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**RUSSIAN ECONOMY IN 2021**

**TRENDS AND OUTLOOKS**

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

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### **4.3. Russian industrial sector in 2021** (based on business survey findings)

This Chapter has been prepared on the findings of business surveys of industrial enterprises, which have been conducted by the Gaidar Institute using a European harmonized method in monthly cycles since September 1992.

Business survey questionnaire contains a limited number of questions (not more than 15—20). The original composition of questions of the IEP questionnaire was developed in 1992 on the basis of recommendations from the Organization of Economic Cooperation and Development that monitor business surveys in all countries of the world. Present IEP business questionnaire numbers not only the minimum set of questions recommended by OECD but includes other questions developed on the many years' experience of monitoring the state of the Russian economy and allowing to better understand the features of the dynamic and state of the industry. The analysis of the 2020 crisis and the vigorous exit of the Russian industry from it in 2021 once again demonstrated the advantages of business.

1 This section was written by *Tsukhlo S.V.*, Candidate of Economic Sciences, Head of the Business Surveys Laboratory, Gaidar Institute.

The questions in the business survey questionnaire deal with actual and projected changes in the key indexes of enterprises performance as well as with assessment of the current state. Enterprises are offered to give responses across scale “go up”, “no changes”, “go down” or “above normal”, “normal”, and “below normal.” We use specific derived index, which we call balance, for the analysis of business surveys’ findings. Balances are calculated as difference between the percent of those who answered “go up” (or “above normal”) and percent of those who answered “go down” (or “below normal”). The obtained difference allows us to present responses to each question by one number with “+” or “-“. Business survey questionnaires practically lack classic quantitative questions (customary for economists).

A simple construction of questions and responses gives the respondents the chance to fill out questionnaires quickly and without turning to consult documentation. It is paramount that the respondent at each enterprise be a manager of the highest rank having complete idea about the state of affairs at the enterprises and be directly involved in the administration.

#### 4.3.1. Q1 2021

In January 2021, demand quite expectedly exhibited negative dynamics under the influence of a large and extremely unusual for the economy set of factors. The balance of actual sales change decreased by 10 points, which looked modest against the expected 30 points decline a month earlier. Most likely, the rigidity of lockdown measures, successes of both the domestic medical science and pharmaceutical industry allowed the country as a whole and the industry in particular to avoid a negative epidemiological scenario at the beginning of the year. The same circumstances ensured recovery of demand forecasts after the December collapse. In January, they regained 12 points out of the 30 points lost a month earlier.

In January 2021, the Russian industrial sector tried to abandon the policy of minimizing stocks of finished products. The share of responses “above normal” rose to 8% after reaching an all-time high of 5% in December 2020 (since March 1992!). Such dynamics of the index testified to the confident control of enterprises over their stocks and to their minimum hopes for the realization of positive forecasts. On the other hand, this is the second crisis that the industry “passes” without the crisis growth of the estimations “above normal”. The events of 2015—2016 epitomized the first crisis that was unproblematic in terms of stocks of finished products. In January 2015, (i.e., at the beginning of the crisis), the proportion of “above normal” responses fell to a near historic low at the time, while the proportion of “below normal” responses rose to a 4-year high. As a result, that crisis, for some reason, commenced for the industry with a lack of stocks of finished products.

The industry’s human resources policy at the end of 2020 and the beginning of 2021 — early 2021 demonstrated greater resilience to the influence of the actual and expected epidemiological situation. From September 2020, businesses switched to hiring and maintained this positive trend in early 2021. In December,

the industrial sector reported the most intensive recruitment of workers for the second decade of the 21st century. In January 2021, the balances of both actual and expected changes in the number of employees dropped, however remained at the level of absolutely non-crisis levels.

In January 2021, the industrial sector reported such a robust increase in its prices compared to the previous month's mark, which surveys have not recorded for 10 years — since January 2011. However, a similar result (+31 points after seasonal clearance) was achieved in January 2015 — after, as we recall, the devaluation of December 2014. In 2020—2021, there was no comparable one-step devaluation of the ruble. However, the industrial sector was forced to increase the balance of actual changes in its prices from +10 in December to +31 points. Meanwhile, price forecasts of enterprises in December 2020 did not foresee such a rise in prices. Moreover, in December the balance of expected price changes went down from +20 points in November to +6.

Following January's slump, the sales growth rate in February fully recovered and reached the post-crisis maximum registered in November 2020. Amid clear successes against the Covid, the industry reported a continued vigorous recovery in demand for domestic products. The balance of sales forecasts also continued to recover.

In February, the Russian industrial sector boasted of an upbeat output growth that had halted in January. The balance was positive again and reached +9 points, which was so far inferior to the November-December 2020 index. However, the resumption of the positive dynamics of industrial production combined with the consolidation of optimistic output plans in February indicated the readiness of the industrial sector to continue its vigorous exit from the viral crisis. This point was also confirmed by the continuation of the actual recruitment of workers discharged during the viral crisis in other sectors of the economy. The hiring plans, which peaked in December 2020, retained their non-crisis optimism in early 2021 as well — the industry was determined to continue selecting from the labor market the candidates needed by domestic industrial enterprises and unwanted in the crisis in other sectors of the economy.

In the context of the Covid crisis and lockdown, which dealt a crushing blow to the service sector, the Russian industry was able to maintain, according to its own estimates, quite competitive wages even at the peak of the crisis (April 2020), brought the share of normal wage estimates in July 2020 to an all-time maximum (85%) and even in early 2021, when the service sector began to recover, 81% of industry considered their wages as normal. Thus, there was no crisis decrease in wages in the Russian industry during the 2020 crisis.

The acceleration of inflation in late 2020 supported high industry inflation expectations at the beginning of the new year. In January 2021, the balance of expected price changes reached a 6-year high and remained at this level in February.

In January-February, the Russian industrial sector reported the continuing tightening of its lending terms by the banking system. In February 2021, the share of enterprises with normal credit availability had already dropped to 55%,

after hitting 69% in August 2020, having reached the pre-crisis level. The crisis minimum was recorded in May 2020 and amounted to 46%. The tightening of credit terms for the industry was coupled with a decline in the rate offered to businesses. In February 2021, this index fell to 8.6% per annum in rubles.

In March, the positive demand dynamic for the industrial products continued. The demand continued the post-crisis recovery, which began (according to the traditionally underestimated estimations of the enterprises) only in October and was traditionally interrupted in January, a traditionally difficult vacation period for the Russian economy. Sales forecasts were gaining optimism throughout Q1 after the December dip, provoked by expectations of an upsurge in disease incidence. The recovery of sales growth in February-March after the January decline stabilized the satisfaction with demand. In February-March, it was considered as normal by 61% of the enterprises. The best result after the crisis collapse in April 2020 (when the proportion of the normal estimations of the demand plummeted from 60% to 37% within a month) was obtained in November and came to 62%.

The positive balance of actual output changes, which remained in March, confirmed the conclusion about the transience of the viral crisis 2020. After the logical April (2020) failure of the index from -2 to -38 points, from May the balance began to recover unexpectedly for most observers and in July it became “positive”. Thus, it took the Russian industry only three months to achieve a positive growth rate (against the previous month). In 2008—2009, this period dragged out to 8 months, and in 2015—2016 the negative balance (reduction of output against the previous month) began to be recorded by surveys only from June 2015 for some reason and reached its peak (but very modest) values in August 2015.

If the personnel pessimism of enterprises amid a chronic shortage of qualified workers reported in 2020 was replaced by personnel optimism, the investment optimism according to the results of Q1 2021 did not replace the investment pessimism in the Russian industry. The balance of investment plans has remained negative since April 2020, although it approached the zero line.

#### 4.3.2. Second quarter

At the beginning of Q2, demand maintained its positive dynamics. Though the balance of sales fell after the February record, it remained an 8-year high — such an intensive growth of demand has not been registered by surveys since 2013. Note that back then in 2013, it was a one-time and, most likely, accidental growth of the index. Now the balance of actual sales hit the pre-crisis level already in July 2020, and in November it reached the positive values that have not been registered for a long time. Sales forecasts after the December (2020) dip continued to gain optimism, improving in April by another 3 points.

The continuing positive dynamics of actual sales and growing optimism of demand forecasts strengthened enterprises’ faith in the resumption of industrial growth and forced them to replenish stocks of finished products. The balance of inventory estimates after hitting a 20-year low in December 2020. By April, the balance of assessments of stocks increased by 12 points after reaching a 20-year low (which can be interpreted as the minimum hope for growth in demand)

but remained negative. There were still more “below normal” responses than “above normal” ones. The demand growth and the lack of stocks of finished products allowed the Russian industry to ramp up output from July 2020. This positive dynamics of output (growth against the previous month) was successfully maintained by enterprises throughout the first months of 2021.

The Russian industry inflation expectations continued to rise in April, adding another 4 points to the March result, repeating the record of 2010 and 2015. Since July 2020. (i.e., since the start of post-crisis output growth), the balance of enterprises’ price forecasts has gained 32 points, with the only exception in December, when industry, together with the whole country, expected a critical growth of morbidity and a second lockdown. It fortunately did not happen, but allowed industry to recover both actual price increases and plans for further growth.

The strong optimism of both the demand forecasts and the output plans supported the high demand for labor on the part of industrial enterprises. In April, the balance of hiring plans gained 3 points and reached its 13-year high - more optimistic plans in the Russian industry were registered in early 2008. Another feature of current recruitment plans of businesses remains their stability. Since November 2020, (i.e. for 6 months in a row already) the balance has been in the range of +8...+12 points.

The investment plans of the Russian industrial sector, which logically collapsed in April 2020, finally came out “in the plus” after 12 months. The recovery of this index was slower than other plans and forecasts. However, in Q2 2021 they became definitely positive, which was another sign of the end of the crisis 2020.

The March increase of the key rate by the Bank of Russia, according to April estimates of enterprises, had no effect on the minimum rate on ruble credits offered to the industry. Since February 2021, this figure has been staying at minimum levels and amounted in April to 8.6% per annum in rubles. The aggregate availability of credit (which includes not only the nominal rate, but also other terms of crediting), on the contrary, underwent significant changes in these months. In February, the index fell to a local minimum, almost hitting the crisis minimum, recorded in May 2020, which amounted to 46%. However, already in March banks began to facilitate the Russian industry access to borrowed funds, and in April brought normal (according to borrowers’ estimates) availability of credit to the pre-crisis level of 74%.

In May 2021, the demand dynamic for the industrial products, according to the enterprises’ estimates, remained positive, that is the sales in May as compared to April (the balance is positive), but to a lesser extent than in April as compared to March. However, this outcome was calmly accepted by businesses when the whole first ten-day period of the month was declared non-working. Satisfaction with May sales extended gains to 66% and dissatisfaction dropped to 28%, which was the best result since 2007. In May, the balance of estimates of finished products decreased again by 5 points, signaling the growth of the deficit of this type of accumulation in the Russian industry. Apparently, the actual dynamics of sales and output in the context of optimism of enterprises’ expectations and pessimism

of official forecasts did not allow industry to finally get rid of “defeatism” and move to confident growth, which requires a moderate managed surplus (positive balance of estimates) of finished products.

Nevertheless, from the beginning of 2021, the output forecasts demonstrated surprisingly stable optimism, staying for five months in a row in the interval of +18...+21 points. In other words, for almost half a year businesses were ready to spin the flywheel of the stable industrial growth. This desire was also supported by positive forecasts of demand and a lack of stocks of finished products. It should be noted that forecasts of changes in output at the enterprise level became positive as early as May 2020 — industry was ready to demonstrate a “rebound from the bottom” of the crisis as never before.

In May, industry inflation expectations rose by another 7 points, breaking the record of the 21st century (July 2008), and approached the post-default plateau of October 1998-October 2000. In those two years, the price forecasts of industry were steadily in the range of +38...+47 points with the average value of +44 points.

Recruitment plans in May underwent a significant adjustment. The balance declined from +11 points (the maximum since March 2008) to +5 points. That is the industry was ready to continue the recruitment, but less intensively. Such an adjustment was caused by the failure of the enterprises in the process of hiring the workers. In Q2 2021, the balance of the actual changes in the number of the staff dropped to zero (there was no increase in the number of staff), whereas the plans for these months suggested a rather intensive increase in the number of employees.

In May, Russian banks finally responded to the March and April increase of the Bank of Russia key rate - the minimum rate offered to the industry has increased from 8.6% (the all-time low) to 9.2% per annum. However, this circumstance had little effect on the final terms of borrowing. The level of normal (by estimates of borrowers from the Russian industry) availability of credit has declined from 73% (the eight-year maximum) to 71%. Having said that, the borrowing plans in Q2 2021 rose to +11 points after +4 points in Q1.

In June, the demand growth for the industrial products, according to the enterprises, continued. The balance of actual changes in sales remained at the level of +4 points, demonstrating stability throughout Q2. The resulting value was not as good as in February and March 2021 results, but significantly exceeded the sales growth rates recorded in 2018—2019. The positive demand dynamic was observed by the enterprises from November 2020 with the only and logical exception in January 2021. The recovery to the pre-crisis values of the index took place in July 2020. The vigorous post-crisis sales recovery in 2020 and the five months’ period of the demand growth in 2021 led the satisfaction with the demand to the astonishing 70% by the mid — 2021. The above value is only 2 p.p. behind the absolute record of all previous 349 surveys of 1992—2021. In August 2007, 72% of respondents estimated the demand for their products as normal. In March 1996, there were 45 of such estimates.

In June, the shortage of stocks of finished products in the warehouses went up again. The balance of estimates dropped to -9 points. Enterprises were unable



to replenish their stocks even in the context of positive dynamics of actual sales and growing optimism of their own demand forecasts. The balance of estimates of finished goods inventories turned negative in August 2020, reached a local minimum in December 2020, and for 11 months in a row testified to the uncertainty of businesses regarding the end of the viral crisis of 2020. However, the above span is a far cry from the record 30 months of inventory shortages reported by the IEP surveys after the 1998 default.

In June, the plans of changes in output added another 6 points, breaking the previous record of November 2017 and turning out to be a ten-year high; there had not been such optimistic intentions concerning industrial production since June 2011. It should be noted that the balance of output change plans became positive as early as May 2020. Thus, in the second month of the 2020 Covid crisis, the industry was ready to ramp up the output volumes as compared to the previous month. The enterprises persistently stuck to this attitude, with the only and logical exception in December 2020.

The presence of current and expected personnel issues in the Russian industrial sector is confirmed by direct assessments of enterprises. Thus, 26% of enterprises referred to the shortage of staff as the factor restraining the output growth in Q2 2021, whereas in Q1, 16% of such responses were received. As a result, the shortage of qualified personnel took the first place among the resource restrictions according to the producers' opinion.

At first glance, prospective estimates of the supply of personnel for the expected changes in demand in Q2 2021 were not so pessimistic. Only 13% of enterprises reported the expected shortage of staff. Apparently the industry retained the hope to replenish the ranks of its employees by means of hiring. The estimates to the contrary (excessive number of employees) were also given by 13% of enterprises. The traditional balance of estimates was equal to zero. And such situation with the provision with staff was registered by surveys for the third quarter in the row.

The investment plans of the Russian industrial sector demonstrated surprisingly stable optimism throughout Q2. Having come out in April 2021 for the first time "in the plus", the balance of investment intentions up to June inclusive maintained the value of +10 points. As a result, the satisfaction with the investments was fully restored and even reached its historical maximum of 69% at the end of Q2 2021.

#### 4.3.3. Third quarter

In July, according to the estimates of enterprises, the sales continued to grow, the balance of the index retained a positive value (i.e., in the reporting month more products were sold than in the previous month). After having reached in June its multi-year maximum (since June 2008), sales forecasts were slightly adjusted, having declined by 3 points. Apparently, the traditionally vacation August and the official announcement by the WHO about the beginning of the third pandemic wave made the industrial sector reduce the optimism of demand forecasts.

From August 2020, the Russian industry has been facing a 12-month shortage of stocks of finished products. By the end of the summer of the crisis year (2020),

enterprises confidently got rid of excess inventories, the maximum of which took place in the pre-crisis March 2020. The rapid revision of inventory estimates ensured the unusual nature of the viral crisis, the industry decided to build up its inventories in the face of lockdown and logistical issues. The reluctance of businesses to bring their stocks of finished products to a manageable surplus in the context of the obvious growth in both demand and output spoke to the uncertainty of the industry in the near end of the unusual 2020 crisis.

In July, the Russian industrial sector once again spurred price growth. Following the June decline by 3 points, in July the balance of the index moved up by 6 points and hit a 23-year maximum. According to the IEP surveys, the output prices of businesses have not increased so intensively since the post-default October 1998. Meanwhile, inflation expectations of the industry declined for the second month in a row. Over June-July, the index lost 14 points out of the 43 points gained by May 2021. The May 2021 result remains a record for the 21st century. In the 1990s, the balance of expected price changes in the Russian industry hit +99 points.

Since a three-month hiring freeze, when the balance of actual changes in the number of workers in April-June made a symbolic +1 point, in July the industry managed to increase the hiring rate up to +5 points. Having said that, the plans of the enterprises envisaged an increase in the number of employees with the rate of +11 ... +12 points. The obvious issues in Q2 2021 with the recruitment of the personnel forced the industrial sector to revise the estimates of the provision with the qualified personnel due to the expected demand changes at the beginning of Q3. The balance of these estimates (“more than enough” minus “less than enough”) plummeted by 15 points between April and July. As a result, there appeared a shortage of staff in the industry, the most large-scale since July 2008. And such a sharp decrease in the estimates has never been registered by the surveys during a quarter of the century of the monitoring of this index.

In August, according to the businesses’ estimates, demand for industrial products showed a sharp rise. The balance of actual changes in sales increased in August by 8 points at once after relatively low values in March-July. As a result, 78% of enterprises evaluated the volumes of sales of industrial goods achieved by August as normal, the proportion of unsatisfactory estimates of the demand (“below normal”) dropped to 17%. The forecasts of the enterprises’ demand have undergone the same decisive positive adjustment. In August 2021, the balance of expected changes in sales added 12 points.

The demand growth, which lags behind output, and the logical caution in the context of the ongoing pandemic continued to keep manufacturers from decisively restocking their finished products inventories. In August, the shortage of these stocks went up again, while the scale of excesses, on the contrary, declined to an all-time low: only 5% of enterprises evaluated their stocks of finished products as “above normal”. By the end of three quarters of 2021, 18% of enterprises had the deficit of raw materials and supplies (a 10-year maximum), and only 2% of producers had the excess of these reserves (the absolute minimum of this index in 1993—2021). As a result, the traditional balance of estimates of industry’s

provision with raw materials and supplies dropped to -16 points, which was a 12-year minimum.

In August, the Russian industry proceeded to a definitive slowdown in the growth of wholesale factory prices. Over the month, the balance of price changes (growth rate) shed 17 points. At the same time, over the preceding 12 months the index increased by 50 points. The August deceleration of price growth is not the first attempt of enterprises to stop the inflationary wave triggered by the lockdown and support of the affected sectors of the economy by the authorities. For the first time the industry tried to restrain its price growth in Q4 2020, and then in February and June 2021. However, all the previous attempts were insignificant and were immediately replaced by a more significant index growth.

Clear problems with recruitment in Q2 2021 forced the Russian industrial sector in July-August to take decisive measures to restore recruitment — the balance of actual changes in the number of employees rose to +6 points after the 0...+2 points registered in Q2. However, this result is far behind the recruitment plans (+10...+13 points) that the industry had for these months. In September-October the industry planned to increase the hiring rate up to +16 points.

The industry reported a sharp slowdown in demand growth in September. The balance of changes of actual sales shed 9 points. This circumstance immediately affected the satisfaction with sales volumes: the share of “normal” evaluations fell by 7 points. However, it should be kept in mind that by August this index extended gains to an astonishing 79%, which is an all-time high, towards which the industry has been persistently going since May 2020, with an eye on other sectors of the economy. Probably, it is the look at other sectors of the economy, which suffered very much during the viral crisis, that brought the satisfaction with demand to such heights in the Russian industrial sector.

However, sales issues did not affect the estimates of finished products inventories. Moreover, in September the industry reported a growing shortage of stocks: the balance of their estimates declined again and reached -12 points. Thus, extremely cautious production policy and the obvious revision of the approaches to the estimates of stocks in the context of lockdowns, logistical issues and price growth for all and everything have saved the Russian industry from the problem of excessive stocks, traditional and extremely painful for the 90s of the 20th century, and brought to the fore the issue of forming the stocks (both the finished products and the raw materials) sufficient to support production and maintain the sales.

In Q3 2021, the industrial sector’s inflation expectations stabilized at +29 points after the May record. Consequently, the enterprises planned to maintain the growth of factory prices (the balance has a “+” sign), but without acceleration (the balance did not go up). The balance of actual price changes stabilized only in August-September after the July record. The growth rate of prices in July 2021 was the maximum one since the default of 1998. Then (in October 1998), the index after the August devaluation of the ruble in three months increased from -12 points to +42 points. As a result of a gradual pumping of money into the economy,

the balance has been growing during the year 2020—2021: from -9 points in July 2020 to +40 points in July 2021.

As a result of the authorities' successful struggle against unemployment, the Russian industry faced a shortage of workers. This circumstance forced enterprises to switch over to robust and quite successful (as compared with the failing results of the 2nd quarter) recruitment. However, the industry was ready to continue the hiring. In September, the balance of plans added three more points and hit the absolute maximum — there had never been such high optimism of such intentions registered by our surveys before.

The July increase in the key rate had no effect on the lending rate offered to the Russian industrial sector in August. Like a month earlier, the banks were ready to lend to enterprises at best 9.4% per annum in rubles. However, in September, the banks raised the minimum rate offered to the Russian industry to 9.8% per annum in rubles. The increase in the rate logically reduced the normal availability of credit for industry from 70% to 63%. In April–August 2021, this index reached the pre-crisis level and stood in the range of 69—73%.

#### 4.3.4. Fourth quarter

According to enterprises' estimates, the growth of demand for industrial products, which commenced in early 2021, continued in October. There has not been such a long positive dynamics of sales for a long time in the Russian economy. As a result of 10 months of 2021, the balance of the actual changes in demand made +8.7 points. The best value of this figure had been registered earlier only in 2007. As a result, the satisfaction with the sales according to the data for 10 months of the year moved up to 67% and considerably exceeded the surprisingly non-crisis result of 2020. At that time, 53% of enterprises considered the demand for their products as normal on average for the year after 56% in 2019. A similar surprising result was recorded in 2015, when the share of normal assessments remained at the level of the previous three non-crisis years and amounted to 52%.

Positive demand dynamic combined with a cautious production policy still spared Russian industrial sector from the problem of excessive stocks of finished products. In September–October 2021, the share of “above normal” estimates stood at 5%, which is a historic low of all 352 surveys. This low was first recorded in November 2020. In this context, the balance of estimates of finished stocks (“above normal” — “below normal”) decreased to -13 points and almost reached the previous local minimum of -14 points rerecorded in December 2020, when the industry was preparing for the consequences of the second wave of coronavirus.

The peculiarities of the Covid crisis have spared the Russian industry not only from surplus stocks of finished products, but also from the overhang of idle capacities, as well as aggravated the shortage of personnel. In Q4 2021, businesses drastically revised their estimates of the provision with the capacities and the personnel in connection with the expected changes in demand. As a result, the overhang of excess capacity was replaced with the near-record shortage of capacities, and the shortage of personnel intensified and repeated the record of 2008. The deficit of production capacities (that is the excess of the

estimates “less than enough” over “more than enough”) was earlier registered in the Russian industry only in 2007—2008 and hit the maximum (-10 points) in the first and the second quarters of 2008. Neither before nor after 2007—2008 has the Russian industry experienced a shortage of capacities. In Q4, the deficit of capacities was estimated by the balance to be -8 points, whereas a quarter before that, there had been a surplus of +6 points. Meanwhile, the shortage of workers is a chronic disease of the Russian industry. Enterprises faced it for the first time back in 2000. The negative average annual balances of the estimates of the provision of industry with personnel were received for 15 out of 26 years, during which the monitoring had been going on. At the beginning of Q4 2021, 26% of businesses reported the shortage of workers. The record of this index (27%) was registered in Q3 2007.

In the context of a record shortage of personnel, the Russian industrial sector continued to recruit and did not reduce the optimism of its hiring plans. In October, the rate of actual hiring grew up to +14 points and broke the 2007 record, when the index reached +10 points. The catastrophic situation on the labor market forced the enterprises to keep the robust recruitment. In October, the hiring plans remained at the September level, which is the record-breaking for the whole period of the monitoring of this index in 1998—2021.

In November, businesses reported a slowdown in demand growth. The balance of actual changes in sales fell again after the October surge to a near 14-year high. This being said, demand forecasts continued to lose optimism for the third month in a row. In September–November, the balance of sales forecasts lost nine points out of the +24 points accumulated by the Russian industry by August. However, it was only in November that the Russian industry began to adjust its output plans downward. Apparently, a stable (for many months) shortage of stocks of finished products supported both actual output and plans of enterprises even against the backdrop of the continuing struggle against the coronavirus. The shortage of finished goods inventories under the influence of the negative adjustment of demand forecasts decreased by 5 points in November. However, the balance of assessments (“above normal” minus “below normal”) remained negative — the industry was still dominated by enterprises with a deficit of stocks.

In November, inflation expectations of the Russian industry under the influence of a combination of factors (which included a decisive October increase in the key rate by the regulator) did not undergo any significant changes. According to the data received by December 1, the balance of expected changes in prices rose only by 3 points. Thus, the peak of inflation expectations in the Russian industry remained in May 2021, when the balance of expected price changes reached +43 points. In November, the index stood at +31 points and was significantly inferior to the level of inflation expectations in most European countries.

In 2021, enterprises reported the most robust growth of costs since the post-default 1999. At the end of the year, the balance of actual changes in the cost of industrial production made +46 points, repeating the 2008 result. The record of the index for the period of its monitoring in 1997—2021 made

+51 points. The actual result on the growth of the cost of production in 2021 coincides with the forecast changes in costs, which surveys registered on a quarterly basis during the year. However, the final 2021 forecast (+46 points) surpassed the previous local high of 2008. (+42 points), also falling short of the 1999 record (+53 points).

In November, the Russian industry decreased the rate of recruitment after reaching a historical maximum of +14 points in October (the difference between the shares of responses “growth” and “decrease”). The previous maximum was recorded in 2007 and amounted to +10 points. In the context of chronic staff shortage, which was aggravated by the quick recovery from the Covid crisis, the enterprises continued to recruit personnel. The plans for the recruitment of workers, which reached the historic maximum in September 2021 and lost only 1.5 points in October–November, testified that the industry was ready to continue taking personnel from the shrinking Russian labor market.

#### 4.3.5. 2021 is the year of the Russian industry’s exit from the viral crisis of 2020

At the end of 2021, the demand dynamic demonstrated impressive results. The average annual balance of the actual changes of sales after the crisis 2020 value of -13 points moved up to +8 points and became the best since 2007. In 2021, the demand forecasts went up to +14 points after the -5 points received in 2020 and also became the best for the period of 2008—2021. Vigorous and surprisingly successful overcoming of the crisis by the Russian industry resulted in the satisfaction with the sales in 2021 reaching the record figure of 68%. The same result was obtained in 2007. Note also that the last two crises (2015 and 2020) did not lead to a crisis collapse of satisfaction with demand at the level of enterprises. The share of estimates “normal” in these years did not fall below 50%. Whereas in 2009, this figure plummeted to 28%, and in 1994—1998 it was in the range of 8—14%.

In 2021, according to the estimates of enterprises, output showed the same surprising growth as demand for industrial products. The balance of actual changes in output (the share of answers “growth” minus the share of answers “decline”) increased from -2 points in 2020 to +14 points in 2021. The latter value was the best for the period 2011—2021. The optimism of the output plans also demonstrated growth in 2021 and was also the best since 2010.

According to the results of the post-crisis year 2021, there was a shortage of stocks of finished products, i.e. there were more “below normal” responses than “above normal” ones. Such a situation has not been registered by surveys since 2000. However, the balance of estimates of stocks in the crisis year of 2020 was also quite non-crisis — a modest +1.5 points. In the crisis year of 2015, the situation was also strange: the balance was +3 points and turned out to be better than the result of the pre-crisis year of 2014, when the excess of reserves was estimated by enterprises at +6 points.

In 2021, the pricing policy of the Russian industry underwent radical changes. The balance of actual price changes showed a record growth at the end of the year:

from +1 to +29 points. In 1999, the growth of this index was from +7 to +35 points. The balance of expected price changes grew in 2021 from +8 to +32 points and repeated the record of 2009, when this balance increased from +19 to +43 points.

The recovery of the Russian economy after the Covid crisis of 2020 required from the Russian industry intensive hiring. And the restrictions imposed by the authorities on the activities of other sectors of the economy allowed enterprises to bring the recruitment of new workers to such an intensity, which was not registered in the period of monitoring of this index in 2003—2021.

However, the chronic shortage of skilled workers forced the industry to plan a record hiring in 2021. The balance of expected changes in the number of workers repeated in the past year the absolute maximum of this index registered in 2000. Both then, on the way out of the prolonged crisis of the 1990s, and now the balance of expected changes in the number of workers reached +13 points.

Despite of intensive recruitment, the Russian industrial sector ended 2021 with a negative balance of supply of personnel of the expected changes in demand. At the end of the year, the index dropped to -9 points. The shortage of staff was registered even worse only in 2007 and 2008. In 2007—2008, the industry also had a capacity deficit. In 2021, no such deficit was registered (the average annual balance was +7 points), but in Q4 2021 the figure plummeted from +6 to -8 points.

The credit crisis of 2020 in the Russian industry turned out to be shallow, apparently due to the support of the authorities. The availability of credit at the end of the year decreased only by 5 p.p. and recovered to inter-crisis levels in 2021. The average minimum rate offered by banks to industry was able to fall by the end of the crisis year 2020 to 8.8% per annum in rubles, which was a historic low. However, the active use of the key rate by the Bank of Russia in the fight against inflation raised this index to 10.2% in Q4 2021.

The short-lived Covid crisis of 2021 did not (could not) affect the financial and economic situation of enterprises. The sum of evaluations “good” and “satisfactory” by enterprises of their condition (91%) remained in 2020 at the level of 2019, which, moreover, was an all-time high of 1995—2019. In 2021, the cumulative figure reached another record high of 93%. Thus, at the end of 2021, only 7% of Russian industrial enterprises evaluated their financial and economic situation as “bad” or “extremely bad”. In 1995—1998, such estimates stood at 75—77%.

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