www.opec.org/opec\\_web/en/press\\_room/6375.htm](https://www.opec.org/opec_web/en/press_room/6375.htm)

2 15th OPEC and non-OPEC Ministerial Meeting concludes// OPEC. 01.04.2021. URL: [https://www.opec.org/opec\\_web/en/press\\_room/6400.htm](https://www.opec.org/opec_web/en/press_room/6400.htm)

3 Projections in question were made before OPEC+ announced an increase in daily production targets in May–July 2021. Projections are scheduled to be updated in the first half of May 2021.

## 1. Situation on the crude oil market in Q1 2021



**Note.** The date of publication of the forecast is indicated in the parentheses.

*Fig. 1. Oil price forecast, USD/bbl*

Source: own compilations.

and in 2022 it will rise to \$53.4 bbl.<sup>1</sup> The high level of global oil reserves and the excess level of its production will limit the price growth in 2021 (*Fig. 1*).

The World Bank forecasts that oil prices will rise to \$ 44 bbl in 2021, as a gradual increase in demand is superimposed on the easing of supply constraints in OPEC+ countries. The main risks are the duration of the pandemic, including the possibility of strengthening subsequent waves of infection and the spread of the vaccine.<sup>2</sup> The International Monetary Fund does not expect a sharp recovery in oil prices in the near future, predicting that in 2021 prices will be in the range of \$40 to \$50 bbl.<sup>3</sup>

The Bank of Russia raised the forecast for the price of Russian Urals oil in 2020 to 41 from \$38 bbl. The Urals price forecast for 2021 was also increased to \$45 from \$40 bbl. In 2022, the regulator expects the price of oil to reach \$45 bbl, in 2023 – \$50 bbl.<sup>4</sup>

According to the conservative forecast scenario of the Ministry of Economic Development of the Russian Federation, the average price of Russian Urals crude oil will be \$45.3 bbl in 2021, and by 2023 the price will rise to \$47.5 bbl. The Ministry's baseline scenario assumes the price of Urals crude oil in 2021 to be just above \$43 bbl.

Among the factors of the decline in oil prices are the following: new outbreaks of coronavirus infection (for example, similar to those currently observed in a number of Asian countries, including India and Japan); a shortage of vaccines; a further decline in demand for motor fuels in the United States; a sharper than expected increase in production by OPEC+ participating countries.

### Russian oil market at the beginning of 2021

According to the International Energy Agency (IEA), in January 2021, Russia produced 9.22 mbpd of oil excluding gas condensate, which corresponded to

- 1 Short-term energy outlook / EIA. 12.01.2021. URL: [https://www.eia.gov/outlooks/steo/report/global\\_oil.php](https://www.eia.gov/outlooks/steo/report/global_oil.php)
- 2 World Bank Commodities Price Forecast/ World Bank. 22.10.2020. URL: <http://pubdocs.worldbank.org/en/478961602618430208/CMO-October-2020-Forecasts.pdf>
- 3 World Economic Outlook Update, October 2020 // IMF. 07.10.2020. URL: <https://www.imf.org/en/Publications/WEO>
- 4 Mid-term forecast of the Bank of Russia based on the outcome of the meeting of the Board of Directors on the key rate // Bank of Russia. 23.10.2020. URL: [http://www.cbr.ru/collection/collection/file/29374/forecast\\_201023.pdf](http://www.cbr.ru/collection/collection/file/29374/forecast_201023.pdf)

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the implementation of the OPEC+ deal by 95%; in February 2021 – 9.26 mbpd, which corresponded to the implementation of the deal by 93%; in March 2021 – 9.33 mbpd or 95% of the implementation of the deal.

Table 2 demonstrates the volume of oil production by Russia over 2021, as well as the volume of oil exports, domestic oil supplies for processing, transshipment through seaports of oil and petroleum products. It can be seen that all indicators still demonstrate a downward trend compared to the same period last year.

Table 2

### Dynamic of production, refining and export of oil by Russia

Indicator	January 2021		February 2021		March 2021	
	Mn t	% on January 2020	Mn t	% on February 2020	Mn t	% on March 2020
Oil extraction	43	-10.30	38.6	-13.80	43.34	-9.32
Oil export	18.7	-13.80	16.5	-21.10	17.70	-17.29
Primary oil refining at Russian refineries	22.8	-7.30	22.6	-8.60	24.49	-3.96
Transshipment of liquid cargo in Russian ports, of which:	34.5	-14.40	33.3	-16.70	34	-9.60
Crude oil	18.7	-18.00	18.1	-22.30	18.6	-12.70
Petroleum products	12.3	-11.50	11.8	-11.00	12.1	-6.20

Sources: Ministry of Energy of Russia, IPEM.

The forecast values of Russian oil production, domestic consumption and export volumes for 2021 are presented in Table 3.

Table 3


### Forecast volumes of production, domestic consumption and export of Russian crude oil

	Sources	2020	2021
Crude oil extraction, mn t.	Minenergo	512.76	-
	OPEC MOMR	520.01	520.50
	EIA STEO	516.08	523.45
Domestic crude oil consumption (consider constant = 2020), mn t	Minenergo	274.93	274.93
Export of crude oil (the difference between the volume of oil extraction and the volume of domestic oil consumption), mn t	Minenergo	232.37	-
	OPEC MOMR	232.37	245.57
	EIA STEO	232.37	248.51

Sources: Minenergo of Russia, OPEC MOMR, EIA STEO.

Forecasts of international organizations and the current dynamics of the global energy market evidence that there are risks of a decline in oil demand, associated, in particular, with the likely tightening of containment measures in a number of Asian countries in the wake of a new wave of coronavirus infection. The increase in morbidity and the corresponding introduction of restrictive measures can affect the mobility of the population and business activity in Q2 2021, and therefore the demand for energy resources, in particular, petroleum products. With due regard for the decisions taken at the last meeting of the OPEC+ participating countries on the gradual increase in production volumes

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by 1.2 mbpd. Until July 2021, large-scale vaccination of the population against COVID-19 can become one of the determining factors for maintaining the dynamic of the energy market recovery. If the majority of countries manage to quickly cope with the spread of the virus and its new variants, then we can expect an increase in the number of traffic and, accordingly, an increase in fuel demand. 

## 2. BALANCE OF PAYMENT IN Q1 2021

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*In Q1 2021, Russia's trade surplus reduced by almost one third compared to Q1 2020 due to growth in the total value of imports. Net capital outflows from the private sector decreased compared to the same period last year. This was mainly due to the growth of foreign banking assets and other sectors of the economy amid strengthening geopolitical risks, as well as the rapid recovery of the US economy. The Bank of Russia started buying foreign currency under the budget rule resulting in an increase in reserve assets in Q1 2021. At the end of Q1 2021, despite the relatively high oil prices and the improvement in the global economy, the ruble depreciated against the US dollar by 2.5%, which, most likely, resulted from tightening of geopolitical risks.*

According to the preliminary estimates of the balance of payments published by the Bank of Russia, the current account balance in Q1 2021 amounted to \$16.8 bn, which is 27% less than in the Q1 2020 (\$23.0 bn).

The trade balance of goods amounted to \$24.4 bn, which is 26.3% less (in absolute terms by \$8.7 bn) than in Q1 2020 (\$33.1 bn) (Fig. 1). Growth in the value imports of goods was mainly responsible for this decline from \$56.2 bn in Q1 2020 to \$63.1 bn in Q1 2021 (by 12.3%).

Such dynamics of imports is not typical for falling Russia GDP, declining real disposable incomes of the households and the ruble real exchange rate: thus, according to the Bank of Russia, the decline in the ruble real exchange rate against the US dollar in Q1 2021 against Q1 2020 reached 8%.<sup>1</sup> This circumstance can be explained first of all by the substitution of imports of services by imports of goods due to reducing the cost of travel and transport services: the demand for these types of services was redirected to increase purchases of pharmaceutical products and investment goods (machinery and equipment, vehicles, electronics).

A slight decline in the value of exports was observed along with the growth of imports, i.e. from \$89.3 bn in Q1 2020 to \$87.5 bn in Q1 2021 (by 1.8%). Such a stabilization of export supplies was due to growing export prices for ferrous metals, wheat and vegetable oil despite the decline in prices for hydrocarbons (except for natural gas) and the reduction in volumes of oil exports as a result of the OPEC+ agreements. In the future, the export of goods is likely to grow due to the rise in oil prices.<sup>2</sup>

1 On the impacts of forex volatility on trade refer to *Alexander Yu. Knobel*. Estimates of the demand function on the imports in Russia // *Applied econometrics*. 2011. No. 4(24). P. 3–26; *Alexander Knobel, Alexander Firanchuk*. Russia in the global exports in 2017 // *Russian economic developments*. 2018. No. 9. P. 17–21.

2 Please refer to *Alexander Yu. Knobel, Dmitry E. Kuznetsov*. Common factors in pricing policy of the Russian firms in export markets // *JOURNAL of the NEW ECONOMIC ASSOCIATION* // 2019. No. 1(41). P. 100–127.



## 2. Balance of Payment in Q1 2021

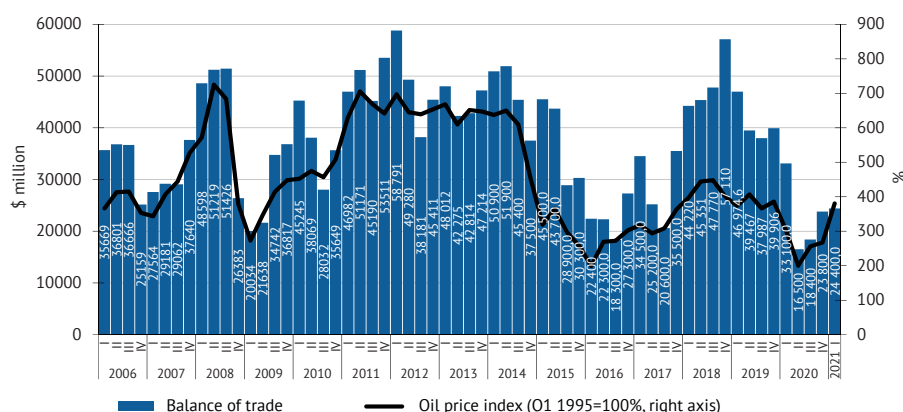


Fig. 1. Balance of trade and dynamics of oil prices

Source: Bank of Russia; IMF.

Table 1

### Change in average export prices and physical quantity of basic Russian export goods

	Share of commodity group in the value of Russian exports, %	Price in January-February 2021 \$/t	Price in January-February 2020 \$/t	Change in the average export price, %	Change in the supplies' volumes, %
Crude oil	22.5	376	443	-15	-18
Petrochemicals	15.5	369	461	-20	3
Natural gas*	11.2	171	155	10	7
Ferrous metals	6.0	493	422	17	17
Wheat and meslin	3.3	248	215	15	106
Coal	2.9	60	67	-10	0
Mineral fertilizers	2.2	225	217	3	36
Aluminium	1.2	1532	1792	-14	88
Copper	1.2	7358	5836	26	-21
Vegetable oil	1.1	1069	696	54	3
Commercial timber	1.0	268	243	10	-16
Liquefied natural gas**	0.7	65	100	-35	-54

\* price in \$ for thousand m<sup>3</sup>; \*\* price in \$ for a m<sup>3</sup>

Source: FCS, own calculations.

At the end of Q1 2021 the balance of trade in services amounted to - \$2.6 bn, which in absolute terms is 2.5 times less than the same indicator for Q1 2020 (-\$6.6 bn). Both exports and imports of services fell in Q1 2021 compared to Q1 2020, however, imports fell more in both relative and absolute terms. Exports decreased by 18% from \$13.5 bn to \$11.1 bn, and imports by 32% from \$20.1 bn to \$13.7 bn, mainly due to the actual break of traveling abroad. In the future, a deterioration can be expected in the balance of trade in services both due to a gradual recovery in tourism travelling and an increase in imports of transport and other services.

The balance of investment incomes improved in Q1 2021 against Q1 2020 by \$1.0 bn (from -\$0.7 bn to +\$0.3 bn), while the balance of labor remuneration deteriorated by \$2.0 bn (from -\$1.7 bn to -\$3.7 bn).

The gap in financial account amounted to \$15.6 bn in Q1 2021 (\$18.3 bn in Q1 2020). Net capital outflow in Q1 2021 was mainly caused by an increase in foreign financial assets by \$13.5 bn (in Q1 2020, foreign financial assets grew by

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only \$4.7 bn) and a decrease in foreign financial liabilities (\$-2.0 bn in Q1 2021 against -\$13.6 bn in Q1 2020).

The growth in foreign assets took place both due to operations in the banking sector and operations of other sectors, constituting \$6.5 and \$6.9 bn in Q1 2021 respectively (\$2.5 and 2.2 bn in Q1 2020). The amount of direct investments of other sectors transferred abroad increased by \$6.4 bn (\$0.4 bn in Q1 2020), and the size of the which was outgoing portfolio investments in Q1 2021 amounted to \$2.1 bn. (\$2.3 bn a year earlier); the value of other assets increased by \$3.1 bn (\$5.9 bn in Q1 2020).

The reduction in financial liabilities to non-residents was mainly due to the operations of the public sector. Thus, in Q 1 2021, foreign liabilities of government bodies decreased by \$3.2 bn (in Q1 2020, there was an increase of \$0.6 bn) due to a reduction in non-residents' investments in FLB. As of early April 2021, the share of non-residents in the FLB market decreased to 20.2%, while at the beginning of the year it was 23.3%, caused by the aggravation of the sanctions rhetoric regarding the purchase of the new state debt of the Russian Federation, growth of domestic political and geopolitical risks.

A reduction in foreign liabilities in Q1 2021 was also observed in the banking sector (-\$0.9 against -\$6.8 bn a year earlier). The change in foreign liabilities of other sectors in Q1 2021 in aggregate turned out to be zero: the inward foreign direct investment increased by \$4.7 bn (-\$4.1 bn in Q1 2020), foreign liabilities on portfolio investments decreased by \$2.7 bn (-\$2.2 bn in Q1 2020), while liabilities on loans and borrowings to non-residents decreased by \$2.2 bn (+\$1.4 bn in Q1 2020).

Consequently, the net capital outflow from the private sector in Q 1 2021 amounted to \$1.8 bn, which is significantly lower than in Q1 2020, when this indicator reached \$18.1 bn (Fig. 2). However, the net capital outflow of the banking sector in Q1 2021 evidenced \$7.4 bn (\$9.3 bn a year earlier). In the non-banking sector, the net outflow amounted to \$4.5 bn against \$8.8 bn in Q 1 2020.

The excess of the current account surplus over the capital outflow on the financial account was compensated by growth in international reserve assets in the amount of \$3.7 bn (\$5.0 bn in 2019). The accumulation of foreign exchange reserves is associated with the purchase of foreign currency by the Bank of Russia under the budgetary rule resumed on January 19, 2021. On the whole,

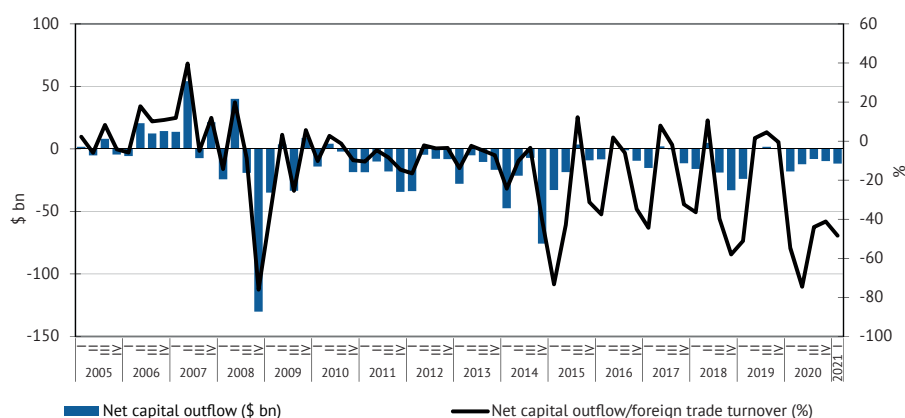



Fig. 2. Net capital outflow in banking sector in 2005–2021

Sources: Bank of Russia, own calculations.

## 2. Balance of Payment in Q1 2021

the volume of the foreign currency purchases by the RF Ministry of Finance in the domestic foreign exchange market in Q1 2021 evidenced about \$3.6 bn.

In Q1 2021, the exchange rate ruble vs dollar reduced by 2.5% up to 75.7 ruble/dollar. Despite the recovery of oil prices, the rhetoric of sanctions, including the ban for purchasing of a new RF state debt by American financial institutions, geopolitical tension, domestic risks, expectations of tightening of the USA FRS monetary policy, assisted to ruble devaluation. At Q1 2021 end, the fundamentally reasoned rate of exchange between ruble and dollar evidenced Rub 71–72, which means that ruble was underestimated by 5–6%.<sup>1</sup> Ruble can be appreciated during 2021 to this level with the current pace of today's tendencies in the global and Russian economies, however, only on the condition of de-escalation of the foreign policy tension. 

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<sup>1</sup> For further information please refer to *Alexandra V. Bozhechkova, Sergey G. Sinelnikov-Murylev, Pavel V. Trunin*. Factors of the ruble exchange rate dynamics in the 2000's and 2010's // *Voprosy Ekonomiki*. 2020. No. 8. P. 1–18.

### 3. DIGITAL RUBLE: RISKS AND BENEFITS

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*The concept of the emission and circulation of the digital ruble published by the Bank of Russia, suggests the active implementation of the intermediary functions between the end users and the digital ruble platform by credit institutions. In this regard, the risks of an outflow of deposits from the banking sector, strengthening of the regulator's role in the payment and financial sector, as well as a wide range of technological risks due to the need to build a new ramified payment system based on distributed ledger technology remain relevant. The concept of digital ruble consolidates the significant advantages of its circulation: reducing the costs of making payments and increasing the availability of financial services for individuals and businesses through the use of the offline transactions and smart contracts. To assess the balance of risks and benefits from using the digital ruble, the Bank of Russia plans a phased launch of a pilot project for its digital currency.*

In October 2020, the Bank of Russia released a Public Consultation Report on the “Digital Ruble” project.<sup>1</sup> The document was met with great interest by the professional community as well, and the Bank of Russia published the “Concept of the digital ruble” in April 2021 as a follow up of its discussion. The “Concept” discloses the principles of issuing digital currency by the RF Central Bank within the two-tier retail model.<sup>2</sup> Currently, the Bank of Russia has abandoned the use of the wholesale digital currencies model of the Central Bank (CBDC) with access provided exclusively to financial intermediaries, and the models of retail CBDC restricting the active participation of financial intermediaries at the opening of electronic wallets to clients and circulating the digital ruble. The selection of a retail two-tier model for the realization of digital ruble, where financial intermediaries play the role of settlement participants, reduces the risks for the existing two-tier banking system.

The model for the digital ruble emission (a new form of the Central Bank's obligation), presented by the regulator, involves opening of wallets by the Bank of Russia to financial institutions and the Federal Treasury. Opening of wallets to clients (individuals and businesses) using the digital ruble platform and their payment settlement will be carried out by financial institutions by way of fulfilling their respective customer orders.

After sending a client's request to a commercial bank to replenish digital wallet, the bank debits funds from the client's account and credits digital rubles from its wallet to the wallet of the client on the digital ruble platform. The platform will send the client a respective notification confirming that the

<sup>1</sup> Bank of Russia, “Digital ruble”. Report for public consultations”, October 2020.

<sup>2</sup> Bank of Russia, “Concept of digital ruble”, April 2021.

### 3. Digital ruble: risks and benefits

funds have been credited. The orders to transfer funds between two clients are realized in a similar way involving the credit institutions and the digital ruble platform. It is this model that is most likely optimal given the developed banking network in Russia, since it will allow to fully use the existing institutional infrastructure and established bank-client relations, and will also prevent a significant reduction of the banking sector involvement in the payment and financial system. However, the acquisition of digital rubles by bank customers in contrast to the transfer of funds from the term to demand deposits and current accounts, will result in a reduction in the balance sheets of commercial banks, diminishing their lending capacity.

At the same time, this model exempts the central bank from direct interaction with the end users of digital ruble (individuals and businesses) and disburdens the regulator of large-scale efforts related to opening and maintaining digital wallets, executing customer payment orders, identifying customers and performing procedures implied by currency legislation. Respective tasks will be solved by credit institutions. This format of fulfilling a new type of Central Bank obligation is also quite convenient for the end users, since it relies on the conventional interaction with commercial banks.

Such an active mainstreaming of commercial banks in the system of emission and circulation of the digital ruble raises a question as to what extent such activity will be economically justified for them. The most significant incentives for commercial banks to participate in the digital ruble project include the ability to maintain and strengthen relationships with existing customers, attract new clients, as well as receive income from fulfilling their instructions to open digital wallets and make payments. However, currently, there is no information available on who would bear the costs related to adaptation of the banking infrastructure to the digital ruble platform, as well as on the division of the tariff paid by customers for making payments using the digital ruble between the Bank of Russia and commercial banks.

The April concept of the digital ruble assumes the consolidation of its following competitive advantages over other payment methods:

1. Reducing the cost of payments, since the chosen model of realization assumes that the cost of transactions using the digital ruble will be “not higher than in the Fast Payments System.”<sup>1</sup> Payments will be billed according to uniform rules, making the use of digital ruble cheaper for making payments on average compared to the non-cash ruble.
2. Increasing financial access for economic agents due to both the possibility of making payments in digital rubles in the offline mode (which is relevant for territories with incomplete and/or unstable Internet coverage), and the ability to use add-ons to the digital ruble in terms of smart contracts.
3. Increasing competition in the banking sector due to the facilitated transfer of funds between different credit institutions using the digital ruble (assuming that there are no hard limits and restrictions on the amount and number of the funds transferred from one form of ruble to another).<sup>2</sup>

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1 Bank of Russia, “Concept of digital ruble”, April 2021.

2 We assume that with the help of mobile banking applications a client can transfer non-cash ruble savings into digital rubles, and then transfer digital rubles into non-cash rubles at another bank. This is possible, since the wallet of digital rubles will be available to the client synchronically in all applications of those banks that the client is served.

One of the main risks of issuing a digital ruble within the declared model is the outflow of liquidity from the banking sector. The launch of the digital ruble will result in a reduction in deposits of commercial banks, as the economic agents will transfer part of their deposits which they hold for making payments, into the digital ruble. Therewith, the lack of interest on the digital ruble neutralizes some of the potential risks and challenges. In particular, the digital ruble will not compete with time deposits and investment / savings instruments. The probability of a large-scale substitution of current accounts by the digital ruble is most likely low (at least at the first stages of its establishment), since many economic agents use now savings accounts with the interest paid on the balance. However, it is possible to withdraw and credit funds at any time.

Moreover, the system of private banks in Russia is marked as a whole by a fairly high level of trust on the part of the population in terms of settlements and payments, which will also prevent a large-scale outflow of demand deposits from the banking system.

The scale of the digital ruble emission was initially planned to be moderate. However, the net effect of the digital ruble introduction is not evident for the liquidity of banking sector. Despite the liquidity surplus in the banking sector, the Bank of Russia does not exclude a scenario suggesting an overflow of deposits to CBDC that may trigger a liquidity shortage.


A decline in the banking sector's passives could potentially result in a reduction in the scale of lending and/or growth in the cost of loans. An increase in interest rates on loans could theoretically cause banks to be forced to participate in riskier projects and, possibly, undertake the excessive risks. Consequently, investment and consumption of durable goods may decline.

Even though the corresponding effects are likely to be insignificant in a real sense, the reduction in the balance sheets of commercial banks also creates risks of disintermediation due to the outflow of deposits, i.e. reducing the role of credit institutions as financial intermediaries interacting with savers and borrowers.

Taking into account the possible shortage of liquidity in the banking sector due to the issue of the digital ruble, the Bank of Russia states that it will provide banks with additional liquidity in the required amount. However, the excessive dependence of commercial banks on the funds of the RF Central Bank can strengthen the role of the Bank of Russia as a stakeholder in the banking sector and the financial market.

Apart from risks of a liquidity shortage in the banking sector, the introduction of the digital ruble is associated with technological risks, taking into account the complexly organized two-tier system of its emission and circulation. This is about a possible lack of capacity of a distributed ledger for making payments, about risks to lose the confidentiality of user data, the complexity of implementing an offline mode of the digital ruble circulation, as well as the need to prepare technical infrastructure both on the side of the Bank of Russia and commercial banks and in favor of individuals and businesses. Herewith, the degree of reliability of the new payment platform of the Bank of Russia should be no lower than the payment systems and services currently operating in the country, while the commitment to resist computer attacks should be higher, representing a significant challenge. Another group of risks is concentrated in the legal aspect, since the emission of the digital ruble will require revision of the legislation.

### 3. Digital ruble: risks and benefits

Discussing the possible consequences of the digital ruble emission for monetary policy, two important points should be emphasized. First, the introduction of the digital ruble through the exchange for reserves of commercial banks and taking into account a decrease in the value of bank deposits will result in a reduction in the money multiplier (similar to an increase in the share of cash in the money supply). Reducing the multiplier will require adapting the models used in assessing the impacts of the monetary policy being pursued.<sup>1</sup> Second, slight easing of banks as financial intermediaries due to a reduction in the amount of deposits in the banking sector is fraught with a decrease in the efficiency of banking channels of monetary transmission. Note that by analogy with cash, RF Central Bank does not envisage lending to banks in digital rubles. The introduction of the digital ruble will also require the regulator to rely more on other channels (for example, the interest rate channel) and, in particular, strengthening the information channel of interaction with the market. 

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1 *Vadim O. Grishchenko*. Monetary multiplier in modern financial systems // Money and credit. 2017. No. 9. P. 10–17.