MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

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1. BALANCE OF PAYMENTS IN Q2 2024

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As of end Q2 2024, the current account surplus rose by 2.3-fold compared to Q2 2023 mainly on the back of a decrease in the value of imports and reduction of the balance deficit of primary and secondary income. In Q2 2024, the deficit of the financial account balance formed under the impact of the growth of residents' foreign assets and increase in non-residents' debt on outstanding settlements. These trends led to the ruble appreciation in Q2 2024, which was due to growth of net sales of foreign currency by Russian exporters, decrease in imports, preservation of tight monetary conditions, as well as sales of currency by the Bank of Russia within the framework of operations of the Ministry of Finance of Russia with the resources of the National Welfare Fund.

According to the preliminary assessment of the balance of payments released by the Bank of Russia, the RF current account balance in Q2 2024 amounted to \$18 bn, which is 1.3 times higher than the same indicator for Q2 2023 (\$7.7 bn). In the context of the current break down of the balance of payments published by the Bank of Russia, the structure of the current account can be described in terms of three main balances: trade in commodities, trade in services, and the balance of primary and secondary income.

The balance of trade in commodities in Q2 2024 came to \$34 bn which is 29% more (by \$7.7 bn in absolute terms) than the value of Q2 2023 (\$26.3 bn). The decisive role in this increase was played by the decrease in the value of imports of goods from \$77.1 bn in Q2 2023 to \$70.8 bn in Q2 2024 (by 8.2%) simultaneously with the stabilization of the value of exports, which increased by 1.4% from \$103.4 bn in Q2 2023 to \$104.8 bn in Q2 2024.

Such export dynamic is due to stable prices for the basic commodities of Russian exports (oil, gas, oil products, grain, coal, ferrous and non-ferrous metals) and the established redirection of limited export flows from the EU and other unfriendly economies to other countries.

The observed dynamic of imports of goods is due to the decrease in physical volumes of supplies because of difficulties in settlements since the beginning of the year and the weakening of the ruble as compared with the previous year. According to the data released by the Bank of Russia, the decrease in the index of the real Rb/US dollar exchange rate in H1 2024 versus H1 2023 amounted to 11.6% (in Q1 2024 versus Q1 2023 this decrease amounted to 16.5%), i.e. there was a significant weakening, which means a relative appreciation of import supplies.¹

¹ On the impact of exchange rate dynamic on trade, see: Knobel A.Yu. Estimation of import demand function in Russia // Applied Econometrics. 2011. No. 4 (24). P. 3–26; *Knobel A.Yu.*,

The balance of trade in services in Q2 2024 amounted to -\$9.5 bn, which in absolute value is 6.3% higher than the negative value of the balance of trade in services for Q2 2023 (-\$8.9 bn). In contrast to trade in commodities, there is a decline in services exports (mainly due to travel) from \$10.4 bn in Q2 2023 to \$9.9 bn in Q2 2024 (by 5%) and a slight increase in services imports (by 0.5%) from \$19.3 bn in Q2 2023 to \$19.4 bn in Q2 2024.

The balance of primary and secondary income continues (starting from 2022) to decrease steadily in absolute terms, while remaining negative. In Q2 2024, it amounted to -\$6.5 bn, which in absolute terms is 32% less than the same indicator in Q2 2023 (-\$9.6 b).¹ This being said, both income receivable (capital income receipts from abroad) and income payable (reduced withdrawal of income and repatriation of profits abroad, including due to restrictions on the cross-border movement of capital) decreased in Q2 2024. However, income payable decreased more significantly: income receivable decreased by \$2.6 bn in Q2 2024 compared to Q2 2023 (from \$12.7 bn to \$10.1 bn) and income payable by \$5.7 bn (from \$22.3 bn to \$16.6 bn).

In the coming quarters, owing to the stable level of prices for basic commodities of Russian exports, difficulties with repatriation of profits from Russia experienced by the foreign investors, restrictions by the EU and the US for counterparties of their jurisdictions and jurisdictions of neutral countries (secondary sanctions), the current account balance in 2024 will remain at a fairly high level exceeding the values of 2023 and being in the range of \$60–80 bn in annual terms.

The RF financial account is represented by aggregate data on net external assets and liabilities of all sectors of the economy.

In Q2 2024, the financial account balance, excluding reserve assets, amounted to \$16.7 bn, increasing 2.7-fold compared to Q2 2023 (\$6.1 bn). In Q2 2024, the balance of the financial account excluding reserve assets was formed under the impact of growth in foreign assets.

The growth of foreign assets (excluding reserve assets) in Q2 2024 reached \$17.3 bn, which is 1.6-fold higher than in Q2 2023 (\$10.9 bn). The increase in foreign assets may be explained by the growth of non-residents' debt on outstanding settlements on Russian exports.²

The liabilities of all sectors of the Russian economy to non-residents in Q2 2024 grew by \$0.6 bn, which is 8 times lower than in Q2 2023 (\$4.7 bn). This is due, among other things, to the accumulation of debts on declared but unpaid dividends in favor of non-residents from unfriendly countries.³

Russia's external debt increased by 1.1% to \$306.1 bn in Q2 2024. The external debt of banks and the Central Bank of the Russian Federation largely increased (by 7.7% in Q2 2024 to \$97.8 bn), as well as that of the general government (by 1.6% to \$32.3 bn). It should be noted that the share of non-residents in the OFZ market continued to decline (from 7.1% as of April 1, 2024, to 6.8% as of July 1, 2024), which corresponds to the level of July 2012. External liabilities of other sectors declined by 2.3% over Q2 2024 to \$176.0 bn. Decrease in the debt

Firanchuk A. Russia in global exports in 2017. // Russia's Economic Development. 2018. No. 9. P. 17–21.

¹ For reference: in Q2 2023 relative to Q2 2022, the absolute value of the negative balance of primary and secondary income also decreased by around 30%; in Q2 2022 relative to Q2 2021, the absolute value of the negative balance of primary and secondary income decreased by almost 40%.

² RF Balance of payments No. 2 (19), Q2 2024.

³ Ibidem.

1. Balance of payments in Q2 2024

of other sectors was driven by the reduction in liabilities on other credits and loans, including within the framework of direct investment.¹

Russia's reserve assets declined in Q2 2024 by \$1.3 bn (-\$1.4 bn in Q2 2023). This is mainly due to sales of foreign currency as part of operations with the National Welfare Fund (NWF). Nevertheless, the positive revaluation of international reserves in Q2 2024 exceeded their reduction owing to operations presented in the balance of payments; as a result, Russia's international reserves rose in Q2 by \$3.1 bn to \$593.5 bn.

It should be noted that in Q2 2024, the volume of operations of the Ministry of Finance of Russia on net sale of foreign currency in the domestic foreign exchange market amounted to Rb284.2 bn. Of these, the volume of foreign currency purchases within the framework of regular operations under the budget rule (in the amount of additional oil and gas revenues) in Q2 2024 amounted to about Rb417.3 bn² whereas the volume of adjustment³ of the volume of operations announced by the Ministry of Finance of Russia under the budget rule in the form of sales of foreign currency from the National Wealth Fund amounted to about Rb701 bn.

In H2 2024, the Bank of Russia plans to buy/sell foreign currency as part of regular transactions under the budget rule, adjusting the volume of operations disclosed by the Finance Ministry of Russia by the amount of currency sales in the amount of Rb1.8 trillion (Rb1.4 trillion – the difference between the volume of currency purchases deferred from August 10 to December 31, 2023 within the framework of the budget rule and the volume of expenditures of the National Wealth Fund to finance the budget deficit in 2023 outside the budget rule, Rb0.4 trillion, Rb0.4 trillion, and – the sale of foreign currency in the volume of net investment of the National Wealth Fund's assets). Currency sale will continue to support the ruble in H2 2024.

In Q2 2024, the ruble appreciated by 7.2% to Rb85.7 per USD, which is mainly due to the growth of net sales of foreign currency by the largest exporters (from \$35.4 bn in Q1 2024 to \$42.7 bn in Q2 2024), a decline in imports on the back of difficulties in settlements, the sale of foreign currency by the Bank of Russia within the framework of the operations of the Ministry of Finance of Russia with the resources of the National Wealth Fund, and the persistence of tight monetary policy.

In the context of the ruble exchange rate stabilization, on July 12, 2024, the requirement for mandatory sale of export proceeds by the largest Russian exporters was eased from 60 to 40%.⁵ This measure will remain in effect until April 30, 2025, and will continue to strengthen the ruble.

The imposition of sanctions on Moscow Exchange Group on June 12, 2024, triggered the suspension of exchange trading in the US dollar, euro and Hong Kong dollar. Nevertheless, the sanctions pressure did not have a significant impact on the ruble exchange rate dynamic. From June 13, 2024, the Bank of Russia sets the official exchange rates of the dollar and euro to the ruble

URL: https://www.cbr.ru/statistics/macro_itm/svs/ext-debt/

² Ministry of Finance of Russia, Information on the generation and use of additional oil and gas revenues of the federal budget in 2018–2024.

³ Regular transactions under the budget rule are adjusted on the balance of the following transactions: the difference between the amount of currency purchases deferred from August 10 through December 31, 2023, under the budget rule and the amount of NBF expenditures to finance the 2023 budget deficit outside the budget rule, and currency sales in the amount of net investment of NBF funds.

⁴ URL: https://www.cbr.ru/press/event/?id=18801

⁵ RF Government Decree of July 12, 2024, No. 953.

using information from bank reports and information from digital platforms of OTC trading. The regulator's press release notes that the OTC market data are representative for determining the exchange rate.¹

According to our estimates, if oil prices remain at the level of \$80-85/bbl, as well as taking into account the monetary policy pursued by the Bank of Russia and measures on the mandatory sale of foreign currency proceeds by the major exporters in 2024, the ruble exchange rate will average Rb85-95 to USD.

¹ URL: https://www.cbr.ru/press/pr/?file=638538857295023335SUP_MEAS.htm

2. OIL MARKET IN H1 2024

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Rising demand for hydrocarbons from the air transportation and petrochemical sectors will be another factor in addition to the extension of voluntary oil production cuts under the OPEC+ deal, which will keep oil prices at \$80–85/bbl by the end of 2024.

In H2 2024, it is expected to adjust the terms of the zeroing of the gasoline and diesel dampers, after which an increase in the price of one category will not deprive subsidy payments for the other.

OPEC+ oil production adjustment agreement

Ita The 36^{th1} OPEC and non-OPEC Ministerial Meeting resulted in a decision to extend the oil production volumes set at the previous ministerial meeting, and also presented the values of production levels estimated by three independent companies HIS, Wood Mackenzie and Rystad Energy, which will be achieved in 2024 by Angola, Congo and Nigeria (they will account for the bulk of the reduction): 1,110 t/bpd, 277 t/bd, 1,500 t/bpd, respectively.

At the end of the 37th Ministerial Meeting, it was decided to extend the current target oil production effective until the end of 2024 for the whole of 2025, but with minor changes that affected the UAE: the country was given the opportunity to gradually increase the authorized level of crude oil production by 300 t/bpd starting from January 2025. Commitments to voluntary cuts by 2.2 m/bpd made by some OPEC+ countries, including Russia and Saudi Arabia, from the beginning of 2024 for 6 months to balance the market were extended to Q3 2024, and voluntary cuts by 1.66 m/bpd made by the same countries from Q2 2023 were extended to the whole of 2025. *Table 1* shows the dynamics of oil production agreed at the ministerial meeting from June 2024 to December 2025, considering the approved changes.

Table 1
Oil production levels agreed at the 37th OPEC+ Ministerial Meeting in June 2024 – December 2025, thousand barrels per day

| | Countries* | Algiers | Iraq | Kuwait | KSA | UAE | Kazakhstan | Oman | Russia |
|-----|--------------------|---------|-------|--------|-------|-------|------------|------|--------|
| 4 | June- September | 908 | 4 000 | 2 413 | 8 978 | 2 912 | 1 468 | 759 | 8 978 |
| 027 | October | 912 | 4 018 | 2 424 | 9 061 | 2 926 | 1 475 | 763 | 9 017 |
| 7 | November | 917 | 4 037 | 2 436 | 6 145 | 2 939 | 1 482 | 766 | 9 057 |
| | December | 921 | 4 055 | 2 447 | 6 228 | 2 953 | 1 489 | 770 | 9 096 |

^{1 36}th OPEC and non-OPEC Ministerial Meeting concludes// OPEC. 30.11.2023. URL: https://www.opec.org/opec_web/en/press_room/7265.htm

| | Countries* | Algiers | Iraq | Kuwait | KSA | UAE | Kazakhstan | Oman | Russia |
|-----|--|---------|-------|--------|--------|-------|------------|------|--------|
| | January | 925 | 4 073 | 2 458 | 9 311 | 3 000 | 1 495 | 773 | 9 135 |
| | February | 929 | 4 092 | 2 469 | 9 395 | 3 047 | 1 502 | 777 | 9 174 |
| | March | 934 | 4 110 | 2 481 | 9 478 | 3 094 | 1 509 | 780 | 9 214 |
| | April | 938 | 4 128 | 2 492 | 9 561 | 3 140 | 1 516 | 784 | 9 253 |
| 2 | May | 942 | 4 147 | 2 503 | 9 645 | 3 187 | 1 523 | 787 | 9 292 |
| 202 | June | 946 | 4 165 | 2 514 | 9 728 | 3 234 | 1 530 | 791 | 9 331 |
| 7 | July | 951 | 4 183 | 2 526 | 9 811 | 3 281 | 1 536 | 794 | 9 371 |
| | August | 955 | 4 202 | 2 537 | 9 895 | 3 328 | 1 543 | 798 | 9 410 |
| | September | 959 | 4 220 | 2 548 | 9 978 | 3 375 | 1 550 | 801 | 9 449 |
| | October- December | 959 | 4 220 | 2 548 | 9 978 | 3 375 | 1 550 | 801 | 9 449 |
| pro | Allowable duction level 7th NOMMC) | 1 007 | 4 431 | 2 676 | 10 478 | 3 519 | 1 628 | 841 | 9 949 |

^{*} The table shows the OPEC+ countries that have made additional commitments to voluntarily cut oil production volumes.

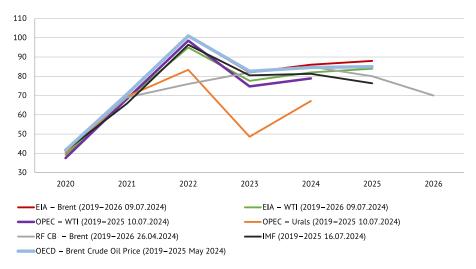
Source: MOMR June 2024.

International oil price projections

According to the EIA¹ projections, the Brent crude oil spot price will rise from \$82/bbl in June to \$89/bbl by the end of 2024 and to \$91/bbl in Q1 2025. The growth is associated with a slight decline in global oil reserves due to the extension of voluntary production cuts by OPEC+ countries. In Q4 2024, EIA assumes that supply growth from non-OPEC+ countries (at the expense of the US, Canada, Brazil and Guyana) will bring the global market back to moderate growth of inventories, the impact will continue in H1 2025.

According to OPEC's projection, an average price for Urals crude oil in 2024 will be around \$67.16/bbl. Growth in global oil demand in 2024 will remain at 2.2 m/bpd: for the OECD it will increase by 0.2 m/bd and for non-OECD countries by 2.0 m/bpd. Global oil demand is expected to increase by 1.8 m/bpd in 2025, with the US, Canada, Brazil and Norway, air transportation and petrochemicals sectors being the main drivers of liquid hydrocarbon supply growth.

International agencies' crude oil price forecasts are shown in Fig. 1.



Note. The forecast release date is shown in brackets.

Fig. 1. Crude oil price forecast, USD/barrel

Source: Own calculations on the data of EIA, OPEC, IMF, RF CB, OECD.

¹ Short-term energy outlook. Crude oil prices // EIA. 11.07.2024. URL: https://www.eia.gov/outlooks/steo/marketreview/crude.php

2. Oil market in H1 2024

The Bank of Russia has raised its forecast for the price of Urals oil in 2024 from \$80/bbl to \$85/bbl. In 2025, the regulator expects the oil price to reach \$80/bbl, and in 2026 - \$70/bbl.¹

The International Monetary Fund forecasts average oil prices of \$81.6/bbl in 2024 and \$76.38/bbl in 2025.²

Analysis of changes in legislation regulating the oil and oil refining industry

H1 2024 saw a number of changes in the legislation governing the Russian oil industry:

The ban on the provision and dissemination of official statistics on a number of products and economic activities (in particular, monthly, quarterly and annual statistics on oil, gas and gas condensate production) has been extended until April 1, 2025.³ This makes it difficult to analyze the current dynamics of key performance indicators of the Russian oil sector, given that statistics on exports of crude oil and petroleum products are not available from 2022.

Since May 2024, Rosstat has suspended publication of statistical data on gasoline production (the statistics on gasoline and diesel fuel for the period from May 21 to May 27, 2024 reflects only the dynamics of consumer prices for petroleum products, while for the previous week, from April 13 to April 19,4 data on production volumes were also provided) to ensure information security of the domestic market of petroleum products. The closure of statistics expands the potential for data manipulation, especially during the season of high demand associated with the vacation period in the summer months. For example, the volume of petroleum products output can be calculated indirectly through the data on the payment of damping surcharge published by the Russian Finance Ministry.

The tax maneuver in the oil industry has been completed: from January 1, 2024, the export duty rates for oil and oil products were reduced to nothing (instead, the mineral extraction tax rate increased), i.e. domestic prices for oil and oil products became equal to Russian export prices, which are equal to world prices minus the discount resulting from the sanctions. In fact, in 2019–2024, the mechanism of subsidizing Russian refineries was changed: domestic oil prices, which were understated by the export duty relative to world prices, were replaced by a reverse excise tax on oil feedstock (combined with a damping surcharge), which is almost unconditional (both profitable refineries, which do not need it, and unprofitable ones receive support), and also has no legally approved expiration date, which creates a basis for subsidizing the industry directly with transfers from the budget. Periodic adjustment of its parameters

¹ Medium-term forecast of the Bank of Russia based on the outcome of the Board of Directors meeting on the key rate // Bank of Russia. 26.04.2024. URL: https://cbr.ru/Content/Document/ File/160781/forecast_240426.pdf

World Economic Outlook Update, 30.01.2024 // IMF. URL: https://www.imf.org/en/Publications/WEO/Issues/2024/01/30/world-economic-outlook-update-january-2024

The types of products included: oil and gas mixture (well fluid); dehydrated, desalted and stabilized oil; unstable gas condensate. Activities included: production of crude oil and petroleum (associated) gas (APG); production of natural gas and gas condensate. For more details see: Edict of the Government of the Russian Federation of April 26, 2023. No. 1074-r // State system of legal information. 10.11.2023. URL: http://publication.pravo.gov.ru/Document/View/0001202304280072

⁴ Alifirova E. To ensure information security? Official statistics on gasoline output in Russia will not be available // Neftegaz.ru. 29.05.2024. URL: https://neftegaz.ru/news/gosreg/836155-dlya-obespecheniya-informatsionnoy-bezopasnosti-ofitsialnaya-statisti-ka-o-proizvodstve-benzina-v-ros/

(in particular, the indicative price, which has already been observed in 2019, 2021 and 2022) may lead to "manual" price management.

A temporary ban on gasoline exports was introduced (from March 1 to August 31, 2024) and the norm for diesel fuel sales at exchange trading was increased from 12.5% to $16\%^1$ to eliminate the shortage of petroleum products (in particular, 95 RON). The measure will make it possible to build up fuel stocks at depots, which should significantly reduce deliveries directly from refineries to gas stations before the start of high demand for fuel.

Extended until December 31, 2024, the ban on deliveries of Russian oil and petroleum products to foreign companies and individuals if the contracts contain a ceiling price.²

In the near future, it is possible that further amendments will be made related to damper parameters: the Finance Ministry and the Energy Ministry are coordinating details on changing the terms of zeroing the damper on gasoline and diesel fuel.³ In the current regulations zeroing is specified if the wholesale price of gasoline increases by more than 10% from the maximum of Rb58,650 rubles and 20% from Rb55,000 for diesel fuel. The discussed change assumes that the zeroing of the damper for gasoline and diesel fuel will be done separately, i.e. the price increase of one category will not deprive the subsidy payments for the other. The positive effect will be the market predictability for refineries. At the same time, the risk may be a decrease in the refineries' incentives to stabilize the growth of wholesale fuel prices.

According to the analysis of international agencies' projections, we can speak about the prospects for growth in global oil demand in 2024–2025 on the back of increased demand from Asian countries and Brazil, growth in air transportation and increased output in the petrochemical industry. At the end of 2024, the crude oil price is expected to be at the level of \$80–85/bbl, even taking into account the OPEC+ decision to gradually restore production volumes by abandoning voluntary supply cuts starting from Q3 2024.

I The government took measures to maintain a stable situation on the fuel market during the spring field work period // Government of Russia. 29.02.2024. URL: http://government.ru/docs/51012/. Fuel exports were authorized from mid-May through June, extended through July 31, 2024, by special permit.

² Executive Order of the President of the Russian Federation of June 13, 2024 No. 497 "On Amendment of Decree of the President of the Russian Federation of December 27, 2022 No. 961 "On the implementation of special economic measures in the fuel and energy sector in connection with the establishment by certain foreign states of a ceiling price for Russian crude oil and petroleum products." URL: https://www.garant.ru/hotlaw/federal/1724951/

³ Alifirova E. The Ministry of Finance opposed Rosneft's proposed moratorium on damper zeroing // Neftegaz.ru. 20.05.2024. URL: https://neftegaz.ru/news/gosreg/834385-minfin-vystupil-protiv-predlozhennogo-rosneftyu-moratoriya-na-obnulenie-dempfera/

3. CRYPTO MARKET IN H1 2024

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Cryptocurrency market capitalization in H1 2024 is not far from its historical maximums. Bitcoin is the main driver of the market, the growth of which is primarily due to the emergence of appropriate instruments on the U.S. exchange (Bitcoin-ETF). This event may lead to a structural change in the composition of cryptocurrency market participants in the medium term. Other cryptocurrencies show mixed dynamics. Significant growth in the first six months of 2024 is noted for the TON cryptocurrency, which grew more than twice and became the eighth in terms of capitalization.

As of mid-July, the cryptocurrency market capitalization stands around the \$2.2 trillion mark, which is 23% below the all-time high of \$2.86 trillion recorded in mid-November 2021 and 18.5% below this year's high of \$2.7 trillion observed in early April 2024 (*Fig. 1*), accompanied by the setting of new highs for Bitcoin's price (\$73,750). The cryptocurrency that is responsible for the main market rise is Bitcoin, whose capitalization in the total cryptocurrency market capitalization has grown by 3.7 p.p. (from 50.8% to 54.55%) since the beginning of the year and by 13.7 p.p. (from 40%) since the minimums. (*Fig. 1*) also shows that, for example, during the local peak in 2024, the capitalization of altcoins (all other cryptocurrencies except Bitcoin) was just \$1.23 trillion, or 48% of the total market capitalization, while in November 2021 it was \$1.61 trillion, or 56.5%, which also indicates the leading role of the most famous cryptocurrency in this growth cycle.

The rise in Bitcoin's capitalization in 2024 can be attributed to the commencement of Bitcoin trade in ETFs (exchange-traded fund, exchange-traded mutual fund), which opened opportunities to invest in the most famous digital currency to a wide range of investors directly through the existing exchange infrastructure, without the need for direct interaction with cryptocurrency.¹ Currently, the Bitcoin wallets of ETF issuers concentrate around 890,000 units of cryptocurrencies, which is around 4.5% of the total current supply of Bitcoin (about \$57 bn at an exchange rate of \$64,000 per Bitcoin).

It is possible that the launch of Bitcoin ETFs may lead to a structural change in demand for this investment asset, as, for example, happened with gold.² Thus, more than a thousand different institutional investors have disclosed

¹ Prior to the launch of the described spot Bitcoin ETFs, there were already Bitcoin future ETFs traded on CME, but with rather high fees, as well as other products similar in their properties to ETFs, but available only to qualified investors with large capital. Such an example is the Greyscale Bitcoin Trust Fund (GBTC), which also has converted into an ETF after the U.S. Securities and Exchange Commission approved Blackrock and Fidelity ETFs.

² See, for example, *Baur D. G.* Exchange-traded funds on gold-a free lunch? // FIRN Research Paper. – 2013.

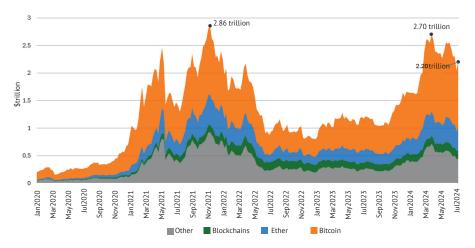


Fig. 1. Capitalization dynamic of the entire cryptocurrency market and its underlying components (Bitcoin, Ether, blockchains and all other), trillion dollars

Source: coinmarketcap.com

their positions in Bitcoin ETF.¹ Most of them are hedge funds and private equity funds, but among the holders can be found, among others, Morgan Stanely (position size – \$272 mn) and Wisconsin pension fund (\$163 mn). Ethereum ETFs were also launched on July 23 where investors placed more than \$600 mn over the first two days of trading.

It should be noted that despite its high capitalization, Bitcoin's turnover rate is quite low compared to that of stablecoins, whose capitalization is around \$156 bn (around 7% of the total market capitalization). Thus, since the beginning of 2024, Bitcoin's turnover on the blockchain amounted to \$1.5 trillion, while the largest stablecoins USDT and USDC amounted to \$14.3 trillion.² A similar ratio is observed in trading volumes: Bitcoin was traded on cryptocurrency exchanges for \$6.1 trillion in H1 2024, while USDT and USDC were traded for \$12.6 trillion.³

The Bitcoin dynamic in June 2024 is also interesting: the price of the largest cryptocurrency fell from \$69,000 on June 8 to \$56,000 by July 8. As it turned out, the price drop of almost 20% was triggered by the simultaneous sale of a large number of Bitcoins by three groups of market participants: miner Marathon Digital (1,400, or about \$98 mn); users affected by the 2014 hack of the Mt. Gox exchange, to whom the temporary manager of the exchange began distributing about 50,000 units of Bitcoin; and the Saxony branch of the German Federal Criminal Police Office, which sold 50,000 units of cryptocurrency seized earlier in a laundering case, for which it received \$2.9 bn. Thus, the sale of only 0.5% of Bitcoin's total supply during the month could be the reason for the loss of almost 20% of capitalization.

Despite the overall growth of market capitalization in H1 2024 by 32.2%, not all cryptocurrencies show positive dynamic even among the top ten by this indicator, which together account for more than 90% of the total market capitalization (*Table 1*). Cryptocurrencies XRP and Cardano are gradually losing ground in the top ten, despite their rather strong footing in the top 10 for 6 years so far.

 $^{1\}quad URL: https://www.ccn.com/news/crypto/bitcoin-etf-holders-list-btc-investors-sec-13f-filing$

² On data released by blockchain.com и visaonchainanalytics.com

³ Data from coinmarketcap.com

3. Crypto market in H1 2024

Table 1
Top cryptocurrencies by capitalization as of July 14, 2024

| Rank (as of 31.12.23) | Rank (as of 14.07.24) | Cryptocurrency | Category | Price, USD | Capitaliza- tion, USD bn. | Share, % | YTD, % |
|-----------------------------|-----------------------------|----------------------------|--------------------------|---------------|---------------------------------|-------------|-----------|
| 1 | 1 | Bitcoin | Cryptocurrency | 60 788 | 1 198.76 | 54.55 | 43.8 |
| 2 | 2 | Ether | Block- chain-platform | 3 244 | 389.99 | 17.75 | 42.2 |
| 3 | 3 | USDT (Tether) | Stablecoin | 1.0003 | 112.50 | 5.12 | 22.7* |
| 4 | 4 | [™] BNB | Block- chain-platform | 544.82 | 80.41 | 3.66 | 74.4 |
| 5 | 5 | S olana | Block- chain-platform | 147.62 | 68.51 | 3.12 | 45.4 |
| 7 | 6 | O USDC | Stablecoin | 0.9999 | 33.95 | 1.54 | 38.4* |
| 6 | 7 | ⊗ XRP | Cryptocurrency | 0.5229 | 29.18 | 1.33 | -15.0 |
| 15 | 8 | V TON | Block- chain-platform | 7.43 | 18.63 | 0.85 | 221.6 |
| 10 | 9 | Dogecoin | Memecoin | 0.1154 | 16.75 | 0.76 | 29.0 |
| 8 | 10 | Cardano | Block- chain-platform | 0.4323 | 15.51 | 0.70 | -27.2 |
| Other cryptocurrencies | | | | | 233.20 | 10.61 | -14.3* |
| | 2 197.38 | 100 | 32.2* | | | | |

Note. YTD (Year-to-date) – cryptocurrency price change from the start of the year (31.12.2023) to the date of table compilation (14.07.2024).

Source: coinmarketcap.com

The XRP currency was created in 2013 by Ripple Labs, a financial institution software developer with whom the U.S. Securities and Exchange Commission (SEC) has been in litigation since 2020 for the unregistered issuance of securities in the form of the XRP cryptocurrency, which is expected to end this summer.

The Cardano project created by one of the former Ethereum developers is a competitor of the latter as a cheaper and more efficient blockchain platform for creating smart contracts. Despite regular updates to the network and one of the highest levels of activity of the project's developers, the blockchain's popularity is still at a rather low level, which is reflected in the lack of the price growth of the cryptocurrency itself.

Other cryptocurrencies in the top ten by capitalization serving blockchain platforms have shown growth since the beginning of the year. Ether, which remains a major blockchain platform, grew 42.2%, while BNB, which is closely tied to the largest cryptocurrency exchange Binance, rose 74.4%. BNB's significant growth in 2024 is attributed to the end of the legal proceedings against the exchange last November, the departure of former CEO and founder Changpeng Zhao, who was sentenced to 4 months in prison for violating AML/CFT laws in April 2024, and the resumption of full operations in the European market. Solana often positioned as Ether's main competitor also rose 45.4%.

The strongest growth among the top ten cryptocurrencies since the beginning of the year has been demonstrated by TON, which is wrapped on the blockchain platform The Open Network, formerly known as Telegram Open Network. Currently, TON is gradually being integrated into Telegram with the active support of the management of the messenger itself. With the help of such projects as Notcoin and Hamster Kombat, the number of TON network users has grown significantly this year, and the cryptocurrency's price has more than

^{*} change in capitalization (for stablecoins, cryptocurrencies outside the top ten and the whole market).

doubled just since the beginning of 2024. For example, Hamster Kombat has attracted an audience of 239 million users in 3 months, and the daily number of active users exceeds 30 million.

Memecoins, created as a joke and most often without any functional load, remain popular in the cryptocurrency sphere. Dogecoin is the oldest memecoin with its price up 29% in 2024 on a market growth of 32.2%. Some analysts note that memecoin capitalization has tripled since the beginning of the year with an average return of 1300%.¹ The main platforms for launching memecoins are Solana and TON, which also contributes to the growth of these platforms.

Major stablecoins USDT and USDC have increased their capitalization by 22.7% and 38.4% since the beginning of the year, respectively. These two assets account for more than 94% of capitalization and over 96% of turnover of stablecoins, raising ongoing concerns about their reliability. USDC, a US Circle issuer licensed for money transfers in most US states, France, Singapore and the UK, has been actively cooperating with regulators and has not raised questions from them. Tether, the USDT issuer, on the contrary, faces constant accusations of terrorist financing, money laundering and sanctions circumvention.² In response to public pressure, the company has already cooperated more actively with regulators, blocked several wallets on the U.S. SDN list from moving USDT,³ and pledged to monitor its asset more closely.

To summarize, in 2024, the arrival of institutional investors with the help of new exchange instruments may significantly change the demand structure for digital assets, as well as raise the degree of market co-direction during periods of turbulence in traditional markets. Cryptocurrency market capitalization can be expected to gradually increase in H2 2024 and even exceed previous historical highs. In addition to the traditional regulatory risk, with the growing involvement of institutional investors, the risk of cryptocurrencies declining if the U.S. stock market declines on the back of overvaluation of large technology giants or for political reasons is also more pronounced.

¹ URL: https://cointelegraph.com/news/meme-coins-play-important-role-in-crypto

² The Tethered Corruption campaign was launched this year to highlight USDT as a tool for financing terrorism and sidestepping sanctions.

³ URL: https://www.rbc.ru/crypto/news/664759029a7947be0d9fa1f7

4. DYNAMICS OF HEDONIC PRICES ON THE SHORT-TERM RENTAL REAL ESTATE MARKET IN MOSCOW IN 2023 AND EARLY 2024

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The hedonic prices growth for short-term rentals in Moscow in 2023 and January 2024 was about 3 times higher than the growth rate of the all-Russian consumer price index and amounted to 28%. We attribute the main explanation for the outstripping growth of short-term rental prices to the effect of a low base and the demand recovery after the market stagnation observed in 2022.

In recent years, the Russian economy has faced a significant rise in prices for both consumer goods and real estate. It is of interest how these inflationary trends were translated into price dynamic for short-term housing rent (short-term rent here means daily rent of apartments), which is an important component of household expenditures.

Prices for short-term rentals are one of the factors affecting tourist demand. In recent years, the short-term rental market has grown significantly due to the development of aggregation platforms. According to the Yandex Travel service, the short-term rental market volume amounted to approximately Rb230 bn, which is about one third of the Russian hotel market volume, which volume is estimated at approximately Rb785 bn in 2023.¹ At the same time, the hotel market experienced a significant downturn and price stagnation in 2020–2022, but then commenced to recover at a steady pace. Forty four percent more tourists visited Moscow in 2023 against 2022.²

Short-term rental price dynamic can also be an indicator of long-term rental price movement, as property owner has a choice of renting out property for short-term or long-term, and the returns from these operations should equalize with the higher operating costs of short-term rentals and the higher risk premium from this activity due to the higher volatility of revenues due to demand volatility. Thus, the short-term and long-term rental prices dynamic should be closely linked. Prices for long-term rentals are poorly measurable. In turn, statistical agencies of different countries widely discuss the problem of considering the dynamic of rental prices in the calculation of the consumer price index. Accounting for housing prices is a relevant issue for central bank policy. The article by Isakov and Grishin³ notes that now there are differences between the actual share of housing costs and its estimation by statistical agencies, which, in turn, can form a discrepancy between inflation expectations

¹ URL: https://trends.rbc.ru/trends/social/64da4ab99a794783b12c6f7f

² URL: https://www.mos.ru/news/item/136044073/

³ Isakov A., Grishin P. Three ways to boost effectiveness of the Bank of Russia // Vedomosti. 2019. 27 December. URL: https://www.vedomosti.ru/economics/articles/2019/12/26/819821-tri-sposoba-banka-rossii

of the population and published inflation estimates. According to the authors, overcoming this discrepancy through more accurate accounting of housing prices will boost public confidence in the central bank. Also, monitoring the housing prices dynamic can help the central bank to pursue a policy aimed at preventing the development of bubbles in the property market.

When analyzing the dynamic of short-term rental prices, there is a serious problem of considering the heterogeneity of rented apartments, as the characteristics of property rented – its class, area and location – may change significantly from time to time. Thus, it is extremely important to consider the "quality" of rented property when analyzing the dynamic of housing prices. Differences related to the number of rooms, location, and additional amenities have a significant impact on the price. In the current analysis, hedonic regression, based on the representation of the price of a good as the sum of prices of its characteristics, is the main tool to distinguish between the fall or rise in prices due to changes in the "quality" of housing and changes in prices driven by other economic factors.

The use of hedonic regression for the price indices construction for residential real estate is common in many countries of the world. For example, Eurostat proposes the EU member states that since 2013 according to Regulation No. 93/2013, are obliged to publish house price indices, to calculate them using the hedonic approach.¹

The price dynamic for short-term rentals in Moscow is analyzed below. For the analysis we use the methodology² of hedonic price indices of the short-term rental market based on data from Airbnb data (up to March 2022 inclusive) and sutochno.ru platforms starting from December 2022. We use time-dummy method, imputation and adjacent period methods. The adjacent period method is considered as the basic approach due to its greater stability. In this approach, the index values are not recalculated with the addition of new points, as in the time-dummy method, nor does the index change when the reference period changes, as in the case of the imputation method. The analysis is based on data up to and including January 2024.

Fig. 1 presents hedonic indices constructed using the above methods, as well as the index of average and median prices for short-term rentals. The period of the 2018 FIFA World Cup is excluded from the graph, as this period saw abnormally high jumps in all indices, which make visual analysis difficult. All indices are summarized to the base period of August 2015 (the price of August 2015 is taken as 100%). Table 1 presents annual growth rates of the hedonic index of the adjacent period method, average and median price, as well as CPI.

Let us consider the general trends of price dynamic in the historical retrospective. In periods of near-target and low inflation (2017, 2019), there were insignificant changes in both the hedonic index and average and median prices. In 2016, there was a strong decline in prices. In 2020, the year of the COVID-19 pandemic and lockdowns, average and median prices fell significantly, with the hedonic index decreasing by only 0.5 p.p., which may indicate a withdrawal from the market due to its stagnation in the face of a significant reduction in tourism flows of renting out higher-end apartments. There were more apartments of

¹ Hill R. J., Trojanek R. An Evaluation of Competing Methods for Constructing House Price Indexes: The Case of Warsaw // Land Use Policy. 2022. Vol. 120. Article 106226.

² Bobrovskaya E., Polbin A., Fokin N. Hedonic Price Indices for Moscow Short-Term Rental Housing. Russian Journal of Money and Finance. 2024. Vol. 83. No 1. P. 77–103.

4. Dynamics of hedonic prices on the short-term rental real estate market

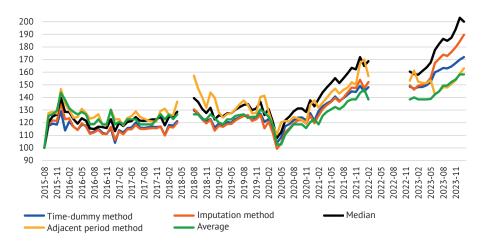


Fig. 1. Hedonic, median and average price indices on short-term rent in Moscow

Source: Own calculations.

lower "quality" on the market, as a result, average and median prices fell more strongly. However, already in 2021, the market rebounded and against the background of high (8.4%) inflation, the growth of hedonic, as well as average and median indices amounted to around 20%. A similar situation from 2020 was observed in 2022, which is explained by the reduction in tourist flows due to economic and non-economic restrictions.

Table 1
Growth rates of hedonic index constructed using adjacent period method, average and median prices as well as CPI, December-on-December, %

| | Adjacent period method | Average | Median | СРІ |
|--------------|------------------------|---------|--------|------|
| 2016 to 2015 | -14.0 | -11.0 | -9.3 | 5.4 |
| 2017 to 2016 | 0.1 | -0.8 | -2.7 | 2.5 |
| 2018 to 2017 | 4.8 | 11.3 | 0.0 | 4.3 |
| 2019 to 2018 | 3.0 | -2.4 | 3.1 | 3.0 |
| 2020 to 2019 | -0.5 | -4.4 | -7.7 | 4.9 |
| 2021 to 2020 | 22.6 | 24.4 | 19.2 | 8.4 |
| 2022 to 2021 | -2.9 | -8.2 | -3.6 | 11.9 |
| 2023 to 2022 | 23.3 | 3.5 | 14.3 | 7.4 |

Source: Own calculations.

The most up-to-date data on price dynamic in 2023 and early 2024 show accelerated growth in short-term rental prices. According to the hedonic index of the adjacent period methodology, which we consider as the most sustainable approach, short-term rental prices for 2023 increased by 23.3%, which is more than three times the growth rate of the nationwide consumer price index. At the same time, average prices for short-term rentals grew by only 3.5% over the period, indicating a change in the supply structure towards an increase in the share of cheaper lots, apartments of lower "quality". Median prices rose by 14.3%. In January 2024, the hedonic price index of the adjacent period showed an additional 2.8% increase in prices. As the main explanation for the outperformance of short-term rental prices, we see the effect of a low base and the recovery of demand after stagnation in the market in 2022. Supply-side factors – rising apartment prices and rising interest rates as an alternative cost of investing money – could also play a significant role.