

MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

No. 18(141) November 2021

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Monitoring of Russia's Economic Outlook

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1. INDUSTRIAL PRODUCTION DYNAMICS IN Q3 2021¹

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In Q3 2021, industrial output growth was mainly driven by extractive industries owing to a pickup in demand for power-generating coal and natural gas and ebbing restrictions related to the OPEC+ agreement. The following factors kept affecting dynamics of different sectors of the Russian industry: further anti-COVID restrictive measures introduced both in Russia and its main trade partner countries (particularly, China); soaring prices for primary commodities (for the chemical industry and metallurgy) on the world's commodity exchanges; termination of government support programs and consumer demand stimulating measures (for the light industry and the engineering industry).

To provide accurate interpretation of the existing trends in individual industries, we decompose their output into calendar, seasonal, non-recurrent and trend components.² Experts at the Gaidar Institute and RANEPA cleared seasonal and calendar components from manufacturing industries' index series for 2003-2021 and singled out the trend component³ based on the latest statistics published by Rosstat on output indices in industrial sectors of the economy.

The resulting series for the industrial production index as a whole are presented in *Fig. 1*. Shown in *Fig. 2* is the result for aggregate indices of the extractive and manufacturing sectors and production and distribution of electricity, gas and water. The results for the decomposition of other series are presented in *Table 1*.

As noted above⁴, from May through July 2021 extractive industries saw growth owing to prevalence of the factors which were common to the beginning of 2021: increased demand for power-generating coal and natural gas on European and Asian markets; ebbing restrictions related to the OPEC+ agreement, owing to increased quotas on daily oil production volumes in member countries.

1 The authors express gratitude to M. Turuntseva and T. Gorshkova for assistance in preparing the statistical analysis.

2 "Trend component" is a well-established term in the literature; however, it is noteworthy that this component is not a "trend" in a strict sense and is used in econometrics for analyzing time series: in this particular case, it is the remainder after the time series have been cleared from calendar, seasonal and non-recurrent components. It is incorrect to use the "trend component" for forecasting time series, but can be used for interpreting short-term dynamics and for comparison with events that have taken place.

3 The trend component was determined using the Demetra package with the X12-ARIMA procedure.

4 A.S. Kaukin, E.M. Miller. Industrial Production Dynamics, May Through July 2021 // Russian Economic Developments. 2021. No. 9 (28). P. 27–32.

Also, late in H1 2021 the manufacturing sector saw growth on the back of higher prices and increased external demand for products manufactured by the industries that accounted for a considerable share of industrial production (metallurgy, the chemical industry and oil refining).

In Q3 2021, the trend component in the extractive industries picked up. Oil production growth was backed by continued recovery of demand for oil and the OPEC+ response to this growth: starting from August 2021 they kept increasing on a monthly basis the overall volume of oil production by 400,000 barrels per day (for Russia the increase amounted to about 100,000 barrels per day¹). The factors which had an impact on growth in natural gas production and coal mining remained the same. In case of natural gas production, it is the remaining low replenishment of underground gas storage facilities (UGSF) in Europe² coupled with a pickup in demand for gas in the domestic market and China (growth in export gas supplies via the *Sila Sibiri* pipeline). As for coal mining, it is growth in demand for coal on Asian and European markets caused by soaring prices for natural gas that made coal a viable alternative.

Based on results for Q3, 2021, the manufacturing sector's trend component saw near-zero growth rates; this dynamic was still supported by the following sectors:

- The light industry (production of food, textile and leather goods) – mainly owing to a shift in consumers' demand towards a lower price segment because of a decrease in households' incomes, as well as restrictions on the minimal share of Russian-made goods in government procurements (for most positions of products included in the list, the quotas are set at the level of 50–90% of the procurement volume)³;
- The chemical industry – mainly on the back of a pickup in domestic and external demand for pharmaceuticals and medical materials, as well as external demand for nitrogenous fertilizers which production requires a large volume of natural gas. Soaring prices for

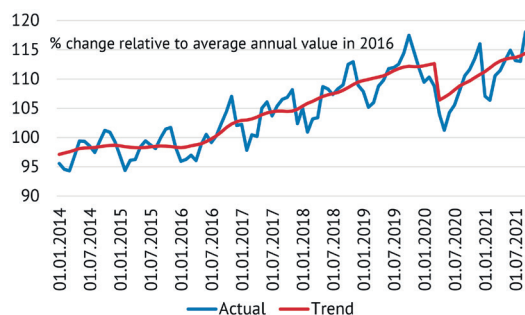


Fig. 1. Industrial Production Index Dynamics, 2014–2021 (actual data and trend component), % change relative to average annual value in 2016

Source: Rosstat, own calculations.

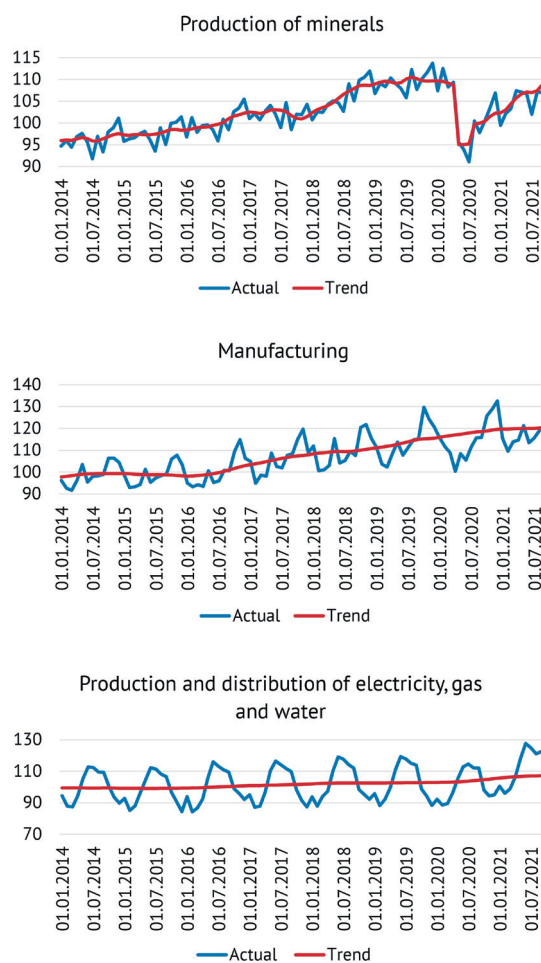


Fig. 2. Production indices' dynamics across sectors, 2014–2021 (actual data and trend component), % change relative to the 2016 annual average value

Source: Rosstat, own calculations.

1 This increase is extended till November 4, 2021, see: 21st OPEC and non-OPEC Ministerial Meeting concludes // OPEC. 04.10.2021. URL: https://www.opec.org/opec_web/en/press_room/6647.htm

2 52.2% in July 2021 against 83.3% in July 2020; 62.5% in August 2021 against 88.9% in August 2020; 74.1% in September 2021 against 93.3% in September 2020.

3 Resolution No.2013 of December 03, 2020 of the Government of the Russian Federation "On the Minimal Share of Procurement of Goods of Russian Origin."

1. Industrial Production Dynamics in Q3 2021

Table 1

Output index change across economic sectors, %

Name of sector	Share in industrial production index	September 2021/ December 2020	September 2021/ June 2021	Change over past months
Industrial production index		103.30	100.75	slow growth
Extraction of minerals	34.54	106.41	101.59	growth
Manufacturing, including:	54.91	100.66	100.36	stagnation
Production of food products, including beverages and tobacco	16.34	109.52	103.06	growth
Textile and garment industry	1.14	101.74	100.66	slow growth
Manufacturing of leather, articles thereof and footwear	0.27	101.27	101.35	slow growth
Wood processing woodware manufacturing	2.02	102.10	100.02	stagnation
Pulp-and-paper industry	3.35	90.61	95.62	decline
Production of charred coal and petrochemicals	17.25	104.21	101.01	slow growth
Chemical industry	7.56	109.60	103.51	growth
Manufacturing of rubber and plastic articles	2.14	96.59	100.86	slow growth
Manufacturing of other nonmetallic mineral products	4.02	107.06	103.16	growth
Metallurgy and manufacturing of ready-made fabricated metal products	17.42	114.62	104.79	growth
Manufacturing of machinery and equipment	6.97	109.41	103.34	growth
Manufacturing of electrical, electronic and optical equipment	6.27	97.40	98.99	slow decline
Manufacturing of transport vehicles and equipment	6.75	104.55	101.80	growth
Other industries	2.42	97.60	100.87	slow growth
Electricity, gas and water supply	13.51	101.74	100.29	stagnation
Wholesale trade		102.51	101.21	slow growth
Retail trade		101.48	101.22	slow growth
Cargo turnover		104.89	99.31	slow decline
Building		103.44	100.36	stagnation
Volumes of fee-based services to households		103.07	100.87	slow decline


Source: Rosstat, own calculations.

natural gas made their production unprofitable in Europe and spurred demand for such fertilizers from Russia;

- Metallurgy – owing to an upturn in export and domestic supplies as a result of appreciation of global prices for metallurgical products as well as abolishment in China of VAT refund at export and import duties on some ferrous metal products. Further, early in Q3 2021 exports growth was driven by new higher customs duties introduced in Russia late in July on a wide range of goods produced by this industry;
- Engineering. Lack of semiconductors and appreciation of prices for raw materials did not affect Russian output volumes of transport vehicles,

machinery and equipment which kept growing in Q3 2021. This can be probably explained by existing shortages¹ of products on the market as a result of enterprises' slack operation during the lockdown in 2020. Also, expectations of price appreciation on the back of a likely increase in the recycling tax and exchange rate fluctuations late in H1 2021, as well as government measures on boosting demand for individual types of machinery played their role in it.

The dynamics of the trend component of fee-based services to households were still negative, probably, because of restrictions in effect in some regions of Russia during the pandemic. The trend component of cargo turnover declined slowly in Q3 2021 on the back of a decrease in exports of fuel and energy primary products as a result of infrastructure limitations² related to coal transportation to the Far East for export to China and a pickup in domestic demand for natural gas. Wholesale and retail trade grew slowly: wholesale trade mainly owing to growth in sales of pharmaceuticals and medical products, chemical fertilizers and machinery and retail trade owing to growth in sales of food and textile products, as well as payments (meant to underpin consumer demand) on school-aged children in August and payments to pensioners and military servicemen in September.

The main risk factors of slowdown of output growth in industry are still the same: deterioration of the epidemiological situation both in Russia and in the countries it maintains active trade relations with (for example, exports of metallurgical and chemical products to China); appreciation of prices for primary products on the world's commodity exchanges; termination of government programs and consumer demand stimulating measures. 

1 According to the data of the Russian Auto Dealership Association (RADA), demand for cars is not met, while the equipment thereof is getting worse; some car models are manufactured without multimedia, navigation and other options because of lack of chips.
2 Eastward railroad track capacity makes it impossible to increase exports of Russian coal to China.

2. ADAPTABILITY OF VARIOUS GROUPS OF ENTERPRISES TO THE 2020 CRISIS

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Depending on their size, Russian industrial enterprises adapted in different ways to the pandemic. The highest adaptability was typical of very large enterprises, while the lowest one, of small and mid-sized companies. As the crisis was subsiding, enterprises' estimates of their performance indicators returned to the pre-pandemic level.

The previous article¹ presented calculations of the adaptability (normality) index for the Russian industry as a whole. As seen from our estimates, during the extraordinary pandemic-induced crisis of 2020 the Russian industry showed once again high adaptability to new business conditions. However, calculations of this index depending on the size of enterprises revealed different trajectories of manufacturers' adaptability to the pandemic (*Fig. 1*).

So, Q2 2020 saw the most dramatic drop (from 60% to 52%) in the adaptability (normality) index as regards the group of small and mid-sized enterprises mainly

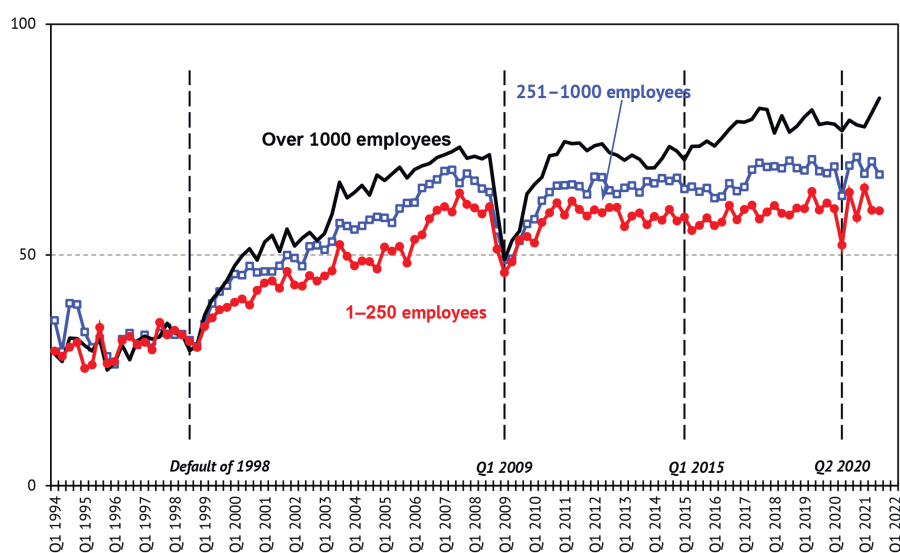


Fig. 1 Adaptability indices in terms of the size of enterprises, 1994–2021, % (the share of enterprises assessing their key performance indicators as "normal")

¹ S.V. Tsukhlo. The Russian Industry's Adaptability to the 2021 Crisis. Monitoring of Russia's Economic Outlook. Trends and Challenges of the Socio-Economic Development. Issue No.16 (148). October 2021.

owing to a decrease in satisfaction with current demand (a drop of 17 points) and downward revision of the estimates of their financial and economic situation (16 points). The share of normal estimates of stocks of finished products lost 8 points and that of normal ("sufficient") estimates of available production capacities, 6 points. At the same time, employment estimates decreased by the mere 2 points, while the estimates of raw materials inventories increased.

The level of adaptability of large enterprises (251–1000 employees) to new business conditions decreased in the beginning of the crisis from 69% to 63% due to a decline of all their indicators. When the crisis broke out, the estimates of enterprises' financial situation and "normal" raw materials inventories were "hit" the hardest (a decrease of 10 points and 9 points, respectively). It is noteworthy that the latter declined on the back of a pickup in the share of the "below the norm" estimates. In this group of enterprises, the minimal reduction in normal estimates took place in respect of sales volumes, a decrease of the mere 4 points within the crisis quarter. Incidentally, satisfaction with sales started to decline as far back as the end of 2019.


Very large enterprises (over 1000 employees) showed the highest adaptability to the 2020 crisis. Based on the Q2 outturns, in this group of enterprises the average share of normal estimates of six key performance indicators decreased by 1 p.p. and was equal to 77%. Notably, in 1994–2020 an all-time high of 82% was registered in 2017.

So, the crisis-induced losses relative to the maximum level turned out to be small, too. However, this averaged stability concealed multidirectional trends in enterprises' assessment of their situation. For example, estimates of demand lost 16 points and fell to 47%. This group of enterprises has not seen such low satisfaction with demand since 2010. But other indicators declined insignificantly with only two indicators affected. The level of sufficient HR staffing fell by 3 points with growth in excess employment of up to 12% and reduction of up to 6% in staffing shortages; as a result, this group estimated its staffing situation as surplus. The share of estimates of raw materials decreased by 2 points with a zero balance of other answers. Three other benchmarks showed growth in the share of normal estimates. Adequate provision of capacities picked up by 8 points and was equal to 74% in the group of very large enterprises in the first crisis quarter. Such an increase was driven by a reduction in the share of estimates of unemployed capacities whose growth was registered in January 2020 when the Russian industry was probably getting prepared to the oncoming classic crisis of overproduction. At that time, the balance of estimates of capacities increased up to +21 percentage points and reached the values registered in 2016, that is, at the peak of the previous crisis. Early in the crisis of 2020, the share of normal estimates of stocks of finished products picked up by two points, while the balance of other estimates remained at the level of the previous two quarters, that is, no crisis-induced upsurge in surplus of this kind of inventories was registered. However, a similar situation with estimates of stocks of finished products took place in the beginning of the previous crisis of 2015–2016. Despite a dramatic downward revision of estimates of demand, very large enterprises' normal estimates of their financial and economic situation showed growth of two points. As a result, 95% of enterprises of this group regarded their situation as good or satisfactory. In the group of small and mid-sized enterprises, such estimates were equal only to 57%.

But as far back as Q3 2020, the level of adaptability of enterprises of all sizes returned to the pre-crisis levels, primarily owing to the recovery of estimates

2. Adaptability of Various Groups of Enterprises to the 2020 Crisis

of current volumes of demand. This indicator showed substantial growth as far back as July-September 2020 and retained, though with short breaks, positive dynamics till Q3 2021 included, having attained either all-time highs or values close to them.

While the industry was exiting quickly from the pandemic crisis, estimates of stocks of finished products showed sooner negative dynamics: the shares of normal estimates in all the groups of enterprises declined more often than picked up, while balances of other estimates pointed to growth in shortages of all types of inventories. Estimates of employment returned at once to the pre-crisis levels and later started to reveal enterprises' acute staffing problems. It is noteworthy that from Q3 through Q4, 2021 all the groups of enterprises experienced labor shortages with a decrease in normal staffing. Also, adequate provision of capacities returned to the pre-crisis level as far back as 2020 with preservation of a traditional shed of excess capacities. But late in 2021 the shed was replaced by capacity shortages which have not been observed since 2008. 

3. THE BEHAVIOR OF PRIVATE INVESTORS IN THE STOCK MARKETS OF RUSSIA AND THE USA

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Over the past two years, millions of new private investors have entered the stock markets in Russia and the USA, but their number in the Russian Federation is significantly overestimated. In both markets, private investors face the risks of getting involved in speculative transactions. The Russian market demonstrates unfavorable economic and legal conditions for long-term savings in risky assets, which results in the prevalence of deposits and cash in the financial assets owned by households.

The number and certain characteristics of private investors

During the pandemic, stock markets were faced with the phenomenon of a large-scale arrival of private investors. It had been triggered by factors like the waning attractiveness of investments in bank deposits, technological progress in the field of financial services, growth of household savings rates, increased spare time that people could spend on making investments, and the aggressive marketing campaigns launched by financial institutions and social networks.

Thus, in the USA, the number of funded accounts opened by individuals with the three major brokers (Charles Schwab, Fidelity Investments and Robinhood) jumped from 51 mn in 2019 to 84 mn in September 2021, i.e. 1.6-fold (Fig.1).

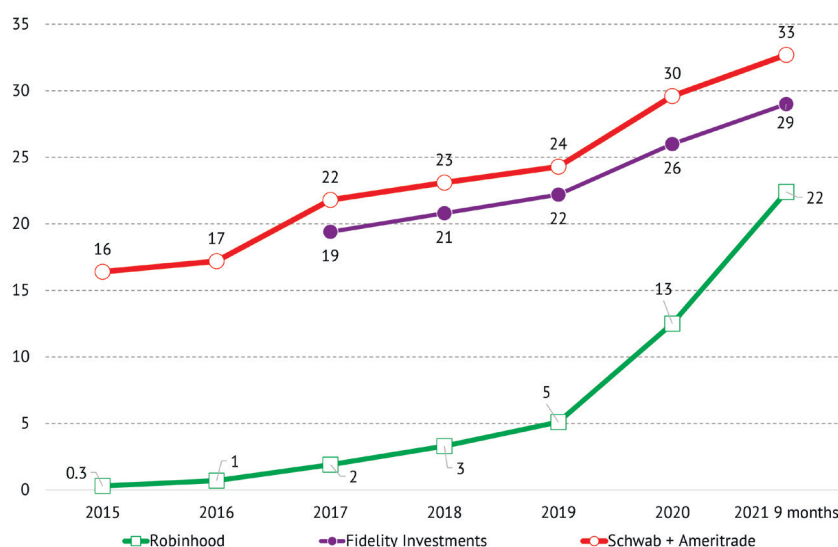
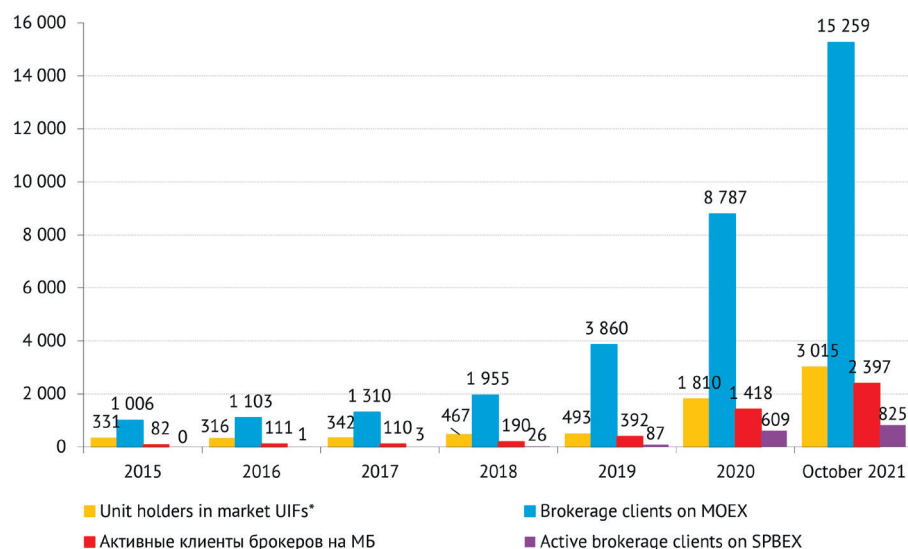


Fig. 1. The number of funded accounts opened by individuals with major online brokers in the USA from 2015 through September 2021, millions

Source: own calculations based on reports released by financial companies.

3. The behavior of private investors in the stock markets of Russia and the USA



* data for 2021 are as of June.

Fig. 2. The number of registered and active brokerage client accounts on the Moscow Exchange (MOEX), the number of active brokerage client accounts on the St. Petersburg Exchange (SPBEX), and the number of unit holders in open-end and exchange-traded mutual funds (UIFs), 2017 through October 2021, thousands

Source: own calculations based on data released by the Moscow Exchange, the St. Petersburg Exchange, and Expert RA.

The inflow of private investors into the Russian stock market has been even more strong than in the USA (Fig. 2). From 2019 through October 2021, the total number of brokerage accounts opened by retail clients on the Moscow Exchange increased from 3.9 mn to 15.3 mn, or 3.9 times, and the number of active brokerage accounts on the St. Petersburg Exchange increased from 87,000 to 825,000, or 9.5 times. Over the same period, the number of unit holders in open-end and exchange-traded mutual funds jumped significantly – from 0.5 mn to 3 mn, or 6 times.

Growth in the number of registered brokerage accounts on the Moscow Exchange in 2020 through October 2021 was caused in the main by the inputs of only three biggest retail banks: Tinkoff, Sberbank, and VTB. Over that period, they accounted for 82.5% of the total rise in the number of accounts of this type on the stock exchange.

The simple technology of carrying on transactions via a mobile app offered by these structures very much resembles that used by Robinhood in the USA. However, the specific feature of Russia's stock statistics is that the total number of accounts held by brokers' client is released regardless of whether the latter actually keep any assets in their accounts, while in the USA brokers are required to publish only the statistics of the funded accounts of their clients.

According to data released by the Bank of Russia for Q2 2021, the share of individuals holding brokerage accounts without any assets amounted to 62%.¹ This means that as of that date, out of the total of 3.5 mn accounts, only 5.1 mn accounts were funded ones. In our opinion, this significantly distorts the real information on the degree of population involvement in the domestic

¹ Bank of Russia. Review of Key Indicators of Professional Securities Market Participants. Q2 2021. URL: https://www.cbr.ru/securities_market/analytics/

stock market, and creates the need to more actively open new accounts with intermediaries.

The opinion polls conducted in mid-2021 by Gallup in the USA¹ and Morningstar², as well as those by Market Capital Solutions (MARCS) in Russia commissioned by the Bank of Russia,³ showed that in both these markets, the decisions to invest in securities were influenced by factors like the age of investors, whether or not they had received a higher education, and their income level. Meanwhile, both in the USA and in Russia, one of the key factors that were relevant for individuals in their decisions to invest in risky assets was their self-identification as investors. According to the Bank of Russia's survey conducted in September 2021, 64% of respondents considered themselves to be investors, while shares were a typical product for 44% of them. This indicates that, when entering the stock market, the majority of individuals seek long-term savings, whereas intermediaries may urge them to get involved mainly in speculative activities, because the remuneration of intermediaries depends not on the returns on individual client portfolios, but on the number and value of actually completed transactions.

The impact of brokerage business models on the risks of private investors

The stock market experiences gained in the context of the pandemic have demonstrated that the business models practiced by brokers can trigger irrational behaviors of private investors. As shown in *Fig. 3*, the success achieved in 2020–2021 by Robinhood in attracting into the market new private investors was not followed by that particular online broker catching up with Fidelity Investments and Schwab in terms of value of clients' assets in their accounts.

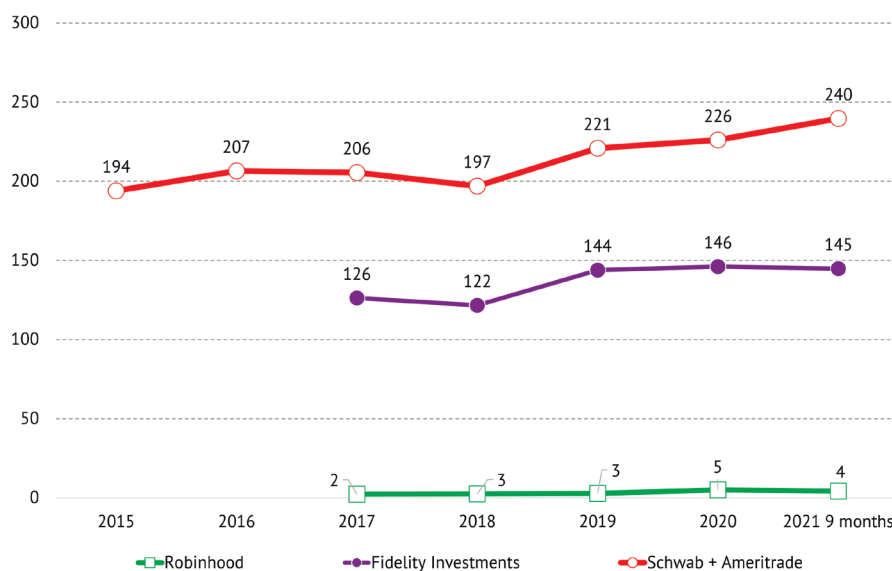


Fig. 3. The average value of assets in individual brokerage client accounts with US major online brokers, from 2015 through September 2021, thousands of US dollars

Source: own calculations based on reports released by financial companies.

1 URL: <https://news.gallup.com/poll/266807/percentage-americans-owns-stock.aspx?version=print>

2 URL: <https://www.morningstar.com/articles/1061489/why-some-people-invest-and-others-dont>

3 MARCS. Investment behavior and investment expectations of Russian novice investors in big cities. Moscow. September 2021. URL: https://www.cbr.ru/StaticHtml/File/41186/info_2021-10-06.pdf

3. The behavior of private investors in the stock markets of Russia and the USA

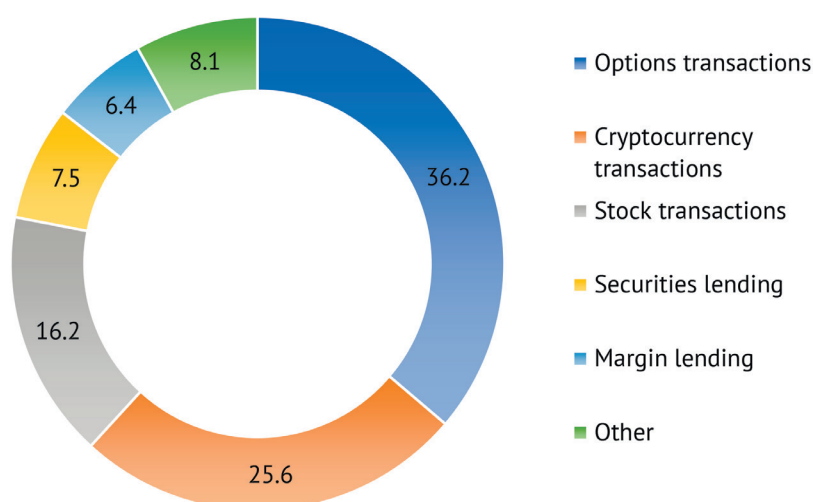


Fig. 4. The income structure of Robinhood, an online broker company, as of September 30, 2021, %

Source: own calculations based on reports released by financial companies.

In recent years, an average account size for a typical Robinhood account ranged from \$3,000 to \$5,000. This means that the company's business model is not focused on investments for savings purposes, involving instead millions of new market participants in speculations with stocks, options and cryptocurrency, which is confirmed by the data that it has disclosed. Robinhood's public development strategy does not envisage that clients should be provided with opportunities for opening savings accounts within the framework of their pension, educational and medical savings plans, commissioning the services of investment advisers, and purchasing units in mutual funds.

From the brokerage income structure as of September 2021 shown in Fig. 4 it becomes obvious that Robinhood's model is fraught with high risks to financial stability, and that it is focused on pushing the clients towards excessive speculative activity. A broker derives 78% of his income from the resale of client orders to buy and sell shares, options and cryptocurrency to market makers; 7.5%, from lending client securities to various entities; and 6.4%, from margin lending to clients. It is noteworthy that 61.8% of brokers' income is generated by high-risk transactions of their clients with options and cryptocurrency.

The problems faced by US online broker Robinhood are important from the point of view of the Russian stock market's development prospects. As has been shown by the discussion of Russia's financial market development strategy until 2030, there is no clear understanding of the prospects for the use of different savings accounts and services by financial institutions in this country, and that explains the popularity of the Robinhood model in the domestic financial market. Besides, brokers are being increasingly focused on providing risky services, such as options and cryptocurrency transactions, which can also boost the risks of private investors.

The structure, profitability, and risks of private investor portfolios in Russia

Since 2017, there have been some significant changes in the structure of household financial assets in Russia (Table 1). The share of bank deposits shrank from 57.1% of financial asset value in 2017 to 49.6% as of July 1, 2021;

the share of savings in the form of pension reserves and insurance reserves likewise declined from 9.5% to 8.8%. By contrast, the share of direct equity investments increased from 4.4% in 2017 to 7.1% as of July 1, 2021; that of investments in bonds, from 2.4% to 4.6% respectively; and that of investments in unit investment funds, from 2.3% to 3.8% respectively. The share of reserves in the form of cash in national and foreign currency markedly increased from 24.4% to 26%.

The increasing share of direct household investment in stocks and bonds alongside the shrinking share of deposits reflects the trend of household orientation towards riskier investments, in order to obtain yields that would be higher than the interest on bank deposits.¹ And the shrinking share, in the structure of household financial assets, of pension and insurance savings alongside a continuing and even growing share of reserves in the form of cash currency points to the presence of an unfavorable trend of a waning interest of households in long-term savings in NPFs and life insurance companies, although they still have available funds that could be invested in such savings.

Table 1

The structure of household marketable financial assets in Russia from 2017 through June 2021, %

	2017	2018	2019	2020	July 1, 2021
Cash	24.4	25.1	23.1	26.1	26.0
Deposits	57.1	55.5	55.2	50.9	49.6
Stock	4.4	4.3	5.4	6.5	7.1
Bonds	2.4	3.1	3.8	4.4	4.6
Unit investment funds	2.3	2.7	2.9	3.4	3.8
Pension and insurance reserves	9.5	9.3	9.5	8.7	8.8
Financial assets – total	100.0	100.0	100.0	100.0	100.0

Source: own calculations based on household savings data released by the Bank of Russia. URL: https://www.cbr.ru/statistics/macro_itm/households/

The above data on the composition of household financial assets and the characteristics of the corresponding asset benchmarks have made it possible for us to estimate the risk and return of a marketable household portfolio (less pension and insurance reserves and other non-marketable assets) over a five-year horizon, from 2016 through Q2 2021 (Fig. 5). Our calculations demonstrate that an average household portfolio differs greatly from the optimal portfolios based on the criterion of maximizing the return to risk ratio. The average annual yield of a household portfolio amounted to 5.4%, while average annual inflation over the same period was 4.2%, i.e. its yield was below the average deposit interest rate (5.97%). In terms of risks, it is comparable to the portfolio of corporate bonds of major issuers included in the IFX-Cbonds index (3.1% and 2.66% respectively), while being significantly behind it in terms of its yield (5.97% vs. 9.34%). The presence of foreign currency in the portfolio only increased the risks, without bringing noticeable benefits.

¹ According to the Bank of Russia, the interest on individual deposits in Russian rubles with a period of 181 days to 1 year decreased from 5.9% per annum in December 2017 to 3.2% in March 2021. Thereafter, it began to climb every month, to 4.2% in August of this year.

3. The behavior of private investors in the stock markets of Russia and the USA

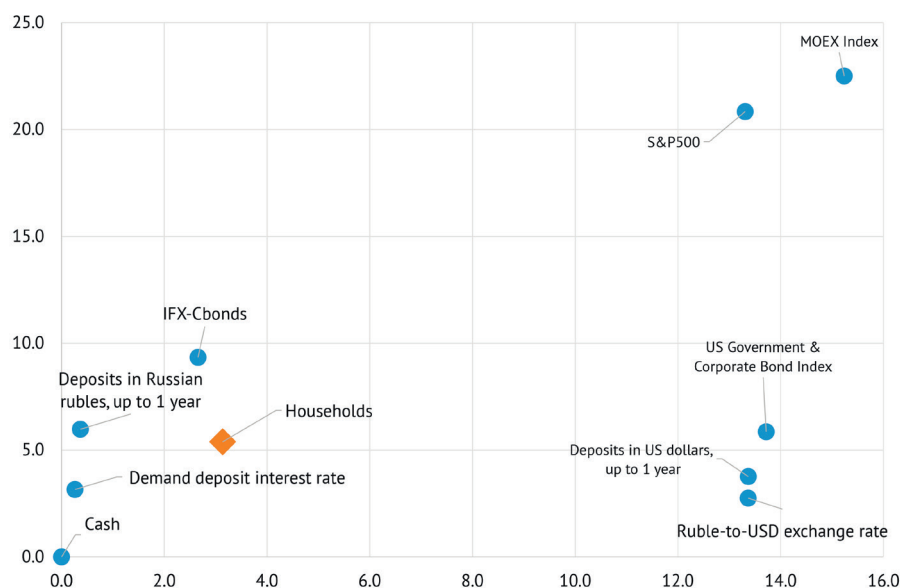


Fig. 5. The risks and returns of the household market portfolio as of Q2 2021, compared with major asset class benchmarks, as %, Q3 2016 – Q2 2021

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

This means that, in spite of the accelerated growth of the share of risky instruments in household financial assets, the share of cash and deposits therein has retained its key role, thus amounting to 75.6%. Given the high share of cash in the consolidated household portfolio, the strategy of investing in risky assets gives rise to accelerated growth of the portfolio risk index, while its return index is inferior to that of individual ruble deposits with a period of up to 1 year.

An analysis of certain aspects of the operation of stock markets in Russia and the USA makes it possible to set forth several conclusions:

- it would be feasible for the Moscow Exchange and the Bank of Russia to more objectively disclose their information on the participation of private investors in exchange transactions, by publishing not only the statistics of the total number of open brokerage accounts, but primarily the statistics of the number of funded accounts;
- the existing brokerage models are fraught with increased risks for clients, by encouraging in the main their speculative activities and investments in high-risk instruments (options and digital assets). It is necessary to expand the opportunities for brokers to open special accounts (supported by tax measures) for individual and corporate pension savings of their clients, and savings accounts for paying the costs of educational and medical services;
- the composition of household financial assets in Russia remains conservative, as the high and steadily increasing share of cash currency reserves points to a lack of relevant services and financial products that could be provided by financial institutions with an eye to long-term household savings. ▀

4. POTATO PRICE: GROWTH FACTORS AND WAYS TO REDUCE

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Since the end of 2020, the price of potatoes has sharply increased in Russia. The growth is associated with structural changes in production and a high level of world prices for crop products competing with potatoes for acreage. The increase in the cost in late winter and early summer is associated with the import of new potatoes, the price of which always differs from the prices of the last harvest and depends, among other things, on the ruble exchange rate.

In Russia, potato consumption tended to decrease, and in 2020, the year of the pandemic outbreak, it was especially noticeable (Fig. 1). Household budget surveys in 2020 revealed an average consumption level of 59.9 kg per person (30% less than the balance calculated indicators).

The purchasing power regarding potatoes – the number of kilograms that can be bought on average per capita income in 2020 was higher than in 2019, and in 2021 it was already significantly lower than in 2019 (Fig. 2). Note that even lower values were recorded in 2011 and 2014.

By the end of 2020, the average retail price of potatoes was 36% higher than a year earlier (Fig. 3). Moreover, the gap between the increase in prices at which the producer sold potatoes and at which they were sold to the consumer turned out to be the maximum since 2017.

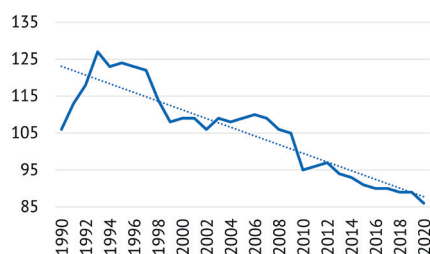


Fig. 1. Per capita annual potato consumption in RF, kg

Source: Rosstat.

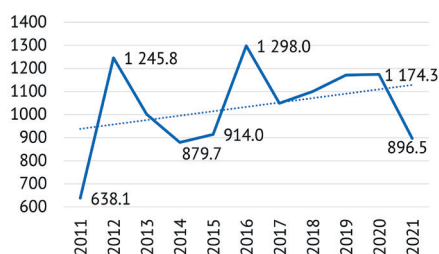


Fig. 2. Purchasing power of per capita cash earnings, kg of potatoes per capita income per month (on average for 9 months)

Source: Rosstat.

4. Potato price: growth factors and ways to reduce

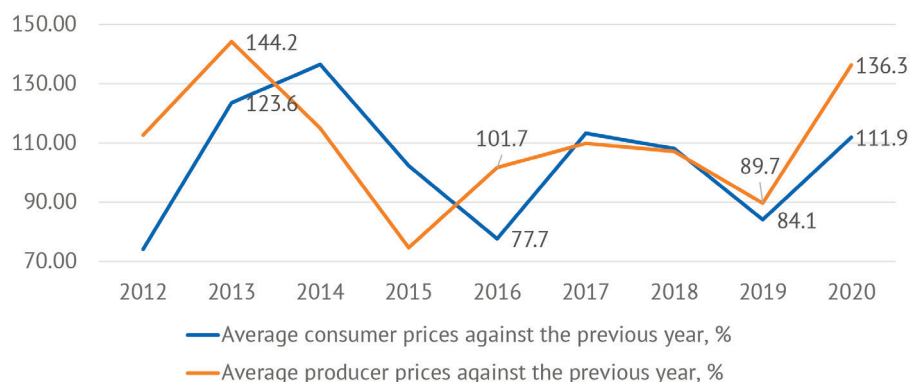


Fig. 3. Price indexes on potatoes in RF in 2012–2020

Source: Rosstat.

This growth (unlike the increase in prices for wheat and sunflower oil in the same period) cannot be associated with food inflation in the external market. From July 2020 to January 2021 is the “low season” of imports, when mainly Russian potatoes are consumed. Prices and small volumes of imports did not exceed the long-term average values (Fig. 4) and could not have such a significant impact on prices. The volumes and prices of potato exports in Q4 2020 were less than the average values for previous years and also could not seriously affect the dynamics of prices.

In 2021, the situation with consumer prices for potatoes deteriorated. By the end of October, the annual price increase hit 79.6%, which is the second largest indicator among vegetables after cabbage prices (96.8%).

The current price increase is significant even with long-term comparisons. The deviation of the price of potatoes in October 2021 from the average for the last 5 years (in comparable prices) comes to 82.1% (Fig. 5). In addition, potatoes are the leader among vegetables in terms of real overpayment by the population for goods – during the last year the overpayment stood at 31.6% compared to the 5-year average price.

It is obvious that internal factors are the main source of the increase in potato prices, if we do not take into account the rise in the cost of imported components (seeds, machinery), which could not so quickly pass into the price of the product.

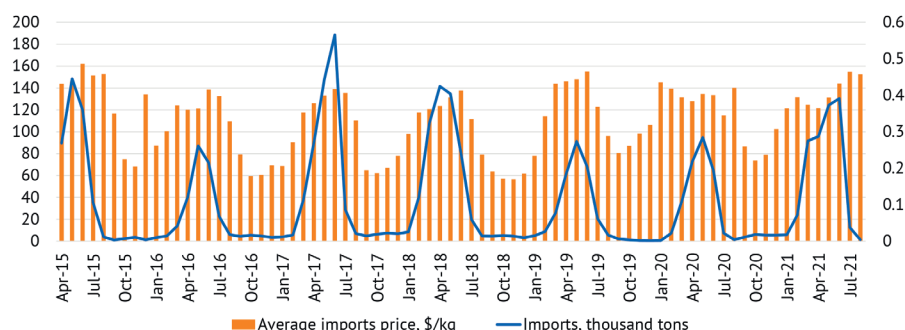


Fig. 4. Volumes and prices of potatoes in RF in 2015–2021

Source: ITC.

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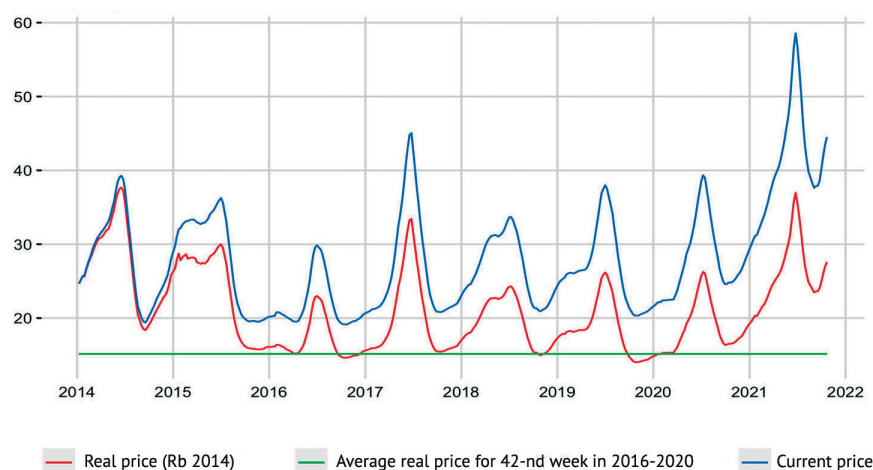


Fig. 5. Nominal and real consumer price for potatoes in RF in 2014–2021

Source: own calculation based on Rosstat data.

Over the past two decades (in 2020 compared to 2000), potato production by farms of all categories has decreased by a third (Fig. 6). However, this has not led to an increase in import dependence – the ratio of imports to domestic consumption in 2020 was 3.6%, and to production – 3.8%. Nevertheless, the process of falling production continues, and its speed increases: if for the entire specified period the average annual growth rate was -2.0%, then over the past 5 years the negative trend accelerated to -2.7%.

Structural shifts in this segment of agricultural production should be noted: a reduction in the share of production by household sector and the shift of production to the sphere of commodity production – agricultural organizations (AO) and farms. This process seems to be economically justified – production in the household sector (HS) is carried out by archaic methods. Occupying 76.2% of the acreage, the household sector provides only 65.2% of the total potato production, and the yield is only 53.3% of the yield in agricultural organizations.

However, there is a certain paradox – the potato yield in peasant (farmer) farms (PF) does not reach the level of agricultural organizations (80.2%), but their share in both the acreage and the gross potato harvest increases.

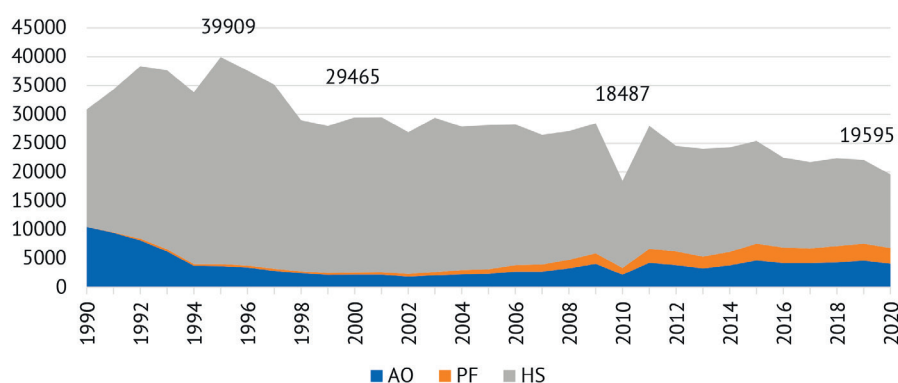


Fig. 6. Dynamics of bulk yield by farms of all categories and by categories of farms, thousand tons

Source: Rosstat.

4. Potato price: growth factors and ways to reduce

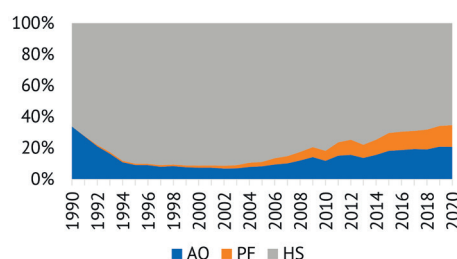


Fig. 7. Structure of potatoes bulk yield, %

Source: Rosstat.

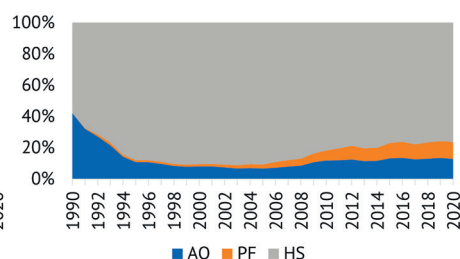


Fig. 8. Structure of potato acreage, %

Source: Rosstat.

But in agricultural organizations, where the yield is the highest, the volume of production in the last five years has almost not grown, in 2020 it was the minimum for this period (Fig. 7 and 8). As a result, the reduction in potato production in the low-commodity sector (household sector) is not compensated by an increase in production in commodity farms. If it is difficult for farms to integrate into retail chains due to the inability to ensure rhythmic and mass deliveries of standardized products, then it is agricultural organizations that are the main suppliers of supermarkets. Retail prices are formed on the basis of their potato supplies.

According to Rosstat, in general, in 1995, 4.53 kg of potatoes grown in household sector accounted for one kilogram purchased for family consumption, in 2006 – 1.39, in 2013 – 1.05, in 2015 – 0.94, and in 2018 (the last for which there are data) – 0.9 kg. If we take into account the general trend of declining production in household sector, natural receipts in 2020 were even smaller (potato production from 1995 to 2020 in household sector decreased from 35.8 to 12.8 million tons). Only in 2021 Rosstat and the RANEPa monitoring surveys on food security recorded a reversal in the trend of production reduction in household sector – it began to grow. However, its expansion has obvious limiting factors: aging of the population; lack of appropriate labor skills among the young; reduction of nominally and actually rural residents living in rural areas; problems with the sale of harvested potatoes.

The increase in potato production in agricultural organizations is constrained by the fact that they have great opportunities to change the structure of production depending on the level of products profitability. A comparison of the profitability of the main crops demonstrates that for potatoes and vegetables it is less than for oilseeds, grains and even beets (Table 1). On average, over the period presented, the profitability of potato production is 75% of the profitability of grain production, 37% of sunflower, 50% of sugar beet, surpassing only the profitability of open-ground vegetables – 155%. Farmers have less freedom in choosing crops, they have less equipment and opportunities to change it. If they received a grant or subsidy and formed potato or vegetable farms, they will produce potatoes even when it is more profitable to produce grain.

At the same time, Russian potatoes are competitive in price – this can be seen by the nominal NPC protection coefficient (the ratio of prices on the world market and on the threshold of the Russian farm): since the devaluation of the ruble in 2014–2015, it has remained unchanged and is equal to 1. Thus, there are no opportunities both to reduce domestic prices by expanding imports, and to increase the profitability of production by exporting at higher prices.

Table 1

Profitability of production of main crops in agricultural organizations, %

Years	Cereals (including corn)	Sunflower seeds	Sugar beet	Potatoes	Vegetables (open ground)
Less subsidies from the budget					
2014	24.3	48.6	38.6	34.9	17.8
2015	39.5	90.9	78.9	23.9	26.6
2016	32.8	70.5	56.2	4.7	7.4
2017	18.6	42.0	13.2	19.8	4.1
2018	25.6	33.2	27.6	22.9	12.6
With subsidies from the budget					
2014	30.5	52.8	40.5	38.2	19.5
2015	44.9	94.1	80.9	26.9	29.1
2016	37.0	73.1	58.1	5.8	9.0
2017	21.4	42.2	13.4	22.3	7.5
2018	29.0	33.3	27.8	26.9	16.6

Source: Rosstat.

The following conclusions can be drawn.

1. The increase in consumer prices for potatoes in 2020–2021 is associated with structural changes – a reduction in potato production by household sector that do not respond well to market conditions, and an increase in the role of market-oriented producers.

2. Agricultural organizations and peasant (farmer) farms do not replace the decline in potato production in the household sector.

3. With the current high level of world prices for agricultural products, which stimulate the production of primarily export-oriented (cereals, oilseeds) and import-substituting (sugar beet) crops, potato production growth is possible due to an increase in acreage in farms where the choice of crops for production competing for land with potatoes is limited. The growth of potato production in household sector is possible (if household incomes continue to fall), but is limited (due to the aging of the population, the loss of production skills by new generations of the rural population).

4. In order to stimulate the development of potato farms, it is necessary to shift the focus of state subsidies to producers that are competitive in price on the world market, but are still focused on the domestic market. First of all, for specialized farms; support for the construction of vegetable storages for small producers; reduction of the administrative burden to facilitate micro and small businesses; assistance to developments in the field of breeding and seed production to reduce the cost of modern varietal seeds for potato and vegetable growing. 