

MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

No. 5(128) March 2021

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Monitoring of Russia's Economic Outlook

Monitoring has been written by experts of Gaidar Institute for Economic Policy (Gaidar Institute), Russian Presidential Academy of National Economy and Public Administration (RANEPA).

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1. REDUCING HOUSEHOLD SPENDING IS THE MAIN SOURCE OF ADDITIONAL CASH IN 2020

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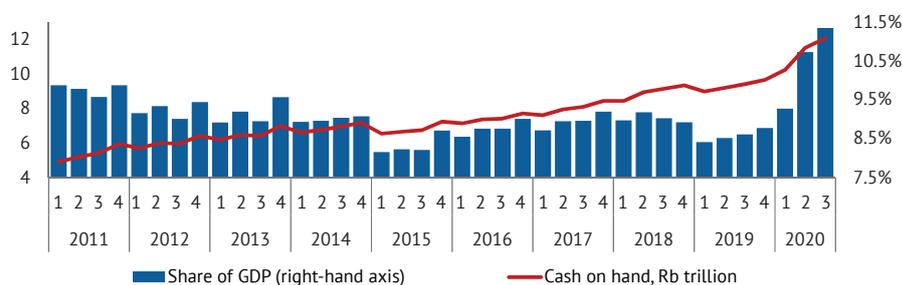
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In 2020, Russia saw a notable increase in the proportion of cash on hand in circulation. The main source of this additional amount of cash on hand was the reduction in household spending, which led to the non-return of cash previously put in circulation for transactions for the purchase of goods and services, as well hoarding of unspent income in cash as a precautionary measure in the face of increasing uncertainty.

Cash on hand is used for carrying out transactions and savings and is considered by a wide range of economic agents as a convenient means of payment (about 30% of the population prefers cash retail payments).¹ Rapid response to fluctuations in demand for cash on hand is an important task of the Central Bank in analyzing the situation on the money market and the risks of inflation

In 2020, Russia saw a marked increase in demand for real cash balances in the form of cash on hand. The increase in cash on hand in circulation for 2020 hit Rb2.9 trillion, or 30%. As of November 1, 2020, the ratio of cash on hand to money supply stood at 21.8%, which is the highest value since 2015. By the end of 2020, the share of M₀ in M₂ decreased slightly to 21.5%, but still significantly exceeded the level seen at the beginning of 2020 (18.7%). Also, in the second and third quarters of 2020, there was a significant increase in the ratio of cash on hand to nominal GDP – to 10.7% and 11.3%, respectively; these are the highest values for the last 10 years (Fig. 1).



Note. For cash, the value is indicated at the end of the quarter. GDP is calculated as an accrued total for the previous four quarters.

Fig. 1. Volume of cash in circulation in Russia in 2010–2020

Source: own calculations on data released by the Bank of Russia (Bank of Russia. Money supply (national definition. URL: <https://cbr.ru/statistics/ms/>).

1 Bank of Russia (2019). Attitude of the Russian population to cash // Sociological research of the Bank of Russia. 10 p.

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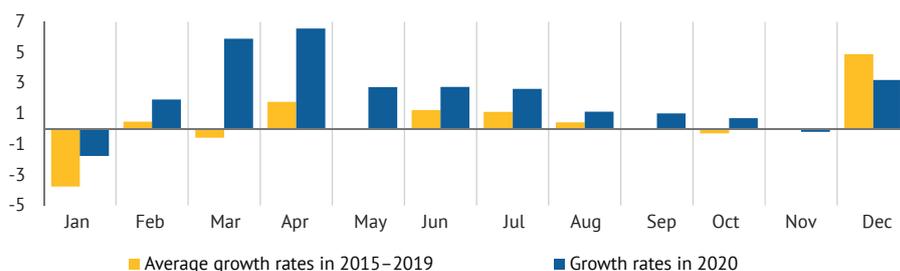


Fig. 2. Growth rates of cash in circulation (month-on-month), %

Source: own calculations on data released by the Bank of Russia.

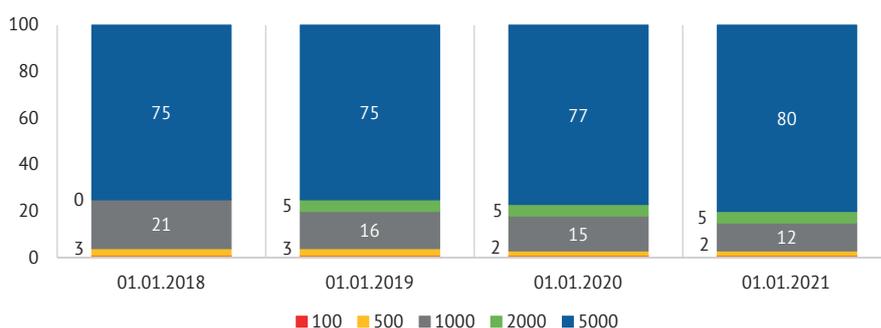


Fig. 3. Structure of cash on hand in circulation in 2018–2020: proportion of certain denominations in the total amount of banknotes, %

Source: own calculation on data released by the Bank of Russia (Bank of Russia. Cash circulation. URL: http://www.cbr.ru/statistics/cash_circulation/).

The demand for cash on hand is traditionally marked by seasonality: it increases during the New Year holidays and summer holidays and decreases in other months. In 2020, seasonality was disrupted due to the coronavirus pandemic: uncharacteristically high growth rates of cash on hand in circulation occurred in March–July (Fig. 2).

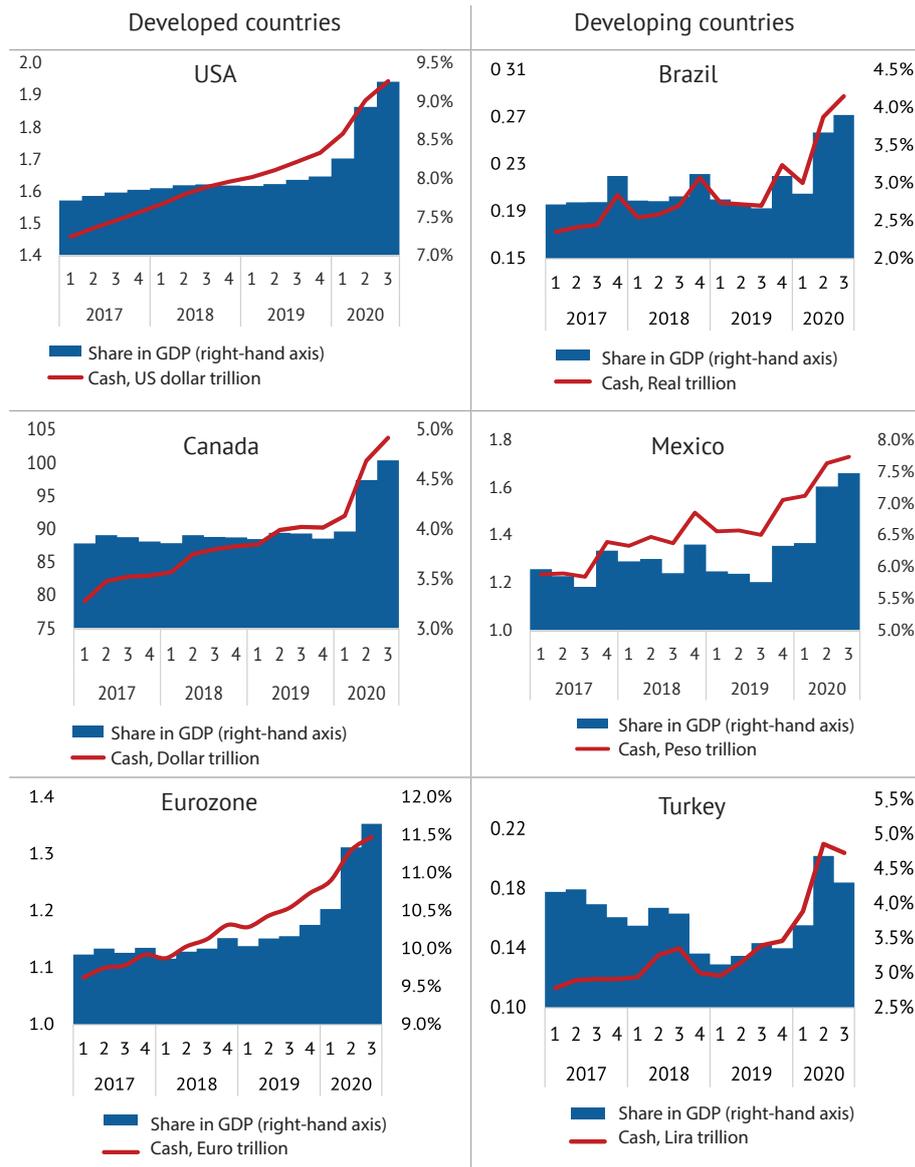
In 2020, the demand for large-denomination banknotes substantially increased: the share of banknotes with a denomination of 5,000 rubles in the total volume of cash on hand reached 80% (compared to 77% at the end of 2019) (Fig. 3). The trend towards an increase in demand for large-denomination banknotes commenced in 2019, which indicates the demand for cash on hand for the savings purposes, among the reasons for which we can single out a decrease in interest rates on deposits and a slowdown in the rate of depreciation of money in the wake of inflation deceleration.

The sharp increase in demand for cash on hand observed in 2020 was not exclusively a Russian phenomenon. As demonstrated in Fig. 4, the 2020 crisis triggered an increase in demand for cash on hand in both developed and developing countries: the volume of cash on hand in circulation increased by 35% in Brazil, 23% in Mexico, 21% in Turkey, 16% in Canada, 15.2% in the United States, and by 11.5% in the euro area (December 2020 to December 2019). In addition, the ratio of cash to GDP increased markedly in all countries.

The increase in cash on hand demand was primarily owing to the precautionary motive, which is common to crisis periods.¹ In particular, a similar

¹ Ashworth J., Goodhart C. Coronavirus panic fuels a surge in cash demand // VOX CEPR Column. 2020. P. 4.

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Note. For cash, the value is indicated at the end of the quarter. GDP is calculated as an accrued total for the previous four quarters.

Fig. 4. Dynamic of cash in circulation worldwide in 2017–2020

Source: own calculations on data released by central banks and IMF (IMF. IMF data – Gross domestic product, domestic currency, nominal, quarterly. URL: <https://data.imf.org/regular.aspx?key=62771448>).

growth rate of cash on hand in circulation was observed in the United States and the Eurozone during the global financial crisis of 2008–2009. The difference in 2020 lies in the dynamic of correlation of cash on hand to deposits: if in 2008 it increased, then in 2020 it even decreased in a number of countries (for example, in the United States, Canada and the United Kingdom). This is owing to the fact that then the financial crisis was marked by large-scale issues in the banking sector and a decline in public confidence in banks, the flight from deposits to cash. The current crisis is more associated with a reduction in current consumption and an increase in savings in both cash and non-cash forms. Having said that, the situation in the banking sector in most countries remains stable on the back of a substantial easing of monetary and fiscal policies.

In 2020, there was a paradoxical situation: a surge in cash on hand demand coupled with a reduction in its use for transactions.¹ The contraction in transaction volume is triggered by the restriction of household consumption and spending during the lockdown period, as well as public concerns about the spread of the virus through banknotes.² The increase in cash in circulation is due to the delay in its withdrawal at several stages of the circulation cycle: cash on hand was held by the population in case of unforeseen circumstances as a means of saving and an emergency means of payment; some additional cash was held by retailers; in response to the behavior of the population and retailers, banks replenished their cash reserves in bank tills. In such a situation, it is the behavior of the population, motivated by caution in the face of uncertainty, that is regarded as a key factor in the increased cash demand.

To analyze the possible causes and factors of the growth in cash demand in Russia, let's take a closer look at the changes in the structure of income, spending and savings of the households in 2020. In general, an increase in the amount of cash in circulation can occur in the economy through the following channels: withdrawal of money from bank accounts (closure and withdrawal of deposits, withdrawal of money from current accounts through bank cash desks or through ATMs); receipt in cash of wages and other income and payments; sale of foreign currency; increase the scale of cash transactions by legal entities (primarily SME companies and individual entrepreneurs).

In 2020, deposits of both individuals and legal entities continued to grow, but mainly at the expense of funds on current accounts and demand deposits (*Fig. 5*). The volume of ruble deposits on demand and funds on current accounts of individuals increased by Rb3.3 trillion (time deposits decreased by Rb1.7 trillion), and of legal entities and the state increased by Rb3.9 trillion. (time deposits in rubles declined by Rb0.7 trillion). Similarly, the growth in the volume of foreign currency deposits was achieved at the expense of the most liquid funds: the funds of individuals in foreign currency accounts went up by \$8.7 billion (time deposits decreased by \$ 13.1 bn); liquid funds of legal entities and the state increased by \$14.7 bn (time deposits in foreign currency increased by merely \$4.6 bn).³

Thus, during 2020, there was a change in the structure of deposits maturity of both individuals and legal entities and the state in favor of the most liquid, however there was no large-scale withdrawal of funds from current accounts (both in rubles and in foreign currency) in cash. The conversion of time deposits into demand deposits and funds in current accounts could also occur due to the opening of escrow accounts for the purchase of real estate and for the purpose of brokerage operations. During 2020 the volume of corresponding liabilities of credit institutions increased by Rb1.1 trillion and Rb0.53 trillion, respectively. At the same time, the population withdrew foreign currency from banks in the equivalent of around \$4.4 bn (Rb316 bn at the average annual exchange rate of the ruble to the dollar), part of which could have been converted into cash rubles.

The settlement accounts of individual entrepreneurs may be a feasible source of additional cash. According to *Fig. 6*, the balances on the ruble accounts of individual entrepreneurs in the period from January to May 2020 dropped by

1 Bank of England. Cash in the time of Covid // Bank of England Canada Quarterly bulletin. No. 4. 2020. P. 18.

2 Auer R., Cornelli G., Frost J. Covid-19, cash, and the future of payments // BIS Bulletin. No. 3. 2020. P. 9.

3 The value of funds on the accounts of credit institutions in US dollars is calculated at the exchange rate as of January 1, 2020 and January 1, 2021, respectively.

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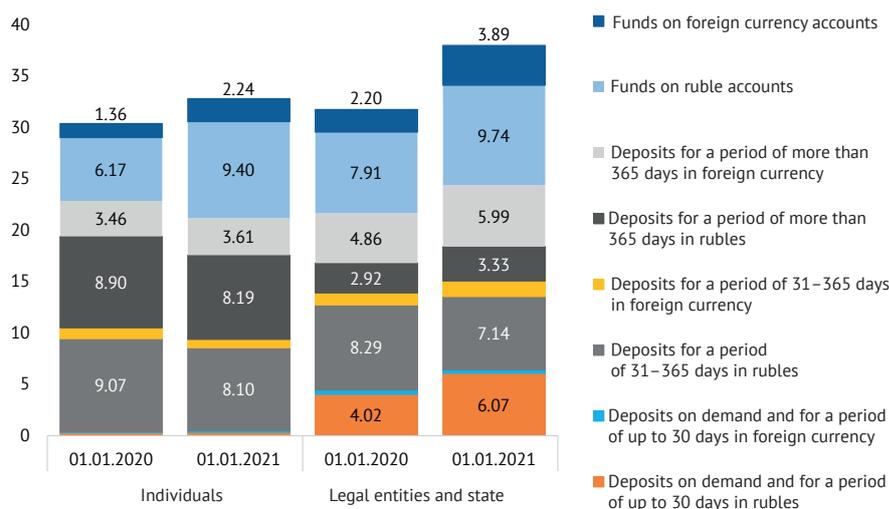


Fig. 5. Change in the structure of funds of individuals, legal entities and state of the credit institutions accounts during 2020, Rb trillion

Source: own calculations on data released by the bank of Russia.

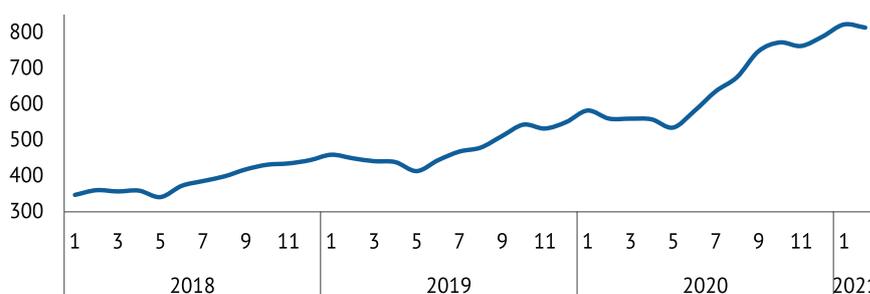


Fig. 6. Funds on settlement accounts of individual entrepreneurs (at the beginning of the period), Rb bn

Source: own calculations based on data released by the Bank of Russia (Bank of Russia. Statistical indexes of the banking sector of the Russian federation 2021. URL: http://www.cbr.ru/statistics/bank_sector/review/).

Rb47.6 bn. However, a similar decrease in the value of current accounts was observed in the first months of the previous years. Thus, in Q3 and Q4 the growth in the volume of account balances resumed and at a higher rate than in 2019. Thus, these accounts were not a significant source of additional cash in circulation.

Another source of additional cash for enterprises was probably the change in transfer of cash receipts from the cash registers of enterprises to banks obtained from the sale of goods and the sale of paid services. According to the Bank of Russia, in April-July, there was a decrease in the volume of revenue collection by retail enterprises (from Rb3.1 trillion in the Q2 2019 to Rb2 trillion in Q2 2020).¹ The decrease in the volume of cash collection was also owing to a reduction in the volume of trade turnover and the provision of paid services to the population (from Rb13 trillion Q2 2019 to Rb10.4 trillion in Q2 2020).²

1 Bank of Russia (2020). The Report on the monetary policy // The Bank of Russia publication. No. 3 (31).

2 UISIS. Retail sales turnover. URL: <https://www.fedstat.ru/indicator/31260>; UISIS. Volume of paid services rendered to the population. URL: <https://www.fedstat.ru/indicator/57788>

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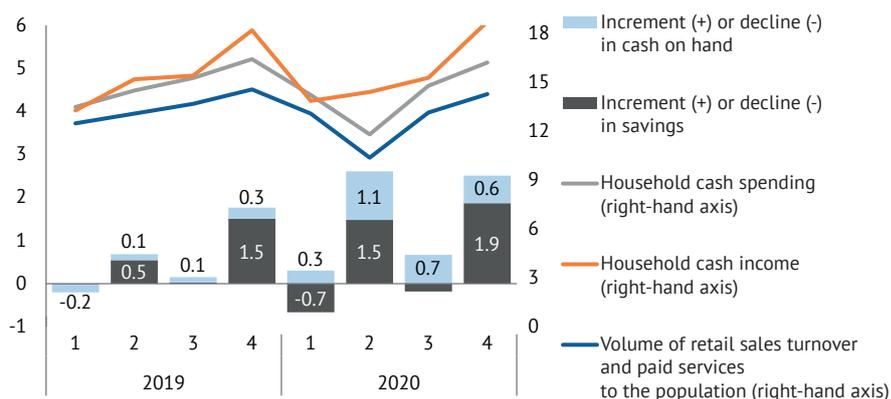


Fig. 7. Pattern of use of household cash income and retail sales turnover and paid services, Rb trillion

Source: own calculations on the basis of data released by the Federal Service of State Statistics (Federal Service of State Statistics. Living standard. URL: <https://rosstat.gov.ru/folder/13397?print=1>) and Unified Interdepartmental Statistical Information System (UISIS. Retail sales turnover. URL: <https://www.fedstat.ru/indicator/31260>; UISIS. Volume of paid services. URL: <https://www.fedstat.ru/indicator/57788>).

The current income of the population is another source of additional cash on hand. During 2020, the population from its from current income deposited Rb2.5 trillion on bank accounts and savings deposits and kept Rb2.7 trillion as cash (Fig. 7). The increase in cash on hand volume was the highest since at least 2013, and the increase in savings – since the end of 2015. The reason for hoarding cash on hand was the reduction in spending of households to Rb11.8 trillion in Q2 2020 (compared to Rb14.5 trillion a year earlier). The increase in savings according to the Rosstat statistics of income and spending of households is consistent with the above-mentioned increase in retail deposits according to the statistics of the Central Bank of the Russian Federation for 2020 (Rb2.3 trillion), and the increase in the volume of cash on hand explains 94% of the increase in the monetary aggregate M0 and is consistent with the statistics of the regulator on a quarterly basis.

It is critical to underscore that the volume of cash withdrawals through ATMs using bank cards did not differ in 2020 from the volume of transactions in the previous years (Fig. 8), i.e. these transactions themselves did not stand out as a factor in the growth of cash in circulation.

Accordingly, the increased demand for cash on hand seen in 2020 most likely stems from the behavior of households, which has increased the demand for cash on hand on the back of high uncertainty, fears of restrictions on visiting bank branches or access to ATMs. Having said that, the main source of additional cash on hand was not the withdrawal of funds from deposits, but the reduction in cash expenses and hoarding of unspent cash in the hands of the population. Note that a marked part of citizens continues to receive income (salary, pension, social benefits, etc.) in cash: according to a survey conducted by the Bank of Russia, the share of such recipients was 17% in 2019.

In the medium term, we may expect the normalization of demand for cash. As the epidemic recedes and restrictions are lifted, uncertainty decreases and the incentive to accumulate hoarding cash on hand due to the precautionary motive weakens. At the same time, the volume of public spending is restored.

Meanwhile, the national payment system is rapidly developing in Russia, and modern financial technologies for making non-cash payments for goods and

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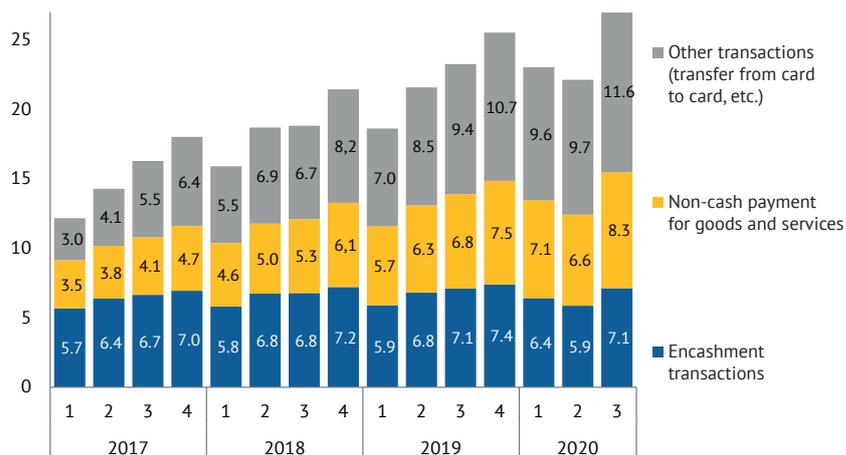


Fig. 8. Structure of transactions conducted with debit and credit cards issued by credit institutions and Bank of Russia, Rb trillion

Source: own calculations on the basis of data released by the Bank of Russia (Bank of Russia. Statistics of the national payment system. URL: <https://cbr.ru/statistics/nps/psrf/>).

services are gaining popularity. As the Bank of Russia's monetary easing cycle ends, it is expected to stabilize (and probably even grow somewhat) interest rates on deposits and the return of the attractiveness of bank savings, as well as further expansion of investment of the population on the financial markets. It is important that the share of cash in the money supply in Russia remains quite high compared to other countries (21.6% in Russia, 18% in Mexico, 7.7% in Brazil, 5.2% in Turkey), although it has been declining over the past 20 years (36% in 2001, 26% in 2010). Thus, in the absence of new negative shocks and quarantine restrictions already by the end of 2021, the share of cash in M_2 and in GDP may decrease to the level of 2019 – early 2020. 

2. CORPORATE LENDING IN 2020: GROWTH AND STABILIZATION

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In H1 2020, Russian banks notably increased the volume of corporate lending. This was facilitated by an increase in demand for borrowed funds from enterprises due to a drop in revenue; regulatory measures of the Central Bank that stimulate soft lending; a drop in interest rates as a result of monetary policy easing conducted by the Central Bank; and the accumulated liquidity by the banking sector. In H2 2020, as the economic situation was back on track, the pace of lending declined and began to match the level of 2019. Risks for the banking sector remain due to increased uncertainty about the possible spread of the pandemic, price volatility in the oil market, and the unstable nature of the corporate sector recovery.

As of January 1, 2021, the total corporate debt¹ before Russian banks was worth Rb 44.8 trillion. The growth in 2020 totaled Rb 5.8 trillion, or 14.8%. A year earlier, the corporate loan portfolio of Russian banks for the same period increased by merely Rb 1 trillion, or 2.6% to Rb 39 trillion. Thus, the growth rate of corporate lending markedly exceeded the 2019 indexes.

The ruble portfolio of corporate loans has grown by 11.4% since the beginning of 2020 and amounts to Rb 33.1 trillion, or 74% of the total corporate debt. A year earlier, the growth of the ruble portfolio was 8.2%, and its share in the total loan portfolio stood at 76.3%.

The foreign exchange portfolio in the past year grew primarily owing to changes in the ruble exchange rate, an increase of 25.5% as of January 1, 2021. In 2019, due to the strengthening of the ruble, this index dropped by 12.9%.

The term structure of the loan portfolio has undergone some changes. In the ruble portfolio, the share of short-term loans (up to 1 year, including loans on call) at the beginning of 2020 was approximately 75.8% of the total volume, in December this index fell to 60.8%. The structure of the foreign exchange portfolio was similar: the share of short-term loans denominated in dollars decreased from 69.6% at the beginning of 2020 to 54.6% in December; the most sizable decrease was in euros – from 71.9% to 28.4%.

Against the backdrop of a significant drop in bank interest rates on loans and a significant share of soft loans with a reduced rate in bank portfolios, bank interest income from corporate lending decreased. At the end of 2020, the interest income from the provision of loans to non-state commercial organizations totaled Rb 1,895.7 bn, the corresponding index at the end of 2019 was slightly higher – Rb 2,139.8 bn. Thus, the decrease for 2020 made 11.4% (in 2019, these

¹ Including non-financial, financial institutions (other than banks), individual entrepreneurs and enterprises belonging to non-residents (other than banks).

2. Corporate lending in 2020: growth and stabilization

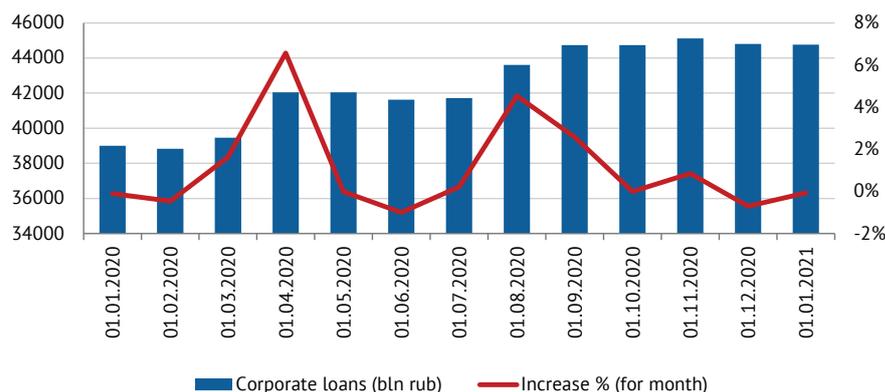


Fig. 1. The corporate lending dynamic in 2020

Source: "Statistical indexes of the banking sector of the Russian Federation" (Internet version) / Bank of Russia. URL: https://cbr.ru/banking_sector/statistics/

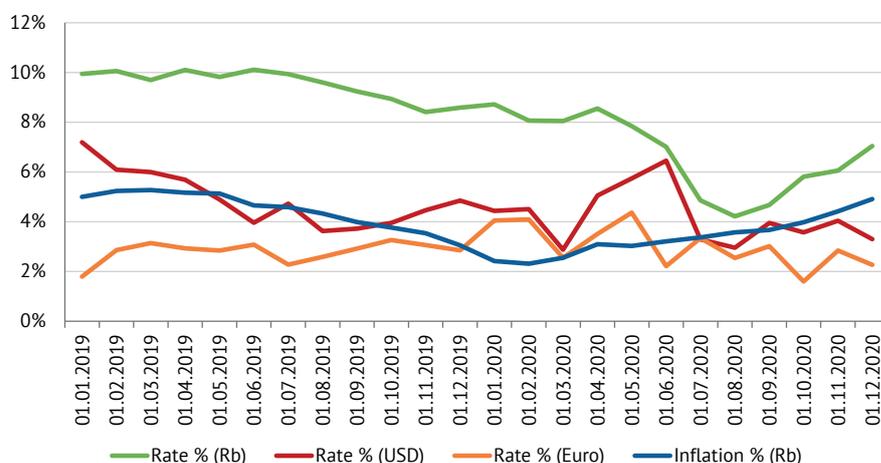


Fig. 2. Rates on corporate lending market and inflation* (from 6 months to a year)

* Inflation is calculated for 12 months including the current months.

Source: Bank of Russia. URL: https://cbr.ru/statistics/bank_sector/int_rat/

revenues increased by 2.2%). Meanwhile, the growth of fee income on originated loans continued: for the year, the increase was 15.1% (for 2019, the increase was 72.1%).

Short-term pro-inflation risks at the beginning of the pandemic had almost no negative impact on the cost of lending in the ruble segment. A slight increase was recorded in April during the period of self-isolation. However, in the following months, as inflation expectations stabilized and as a result of the Central Bank key rate cut, interest rates went down steadily, reaching an all-time low. By the end of the year, there was a slight increase. In the foreign exchange segment, rates were subject to fluctuations due to the instability of the foreign exchange market, however, a downward trend in rates also took place.

The corporate loans structure has not changed significantly. Manufacturing industries are the leaders in terms of debt (25.4% of the total loan portfolio of Russian banks). Real estate transactions account for 17.1%, wholesale and retail trade – 9.8%, agriculture – 6.2%, mining and quarrying sector – 5.9%.

At end-2020, the above-average rates were recorded in the extractive sector (an increase of 33.9% since the beginning of the year), as well as in the field of

real estate transactions (21.0%). The decrease was recorded in the wholesale and retail trade (-9.8%), manufacture of machinery and equipment (-7.8%), manufacture of means of transport (-7.6%).

Despite the measures taken by the Central Bank to support enterprises in terms of soft lending to vulnerable industries, many areas of activity experienced serious difficulties in attracting bank loans and were forced to reduce borrowing. As of January 1, 2021, 26 OKVED-2 codes (32.1% of all activities) exhibited a decrease in bank loan debt. The most substantial drop was recorded in the OKVED-2 codes “65 - Insurance, reinsurance, activities of non-state pension funds, except for mandatory social security” (a decrease of 82.1% relative to the debt at the beginning of the year), “53-Postal and courier activities” (a decrease of 62.4%), “74 - Professional scientific and technical and other activities” (a decrease of 55.4%).

The highest growth rates of accounts payable were recorded in the codes “09 - Provision of services in the field of mining” (an increase of 284.7%), “78 - Employment and recruitment activities” (an increase of 236.8%), “90 - Creative activities, activities in the field of art and entertainment” (an increase of 205.3%).

As of January 1, 2021, the level of past-due debt amounted to 7.1% of the total volume of lending. A year ago, this index also stood at 7.1%, however, it is impossible to conclude that the quality of the loan portfolio is stable, such stability is largely ensured by the introduction of a moratorium on bankruptcy, by the process of restructuring credit debt and provision of credit holidays.

According to information¹ obtained from 33 credit institutions, in the period from March 20, 2020 to January 1, 2021, the volume of restructured loan debt (including SME entities in the amount of Rb 853.5 bn) exceeded Rb 6.2 trillion, or 13.9% of the total bank portfolio. According to preliminary estimates, about half of this debt can be of a problematic nature, which will manifest itself as the restrictive measures are lifted, including after the end of credit holidays and delays in repaying interest and principal on loans

Another characteristic of the quality of the loan portfolio is the level of loan collateral. In 2020, as for banks loan portfolio as a whole, collateral grew very markedly: the volume of securities accepted as collateral went up by 1.9%; property accepted as collateral for placed funds, except for securities and precious metals moved up by 22.9%; precious metals accepted as collateral for placed funds – by 37.7%; bank guarantees and guarantees – by 8.6%. The total amount of collateral for loans and other placed funds at the end of last year amounted to around Rb 70 bn.

In early 2021, the President of Russia approved the launch of a new soft lending program “FOT 3.0”, which provides loans to micro, small and large enterprises from the hardest hit industries during the pandemic at a rate of 3%. During the H1 2020, borrowers will be exempt from payments on the principal amount of the debt and interest payments. It is assumed that about 75 thousand enterprises (about 15% of the total number of borrowers) will be able to use the loans.

Also, a new procedure² for granting subsidies from the federal budget to banks to compensate for lost income on soft loans has been established for

1 URL: https://cbr.ru/Collection/Collection/File/31944/drknb_15_2021.pdf

2 Resolution of the Government of the Russian Federation No. 279 of 27.02.2021 “On Approval of the Rules for Granting Subsidies from the Federal Budget to Russian Credit Organizations to Compensate for their Lost Income on Loans Issued in 2021 to Legal Entities and Individual Entrepreneurs for the restoration of Entrepreneurial activity”.

2. Corporate lending in 2020: growth and stabilization

2021. The government will subsidize soft loans for legal entities and individual entrepreneurs to maintain employment. The subsidies will cover credit agreements concluded from March 9 to July 1, 2021 for a period of no more than 12 months, for the business activity recovery. To receive the subsidy, one must have a credit rating of at least "A - (RU)" according to the classification of the rating agency ACRA (JSC) or "ruA-" according to the classification of the rating agency Expert RA JSC, or proof of participation in the programs of the joint-stock company "Federal Corporation for the Development of Small and Medium-sized Enterprises".

In the coming months, with a moderate growth in the total portfolio of corporate loans, the threat of increasing risks of insolvency of enterprises will remain. However, despite the concerns about the debt problem, there are no particular reasons for the deterioration of the situation in the Russian banking sector. Most of the potentially non-performing loans are secured by collateral and guarantees, as well as by setting up reserves for potential losses. Nevertheless, it is possible that the problems of certain banks will increase. 

3. US STIMULUS PLAN RAISES INFLATION EXPECTATIONS (review of financial markets from January 16 through March 15, 2021)

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The expansion of the US government economic stimulus package has raised concerns about accelerating inflation and rising asset values not only inside the country, but throughout the world. In the medium term, the Russian economy and financial market may benefit from climbing US budget spending. The expensive anti-crisis measures may push up prices for oil and other raw materials and, accordingly, produce an increase in the value of shares issued by Russian companies. However, this effect is expected to be temporary.

Within less than 2 months, some significant shifts have taken place in the US fiscal sphere, initiated by the new administration. In particular, on March 11, 2021, the American Rescue Plan Act was passed, which provides for economic relief measures totaling \$1.9 trillion, in addition to federal budget allocations for that purpose in March amounting to \$1.7 trillion, and \$0.9 trillion allocated in December 2020. The new stimulus package has raised fears among many prominent economists about its impact on inflation. Thus, according to eminent economist and former US Treasury Secretary Lawrence Summers, “there is a chance that macroeconomic stimulus on a scale closer to World War II levels than normal recession levels will set off inflationary pressures of a kind we have not seen in a generation.”¹ Another influential economist, Robert Barro, fears that Fed and Treasury leaders “will squander the reputational capital that [Paul] Volcker bequeathed,”² which was “the public conviction that these two institutions would do whatever was necessary to ensure low and stable inflation”; now, Barro writes, they have been pursuing reckless monetary and fiscal policies.³ Another high-profile American economist, Kenneth Rogoff, also warns of the risks of higher long-term expected inflation.⁴

Fear of an inflation spike in the USA caused a stable increase in the bond market yields, and this was a reflection of investor expectations of strengthening pro-inflationary trends and a premature increase in interest rates engineered by the FRS. The yield on the benchmark 10-year US Treasury note climbed from 0.93% per annum as of December 31, 2020 to 1.56% per annum

1 Summers Lawrence. The Biden stimulus is admirably ambitious. But it brings some big risks, too. Washington Post, Feb. 4. 2021.

2 Chairman of the US Federal Reserve System in 1979-1987.

3 Summers Lawrence. The Biden stimulus is admirably ambitious. But it brings some big risks, too. Washington Post, Feb. 4. 2021.

4 Rogoff Kenneth. Are Inflation Fears Justified? Project Syndicate, March 1. 2021.

3. US Stimulus Plan Raises Inflation Expectations

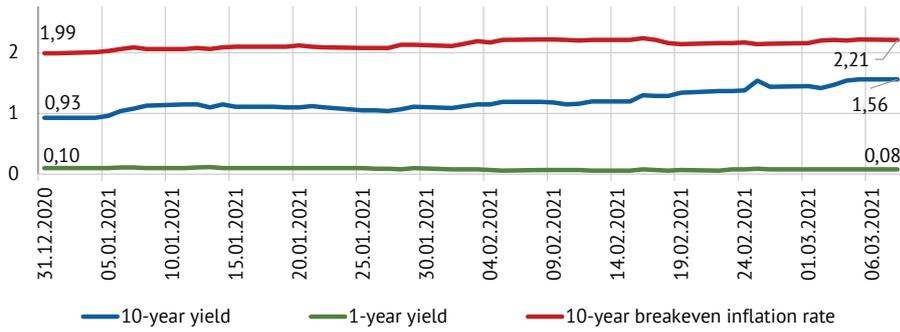


Fig. 1. US Treasury yields and 10-year breakeven inflation rate over the period from December 31, 2020 through March 8, 2021, %

Source: Bloomberg.

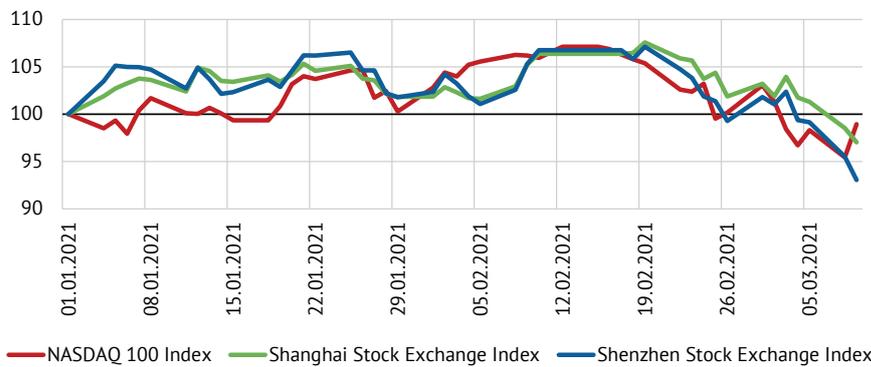


Fig. 2. The movement of Chinese stock exchange indexes and NASDAQ 100 Index from January 1, 2021 through March 3, 2021 (January 1, 2021 = 100%)

Source: Bloomberg.

as of March 8, 2021 (Fig. 1). The yield on one-year Treasury note over the same period of time fell from 0.10 to 0.08%. This is indicative of the investor short-term liquidity preferences in face of economic uncertainty. The 10-year breakeven inflation rate rose from 1.99% at year end 2020 to 2.21% as of March 8, 2021.

In February-March, Chair of the US Federal Reserve Jerome Powell tried to allay the fears of market participants regarding inflation growth, but to little avail.¹ The demand for long-term Treasury notes remained low, and their yields continued to climb.

The rising inflationary expectations in the USA caused a downfall in stock prices, and primarily of the stocks of high-tech companies in the NASDAQ index (Fig. 2). However, this trend could be temporary, and it probably reflects the irrational behavior of investors: from an economic point of view, an expected inflation rise should boost the nominal profits of companies and, all other conditions being equal, support the upward movement of share prices.²

There was another extraordinary event illustrating the new role of unqualified investors, which strongly influenced the situation in the stock markets. Over the January-February 2021 period, a flurry of speculative trading in

1 Cox Jeff. Fed Chairman Powell says economic reopening could cause inflation to pick up temporarily. CNBC on-line, March. 2021.

2 Hulbert Mark Opinion: Inflation is rising and so are investors' fears about stocks. MarketWatch on-line, Feb. 20. 2021.

shares of GameStop and AMC was noted in the USA. Thus, between January 25 and 27, 2021, the price of GameStop shares on the stock exchange soared from \$76.8 to \$347.5, and in intraday trading, to \$483. In the history of the US financial market, such surges had already happened before.¹ The peculiarity of the current situation is that the force attacking the hedge funds that opened short positions on stocks were numerous unqualified investors organized through the Reddit social network. The influx of private investors led to disruptions in the settlement system of Robinhood, the brokerage company that handled the main flow of transactions in GameStop and AMC shares.

The stock exchange attack on the shares of these companies is of particular public importance: Reddit players have clearly demonstrated the potential of new digital technologies, which allows the involvement of millions of unqualified investors in transactions with risky assets, whose behavior can be manipulated through social networks, in view of the obvious unwillingness of financial regulators to withstand the resulting risks.²

The impact of social media on the decisions of unqualified investors has become the subject of some high-profile discussions. Facebook has 1.85 bn daily users; Twitter, 187 mn; and Reddit, 52 mn.³ The participants in these discussions so far have not insisted on changing the norms stipulated in Section 230 of the 1996 Communications Decency Act, which protect social networks from civil liability for their user content. However, the question of control over the collective market actions organized by social networks remains open.

Besides, the business model of Robinhood and other online brokers, which receive income from the resale of client orders to buy and sell securities to a limited number of market makers, could likewise be seriously revised.

Finally, it is expected that under the new US administration, the authorities will work towards strengthening the role of the financial market regulators. The SEC (Securities and Exchange Commission) and the CFPB (Consumer Financial Protection Bureau) are bringing in new CEOs who, during Barack Obama's presidency, earned the reputation of active fighters against violations of the rights of consumers of financial services.

All these developments in the USA have been influencing the markets of other countries. As shown in *Fig. 2*, the expectations of the launch of a new stimulus package triggered a decline in the value of technology stocks not only in the USA, but also in China. The People's Bank of China issued a statement about the danger of anti-crisis measures adopted by the USA, because it believed that their implementation would cause the growth of bubbles in the global financial markets and strengthening of inflationary expectations.⁴

In the medium term, the Russian economy and financial market are likely to benefit from an increased US budget spending. The expensive relief measures

1 The Barron's edition recalled the events that happened 100 years ago, in 1923, with the shares of the popular Piggly Wiggly chain of stores. An attempt by the founder and president of that company, Clarence Saunders, to "punish speculators who opened short positions" on its shares by buying them on the stock exchange eventually ended in Sanders' financial collapse. (Pringle Kenneth. The GameStop Phenomenon Is Hardly New. Here's How a Similar Squeeze Played Out in 1923. Barron's on-line, Feb. 3, 2021).

2 In the situation with GameStop shares, massive losses of unqualified investors were apparently avoided due to the prompt reaction to the speculative surge on the part of the authorities and the media; this, however, does not exclude a repeat of the speculative attack on the shares of any other companies.

3 Needleman Sarah. Reddit's Valuation Doubles to \$6 Billion After Funding Round. The Wall Street Journal on-line, Feb. 8. 2021.

4 Chiu Joanne and Yu Xie. Chinese Stocks Slide, With a Major Index in Correction Territory. The Wall Street on-line, March 8. 2021.

3. US Stimulus Plan Raises Inflation Expectations

can push up prices for oil and other raw materials, and thus boost the value of shares in Russian companies. However, this effect will be temporary; in the medium term, the growing bubbles in the commodity and financial markets will result in their readjustment and losses for investors.

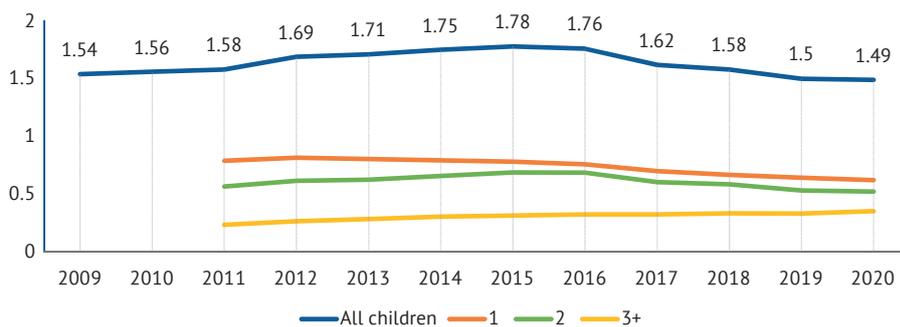
In the long run, inflationary expectations will rise, which may further accelerate actual inflation. 

4. BIRTH RATE IN RUSSIA IN 2020: REGIONAL DYNAMIC

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In the wake of the birth rate stabilization in the country as a whole, the majority of regions demonstrated a trend to reduce the birth rate of the first child and to increase the birth rate of third and subsequent children. The stability of this trend means a simultaneous increase in childlessness and multi-child parenting, which was not previously typical for Russia. It is possible that the effect of delayed child-bearing in the pandemic will affect Russia in 2021, however, now it is impossible to determine which birth order it will affect most.

General birth rate: decline in the majority of regions



Note. The total fertility rate for children of separate priorities for 2009 and 2010 is not given, because in these years, a significant number of Russian regions did not have data on the number of children born by birth order.

Fig. 1. Total fertility rate across all first, second, third and subsequent children in RF, 2009–2020

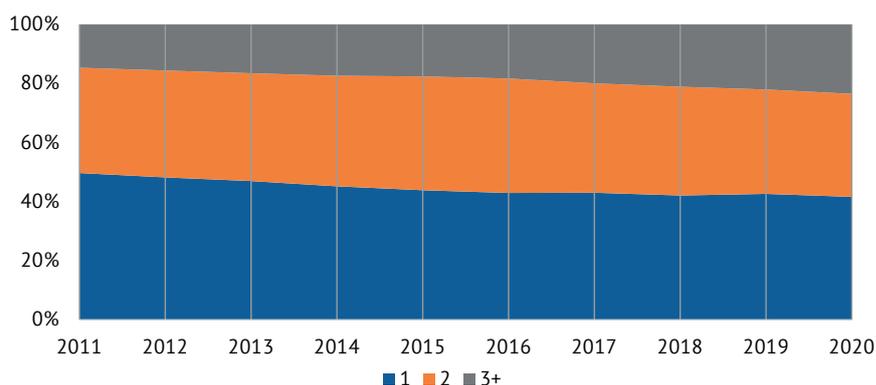
Source: Rosstat.

In February, based on operational data for the four quarters of last year, Rosstat released preliminary data on the birth rate in the regions of Russia in 2020.¹ The projected estimate of the total fertility rate (TFR) for the past year was 1.49 children per woman, compared to 1.5 in 2019 (*Fig. 1*). This stabilization occurred after a reduction in the TFR by 16% from 2015 to 2019. At the same time, the level at which the total fertility rate has been cemented in the last two years is the lowest since 2009, i.e., for almost the entire period of the federal maternity capital payment program (launched in 2007).

The degree of variability of the total fertility rate by region remained at approximately the same level in 2020 as in previous years (the interregional

¹ URL: <https://fedstat.ru/indicator/55407>; <https://fedstat.ru/indicator/59771>; <https://fedstat.ru/indicator/59772>

4. Birth Rate in Russia in 2020: regional dynamic



Note. Calculation as a ration of TFR for corresponding birth order to general TFR.

Fig. 2. Contribution of different birth order children to total birth rate in Russia, 2011–2020

Source: Calculated on data released by Rosstat.

variation coefficient of the TFR for 2020 – 0.19, in 2017–2019 it stood at 0.17). Among the federal districts, the most noticeable increase in the birth rate in the past year was recorded in the North Caucasus (the average growth in the regions across district was 1.57%) and in the Far East (1.18%), the most noticeable drop was reported in the North–West (-2.18%), Central (-1.76%), and Volga (-1.63%) districts. In the Southern, Urals and Siberian districts, the changes in the TFR for the year on average for the region were less than 1%.

In 2020, the “contributions” of births of different orders to the total birth rate continued to change: the births of the first children decreased, and the births of the third and subsequent children increased. This trend has been observed over the past decade (*Fig. 2*). However, in 2020, it could be expected to change somewhat on the back of new state measures of birth rate support, one of which is aimed at increasing the birth rate of third children, and the other – the first children. Starting from 2019, the state reimburses large families (with at least three children) for mortgage loan repayments in the amount of up to \$450,000, and it became possible to receive federal maternity capital at the birth of the first child in 2020. Since the most significant effect of state support measures is usually expected in the first years of their operation,¹ dynamic of the birth rate of the first and third children, including in the regional context, is of particular interest in 2020.

Birth rate of the first children

For the country as a whole, the total fertility rate calculated in 2020 only for the first children (TFR1) continued the decline that commenced in 2013. (*Fig. 1*). This being said the dynamic of the birth rate of the first child by region was less uniform than in previous years. In 2017–2019, the average annual change in the birth rate of first children, i.e. the change in the total birth rate for first children (TFR1) compared to the previous year, was negative in all regions except Moscow (an average annual increase of 0.54%) and the Republic of Ingushetia (4.3%). In 2020 the composition of the regions where birth rate of the first children was growing was more representative: the Moscow region (An increase of 11.1% compared to 2019) the Magadan region (10.3%), Ingushetia (7.3%), Kabardino-Balkaria (5.8%), Kamchatka krai (4.2%), Karachaevo-Cherkassia

¹ See Zakharov S.V. Demographic Analysis of the Family Policy Measures Outcome in Russia in 1980s // SPERO. Social Policy: expertise, recommendations, reviews. 2006. No. 5. P. 33–69. URL: http://spero.socpol.ru/docs/N5_2006-33_69.pdf

(4.2%), Dagestan (1.7%), Yamal-Nenets autonomous okrug (1.47%), the Tyumen region (1.42% except autonomous okrugs), moreover, in 3 regions – Udmurtia, Khabarovsk krai and the Yaroslavl region – TFR1, according to preliminary estimates, remained flat compared to 2019.

The listed subjects of the Russian Federation are very heterogeneous in geographical and economic terms. The increase in the number of subjects of the Russian Federation in 2020 where there was an increase in the birth rate of the first child, suggests a certain reversal of the trend towards an almost universal reduction in the birth rate of first-born children, observed in the previous 3 years. This is also indicated by the dynamics of the annual change in TFR1 on average for the regions: in 2020, it was -3.4%, while the average for 2017–2019 stood at -6.2%. However, it is premature to argue thereon about the efficacy, even in the short term, of the initial payments of maternity capital for the first children: this measure was introduced only at the beginning of 2020 and could affect the birth rate only in the last quarter of the year.

The birth rate of third and subsequent children

In 2020 in the country as a whole, the total fertility rate for third and subsequent children (TFR3+) continued to move up, going for more than 10 years (*Fig. 1*), and it spread to a larger number of regions than before in the past year. In 2020, TFR3+ grew in 70 regions, while its annual change on average for 2017–2019 was positive in only 58 regions. The average regional growth of TFR3+ for 2020 was 5.64%, and the average for 2017–2019 stood at 1%. Given that the effect of compensation for large families of mortgage contributions commenced in 2019, we can assume that in 2020 this measure contributed to the already observed increase in large families

Table 1 demonstrates the leading regions in terms of TFR3+ growth in 2020. The composition of these regions refutes the widespread perception that incentives for maintaining or growing of large families are available only in regions with a low level of economic development and a high proportion of the rural population.

Table 1

Regional leaders in the growth of TFR3+ in 2020 compared to 2019

Region	Change of TFR3+, %
Tuva	23.9
Adygea	16.7
Moscow region	16.0
Kaluga region	15.6
Mariy El	13.5
KhMAO	11.9
YaNAO	11.8
Чувашия	11.4
Kabardino-Balkaria	11.3
Jewish autonomous region	10.5

Calculated: calculated on data released by Rosstat.

Reproductive behavior polarization

Accordingly, in 2020, the number of regions with an increase in the birth rate of third and subsequent children continued to rise. The decline in the birth rate of the first children in 2020 was not such an all-encompassing trend as in previous years, but it was still observed in most regions.

The simultaneous growth of childlessness (owing to a reduction in the birth rate of the first children) and large families is historically new for Russia. During the Soviet era, the general vector was a reduction in the birth rate with a low (mostly around 5%) share of women who remained childless by the end of the reproductive period.¹ In the first decade and a half of the post-Soviet period,

¹ Vishnevsky A.G. (Ed.). Demographic Modernization in Russia: 1990–2000. Moscow. Novoe Izdatelstvo. 2006. P. 176–183.

4. Birth Rate in Russia in 2020: regional dynamic

both the level of large families and the birth rate of the first children declined, and since the mid-2000s, the birth rate of children of all priority categories, including the first and third, has risen.¹ The current trend leads to a kind of *demographic polarization, to an increase in the number of population groups that have chosen fundamentally different options for reproductive behavior – childlessness and large families.*

A similar trend has been observed in recent decades in a number of countries in Western and Central Europe, where researchers speak of it as one of the manifestations of social modernization, which implies greater variability in reproductive behavior, the rejection of any mandatory standards. However, it is premature to say that Russia has fully accepted this trend, since we are still talking only about the birth rate monitored over several years. Stronger conclusions can be drawn based on the increase in the proportion of large and childless women who end the reproductive period; such data can be obtained during the next population census.

It is also important to take into account the fact that the TFR for 2020 practically does not reflect the impact of the pandemic on the birth rate – it has become a significant factor in the lives of Russians only since April. Since surveys conducted in a number of European countries have indicated a clear trend towards postponing childbearing in the context of an increase in the incidence of COVID-19,² it cannot be excluded that the effect of delayed childbearing will also affect Russia in 2021, but it is now impossible to predict which order of birth it will affect most. 

1 Zakharov S.V. (Ed.). Russian Population: Twenty Fourth Annual Demographic Report. Moscow. NSE Publishing House. 2018. P. 186–252.

2 Luppi, F., Alpino, B., and Rosina, A. The impact of COVID-19 on fertility plans in Italy, Germany, France, Spain and UK. Preprint. 2020. DOI: 10.31235/osf.io/wr9jb.