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The review "Russian Economy. Trends and Outlooks" has been published by the Gaidar Institute since 1991. This is the 44th issue. This publication provides a detailed analysis of main trends in Russian economy, global trends in social and economic development. The paper contains 5 big sections that highlight different aspects of Russia's economic development, which allow to monitor all angles of ongoing events over a prolonged period: the monetary and budget spheres; financial markets and institutions; the real sector; social sphere; institutional changes. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts confirming the conclusions.

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Russian industry in 20221

This section is based on the materials of opinion polls involving managers of industrial enterprises conducted by the Gaidar Institute for Economic Policy (IEP) according to the European harmonized methodology in the monthly cycle since September 1992.

The survey contains a very small number of questions (not more than 15–20). The starting questions of the IEP questionnaire were prepared in 1992

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based on recommendations of the Organization for Economic Cooperation and Development, which "supervises" the opinion polls in all countries of the world. The modern questionnaire of the IEP surveys consists not only of the minimum set of questions recommended by the OECD, but also includes other questions developed in light of many years of experience in monitoring of the situation in the Russian industry and allowing a better understanding of particular dynamics and condition of the industry. A systematic analysis of the situation in the Russian industry based on monthly opinion polls using a modified questionnaire amid "sanctions war" once again demonstrated the advantages of our data source.

Questions of the opinion polls traditionally concern actual and expected changes of the main indicators of the enterprise's activity, as well as the estimates of their current situation. Enterprises are invited to respond to questions on a scale of "growth", "no change", "reduction" or "above the norm", "normal", "below the norm". When analyzing the results of opinion polls, they used a derived index called a balance. Balances are calculated as the difference between the percentage responded "will grow" (or "above the norm") and the percentage responded "will reduce " (or "below the norm"). The resulting difference allows us to present the distribution of answers to each question by a single number with a "+" or "—" sign. There are practically no classical quantitative questions (familiar to economists) in surveys.

Simple design of questions and answers allows respondents to fill out the questionnaire quickly and without reference to documentation. It is fundamentally important that the respondent at each enterprise was a manager of the highest possible level having a complete picture of the situation at the enterprise and directly related to its management.

3.3.1. Russian industry in January-February 2022

The traditional January decline in demand for industrial products in 2022 was not as strong as in previous years. The initial (before the exclusion of the seasonality) balance dropped only to -14 p.p., whereas in the inter-crisis period the January balances stayed in the interval of -42 to -21 p.p. The exclusion of the seasonal factor demonstrated continuing growth in demand and even a bit more intensive than in December 2021: +12 p.p. after +10 p.p. It should be noted that in August and October 2021 this indicator went up to +17 p.p. However, at that time the absolute maximum (1992—2022) of satisfaction with the volumes of sales was registered: 79% of enterprises considered their volumes as normal. However, the subsequent slowdown in demand growth lowered the share of normal estimates to 65% by December. In January 2022, the figure was 67%.

In the same August 2021, the Russian industry formed extremely optimistic forecasts of changes in demand. The balance reached +23 p.p., which is a little less than the absolute maximum of +25 p.p. shown in March 2008. But then the optimism of the sales forecasts started to decrease and stabilized at +12 p.p. in December 2021 — January 2022.

Even with the obvious growth in demand and high optimism of sales forecasts, Russian industry did not bring its stocks of finished products to the manageable surplus that was observed in previous periods of positive industry dynamics. Since August 2020, the balance of inventory estimates has been negative: industry responses "below the norm" prevail over "above the norm" responses. A longer period of the stocks shortages was registered after the default of 1998. At that time enterprises hesitated for 30 months to bring their stocks to a reasonable level of redundancy due to uncertainty about the sustainability of the industrial growth that had begun.

However, lack of stocks of finished products allowed enterprises to keep high optimism of their output plans even in the context of negative adjustment of demand forecasts. In January 2022 the balance of expected changes in production reached +34 p.p., which became the best value of the index since June 2008.

With increasing optimism of output plans, enterprises realized that Russia's demographic problems combined with a hypertrophied higher education system, put the lack of qualified personnel at the top of the list of constraints to industrial growth. This problem was cited by 44% of enterprises at the beginning of 2022, whereas at the beginning of 2021 it was cited only by 16%. There was very little left till the record of July 2008 (49%) of the fast-growing economy and industry after the Covid crisis.

The internal demand could share the first place with the staff shortage only as a result of the growth of its citation from 37% in October 2021 to 43% in January 2022. The export demand was considered by 22% of enterprises as a constraint for the growth of output. The uncertainty of the current economic situation and its prospects in the environment of the next wave of morbidity increased its negative influence on the Russian industry from October to January by only 4 p.p.: after 35% (the post-crisis minimum) it was cited by 39% of enterprises.

However, the factor "weakening of the ruble and appreciation of imported equipment and raw materials" demonstrated the highest growth in the number of citations during this period (one quarter). After 15% in October 2021 the weak ruble at the beginning of 2022 was considered as an obstacle by 35% of the enterprises. This growth of the weak ruble negative influence is caused by the shortage of capacities in the Russian industry under the obvious growth of the output and growth of optimism of its plans, growth in prices for imported equipment and raw materials, as well as the insignificant success of import substitution. Indeed, the shortage of equipment restrained the growth of the output at the beginning of the year at 22% of the enterprises (this is the maximum number of the references since 2008). The shortage of investment in 25% of enterprises (this is the maximum since 2014, beginning of this factor monitoring).

In January 2022, inflation expectations in the Russian industry resumed their growth. The balance of the expected changes of producer selling prices rose by 3 p.p. over a month after an increase by the same 3 p.p. over September-December 2021. It should be noted that a year earlier (in January 2021) this indicator went up considerably: by 21 p.p. after the December failure, when the industry (as well as the whole country) expected another surge of incidence and a decline in demand in case a new lockdown was announced. Growth in the incidence of the next strain of coronavirus in early 2022 was perceived more relaxed by both Russian

authorities and Russian manufacturers. The smaller scale of hospitalization, as well as of mortality and the experience of already two years of work under pandemic conditions also had its impact.

At the beginning of the year, Russian industry reported the most significant shortages of production capacity and labor force due to expected changes in demand. Balance estimates of enterprises securities with these resources fell to the absolute minimums of the whole monitoring period, which began in 1993 and 1996. Even in 2008, the scale of the deficit was smaller.

The unprecedented labor shortage forced companies to plan equally unprecedented hiring. In January, these plans reached an all-time high of +24 p.p. surpassing both the post-crisis record of September 2021 and the pre-crisis record of January 2008.

In February, according to the latest estimations of enterprises before the beginning of the SMO, the slow-down of the demand growth continued. The balance lost another 6 p.p. and fell down to the values registered in the spring of the previous year. However, the positive value of the February balance testified that the demand for industrial goods continued to grow.

Moreover, in February there was a sharp revision by enterprises of their estimates of current sales on the scale of "above normal", "normal" and "below normal". The share of "normal" answers increased by 11 p.p. reaching 79% and repeating the absolute record of August 2021. The previous record of 14 years (sustained for 168 months) was registered in August 2007 and amounted to 72%. The surge in sales satisfaction occurred in the context of a slowdown in demand growth. Such a combination indicated that by February 2022 the industry got rid of the inflated expectations formed during the "rebound from the peak of the crisis" demonstrated by the industry in 2020—2021. Indeed, demand forecasts fell by another 6 p.p. in February and the decline from August 2021 (a multi-year high) was 17 p.p.

Meanwhile, estimates of stocks of finished products showed that enterprises did not expect a sharp deterioration in the following months. The balance of these assessments remained negative from August 2020: the responses "below the norm" exceeded the responses "above the norm". In other words, until February 2022, there remained a shortage of stocks in industry, which supported both the current growth in output and the production plans.

The output plans, although they dropped by several p.p. in February after reaching their multi-year maximum in January, remained positive and the enterprises were ready to grow the volume of industrial output. Historically (1996—2022) the record shortage of labor force registered by surveys in January 2022, forced Russian industry to increase hiring plans in February as well. Such an optimistic balance index related to the expected changes in the number of workers was not registered even in 2008.

3.3.2. Russian industry under the first stage of SMO

During the first month of the "total war" declared on the Russian economy by French Minister Bruno Le Maire, demand for industrial products quite expectedly showed a decline, but not as "crisis" as in the previous actual crises of the 1990s,

2008—2009 and 2020. The March 2022 result was comparable with the worst result of 2015, which for the industry was just another year of stagnation in 2012—2016. Such non-crisis growth in demand amid "total war" explains the noncrisis assessments of the March sales volumes by the Russian industry. They were recognized as normal by 64% of enterprises. This result is 15 p.p. worse than the result of February 2022, but it is comparable with the best values of 2017—2019.

The output of industrial products in March also showed no crisis dynamics at all: the balance of the actual index changes became negative (the output was lower than in February), but surprisingly small in magnitude, i.e., only -5 p.p. In April 2020 the same balance dropped to -35 p.p., in November 2008 to -38 p.p., in September 1998 to -31 p.p. and in 1994 to -53 p.p.

The desire of enterprises to replenish stocks of finished products provided support to output in the first month of the next crisis. The experience of the Covid crisis of 2020 clearly showed to Russian manufacturers the relevance of the proverb "store is no sore" when shipment of components and their movement across state borders were limited for medical reasons.

Another reason to produce to stock was again the devaluation of the ruble and a surge in inflation. In such a situation the enterprises preferred most likely not to curtail the production in the crisis sharp way, but to use the Russian components which were not yet much more expensive and the imported ones available on the territory of Russia. However, the result for domestic producers seemed unsatisfactory: there was still a shortage of stocks of finished goods in the industry.

In March, Russian industry demonstrated a decisive growth in its prices. The balance of their actual changes increased by 26 p.p. for the month and reached the level (the intensity of growth to the previous month), which was not registered by surveys since October 1995. All records of this indicator in the XXI century and the post-default record of October 1998 were broken.

Enterprises' price forecasts assumed further growth of selling prices in April-May. Inflation expectations of the Russian industry increased in March by modest 20 p.p., however, due to the high values of February the March level made +51 p.p., having renewed the record of the XXI century. Though, this level could not surpass the local maximum of post-default September 1998 and even less the absolute record of June 1993. Then, the balance reached +99 p.p.

In March, Russian industry reported layoffs, and the balance of actual changes in employment became negative for the first time since September 2020, but very little for the beginning of the crisis and comparable with the period of industrial stagnation in 2012—2016. Hiring plans, on the other hand, fell in March the way they have never fallen before. They lost 46 p.p. in one month changing the historical maximum of January-February 2022 to pessimism, which yielded only to the crisis lows of 1998 and 2009.

The investment plans of enterprises also experienced an unprecedented decline in March. After a remarkably stable and high 11-month optimism, the desire to invest in domestic production lost 46 p.p. in the first month of the "total

war" between the West and Russia and fell to the low level of the investment crises of 2015—2016 and 2020.

In April the actual dynamics of the demand demonstrated the decline slow-down, i.e., the balance grew but remained negative, that is the sales (according to traditionally underestimated producers' assessments) continued to decrease but not as intensively as in March. At the same time both the March and April values were far from the crisis levels of the 1990s, 2008 and 2020 index.

Demand forecasts after a record dip in March to a record level of pessimism showed a record growth in April. They gained back 32 p.p. from 43 p.p. lost a month earlier. Although the balance of April remained negative (that is the enterprises still expected the decline of the demand), its expected decline in May-June should not have been so catastrophic as compared with the March forecasts.

In such a situation the April balance of the enterprises' production plans demonstrated a logical but still surprising growth by 30 p.p. after the March drop by 50 p.p. Hence, this indicator became positive, i.e., the industry was ready to switch over to growth in production as early as May-June. A similar surge of optimism was registered in May 2020. A surprisingly successful rebound from the bottom of the viral crisis began at that time.

The negative balance of estimates of the finished products stocks, which has persisted in Russian industry since August 2020, demonstrated that the deficit of stocks shaped during the viral crisis, has smoothly turned into the current geopolitical crisis of Russian industry. Both in 2020 and 2022, enterprises feared that worsening problems related to the availability of raw materials, supplies and components could result in a halt in production even if demand remained unchanged. Estimates of stocks of raw materials and supplies also demonstrated enterprises' concern about their ability to ensure normal (i.e. satisfying demand) production processes in the context of sanctions restrictions. The balance of estimates of these stocks fell to a low of 2010—2022.

In April, enterprises maintained intensive growth in prices, even slightly more intensive than in March: the balance increased from +50 p.p. in March to +54 p.p. and reached the level of October 1995. The absolute record for the whole period of its monitoring since October 1994 was registered in December 1994 and amounted to +84 p.p. However, a sharp decline in inflation expectations in April indicated that the Russian industry was not ready to reach the record values of actual price growth of 1994. Inflation expectations of enterprises lost 26 p.p. in April and returned to the "pre-war" level of August 2021 — February 2022.

After a record intensity of hiring at the beginning of the year, which, however, lagged behind plans, March saw a logical crisis decline in employment. However, the March balance was far from its "normal" crisis values recorded in 2008—2009 and 2020. In April the balance of the index increased from -8 to -5 p.p., i.e., the enterprises continued to reduce the staff, but less intensively. At the same time, the actual dynamics of the number of employees of Russian industrial enterprises in 2022 significantly differs from the industry's intentions in this area. Whereas the pre-war hiring plans were full of unjustified optimism, in the first months of the SMO one can speak of unfulfilled pessimism. Thus, enterprises revised their

intentions in March by a record amount from a record +21 p.p. to -23 p.p. with the actual April balance of -5 p.p.

After the April slow-down of the drop in demand in May the intensity of the sales' decline grew again and returned to the March level. However, values of this index in March-May are still far from the real crisis failures faced by the Russian industry in the 90-ies of the 20th century, in 2008 and 2020. Demand forecasts also failed to continue the recovery that began in April and lost in May 5 p.p. out of the 33 p.p. gained a month earlier. However, the output plans in May retained positive dynamics adding another 8 p.p. and making a good stead comparable with the pre-Covid values of the indicator. Finally, production intentions of Russian industry, as in the case of the 2020 Covid crisis, got rid of pessimism already during the second month of the sanctions crisis and consolidated it during the third month.

The main reason for rapid recovery of output plan optimism was the chronic shortage of finished product inventories, which began back in August 2020. The 2022 sanctions crisis did not end in a revision of inventory estimates. The blocking of imports and a powerful inflationary wave, on the contrary, strengthened the desire of enterprises to produce to stock as long as supplies from abroad and prices for components make it possible to support domestic production. Russian industry also has to work under shortage of components, raw materials and supplies, which increased significantly with the onset of the sanctions crisis and surpassed the deficit of the period of the viral crisis of 2020. In April 2022 the balance of estimates ("above the norm" minus "below the norm") fell to -25 p.p., which evidenced the worst value of the indicator since 2009. In May, this indicator rose to -20 p.p.

In May enterprises considerably slowed down the actual growth of selling prices. Whereas in April the balance ("growth" minus "reduction") was +54 p.p. and was a 27-year record, in May it dropped to +14 p.p. and reached the level of the end of 2020. At that time, Russian industry, like the rest of the world, was just getting into a post-Covid inflationary race. However, the industry did not expect any further (in June-July) deceleration in the growth of selling prices. Whereas in April inflation expectations of enterprises dropped record-breakingly (by 26 p.p.), the reduction in May showed only 3 p.p.

The staffing intentions of enterprises in the first 5 months of 2022 experienced extremely dramatic changes. If in January amid a considerable staffing deficit the industry reported record plans for hiring workers, in March these intentions collapsed, surpassing the failure of April 2020. However, by May, the industry had almost completely overcome the pessimism of the early SMO. The balance of staffing intentions became almost zero, i.e., mass layoffs in June-July were no longer planned, but growth in the number of employees was not expected either.

The June sales volumes disappointed the Russian industry as the share of estimates "below the norm" rose to 39%, which was a 20-month anti-record for the indicator. Even in March 2022, the first month of the sanctions' crisis, such estimates were received from only 28% of enterprises. A month earlier, in February 2022, the figure demonstrated an absolute minimum of 17% (1992—2022). However, the June

figure of 39% dissatisfaction with demand was still far from the crisis peaks of 2020 (57%), 2016 (55%), 2009 (80%), 1998 (92%) and 1996 (94%).

Growing dissatisfaction with sales is explained by low dynamics of demand in Q2 2022. After the balance of the actual changes in the demand has logically dropped in March from February +5 to -20 p.p. (the latter value was not related to crisis at all by standards of 2020, 2009, 1998, 1996 and 1994) this figure could neither demonstrate the rebound from the crisis peak nor the fall to the really crisis levels of the mentioned years. The entire Q2 2022 the balance was in the corridor of -20...-14 p.p.

Demand forecasts in May-June failed to continue further recovery after the April rebound. For the whole quarter the balance of this indicator was in the interval of -13...-9 p.p. The uncertainty of the industry in the further recovery of sales definitely had a negative effect on the output plans. The latter showed a sharp drop in June. After two months of the confident growth the balance of the enterprises' production intentions lost 10 p.p. reaching zero. The Russian industry did not expect growth or reduction of the output in July-August. However, the actual output in June demonstrated growth by May 2022 and for the first time since the pre-war February the balance ("growth" minus "reduction") of this habitual index was positive.

However, the main "beneficiary" of the June output growth was not the consumers of Russian industrial products (who never decided to increase their purchases), but warehouses of finished products. The June output growth allowed the industry to reduce the shortage of finished goods inventories to 12%, which was the best (minimum) value of the indicator since August 2020.

At that time, at the stage of a definitive recovery from viral crisis of 2020, a long period of shortage of stocks of finished products began, which did not end by the middle of 2022. However, in June the balance of estimates of these stocks ("above norm" minus "below norm") was only -2 p.p., while in December 2020 it was down to -14 p.p.

Hoping to revive the weak (but nevertheless non-crisis) demand the Russian industry in June refused to increase the selling prices and has already passed to their absolute reduction. This is evidenced by the negative balance of actual changes in June prices compared to their May level. Thus, over May-June 2022 the index lost 59 p.p. after the April 27-year record of this balance. Our surveys in 1994—2022 have never registered such a definitive transition from a rather intensive growth of prices to a reduction within two months.

Hence, the May plans did not imply such a change in the pricing policy of industrial enterprises. The May balance of expected price changes remained positive (pricing growth should have remained) and large in absolute terms (prices should grow significantly). The June balance of expected changes in prices moved from "plus" to "minus" and broke two local records: in May 2019 (-3 p.p.) and in June 1998 (-3 p.p.).

In June, the Russian industry resumed recruitment after a three-month pause and the balance of actual changes in the number of workers became positive, although in May enterprises had no such plans. The hiring plans became positive only in June, continuing the consistent recovery after the record-breaking failure in March. Apparently, the chronic shortage of personnel forced the Russian industry to recruit workers even under the protracted sanctions crisis.

The July data on a wide range of indicators of surveys indicated a slowdown in the recovery from the sluggish crisis.

In July the drop in demand for industrial products continued and with growing intensity, according to the enterprises' estimates. The balance of actual changes of sales demonstrated the decline after the situation stabilized in May-June. Consequently, its July indexes were worse than those of March, the beginning of the sanctions' crisis. However, this index was still far from the crisis failures of 2020, 2008, 1998 and 1994. The negative dynamics of the balance of actual changes in demand caused growing dissatisfaction with the established volumes of product sales in July. The share of "below norm" estimates increased up to 43% after the 28% level of dissatisfaction with demand registered in March 2022. It should be noted that the pre-crisis value of this indicator in February (2022) amounted to 17% and repeated the historic (1992-2022) minimum registered in August 2021. The changes in product sales expected by enterprises after the extremely vigorous rebound in April of the next three months failed to sustain the positive dynamics. In May-July the balance of these forecasts was in the range of -13 ... -10 p.p. Such a "hang-up" of demand forecasts at the recovery from previous crises had never been registered.

The July output plans did not promise a resumption of an effective recovery from the sanctions' crisis either similar to overcoming the 2020 Covid crisis. At that time, the Russian industry managed to cope very quickly with the shock of the first wave of the disease, and the subsequent infection outbreaks failed to lower the balances of production plans to negative values. In June-July 2022 the output plans, which have considerably benefited by May, began to decrease. During these two months they lost 17 p.p. and became negative again. The intentions to decrease the production volumes began to prevail among the enterprises.

Non-positive dynamics of demand forecasts and output plans relieved the Russian industry in July from the deficit of stocks of finished products registered by surveys since August 2020. This very fact deprived production of another supporting factor, the need to replenish stocks.

In July, Russian industry continued to lower its prices. The balance of their actual changes fell from -4 to -13 p.p. As a result, two local lows were beaten: July 1998 and July 2020. The next step was to overcome the absolute minimum of January 2009, when the balance of the actual changes of prices fell down to -16 p.p. However, the July pricing plans of enterprises did not imply overcoming this absolute minimum. After three months of record-breaking (from +51 to -8 p.p.) reduction in the balance of expected price changes, this index increased by 7 p.p. in July.

The negative dynamics of demand and output forced the industry to abandon recruitment in July, which for the first time since the start of the "special military operation" was registered by surveys in June. Then the balance of actual changes in the number of workers became positive, small in absolute terms, but still

positive. In July the balance became negative again. Nevertheless, hiring plans, successfully recovering from the record March failure, stopped improving in July and froze at zero. The industry was neither ready to switch to hiring, nor to return to downsizing.

The main reason for the industry's reluctance to move to logical layoffs in the context of negative dynamics of demand and output was a chronic shortage of personnel, primarily skilled workers. This fact resulted in a record shortage of personnel in January 2022 and failed to form an overhang of excess employment in April 2022. Then the balance of estimates became only zero, i.e. the share of answers "more than enough" equaled the share of answers "not enough. In July 2022, the balance of estimates became negative again and the industry again faced a shortage of personnel "due to the expected changes in demand."

In August, according to the estimates of enterprises, demand maintained a moderately negative dynamics (that is, less products were sold than in July). However, such dynamics of sales has been observed since April: after the March slump the balance of demand remained steady within the range of -24...-17 p.p. Industrial enterprises have neither witnessed the crisis collapse of this figure (as it happened in 2020, 2008, 1998, 1996 and 1994), nor the rebound from the peak of the crisis. This situation began to disappoint more and more enterprises. The share of the normal estimates of demand after the non-crisis failure in March 2022 and slight recovery in May started to decrease slowly and dropped to 51% by August. The forecasts of demand also remained stable and non-crisis restrained after the record and logical failure in March. The output plans in August got rid of the modest (-5 p.p.) negative of July and returned to the same absolute term (+4 p.p.).

The next period of the finished stocks shortage, typical for the Russian industry had been operations within 24 months, ended in the summer of 2022. In August, the balance of estimates became positive. The record of 1998—2001, when shortage of inventories lasted 30 months and the balance dropped to -25 p.p. (in 2020 the balance dropped only to -14 p.p.), remained unbroken.

Estimates of stocks of raw materials and supplies also had a generally positive dynamics in August. A slight reduction in the usual provision with Russian components and raw materials from 79 to 74% was combined with growing usual provision with imported components from 20 to 29%. Growth in the second of the two indicators amid "sanctions war" seems to be more important than the decline in the first one.

In August, Russian industry continued (despite intentions to abandon it in July) its price decline. The balance fell to -16 p.p. beating the local pre-default July 1998 low. However, industry tried to get rid of deflationary expectations in its forecasts for the second month in a row. After the June multi-year low, the balance of price intentions rose from -8 to -2 p.p. in July and remained at that level in August. The absolute minimum of this index (-21 p.p.) was registered in December 2008.

The record-low official unemployment, which was formed, among other things, as a result of the Russian industry's non-crisis staffing policy, forced enterprises to stop expanding employment. During April-June 2022 the balance

of the hiring plans increased by 25 p.p. and became zero. The industry did not plan either growth or reduction of the number of workers in July-August. However, the actual number of employees in July-August, according to the estimates of enterprises, began to decline. The balance of actual changes decreased from +1 to -4 p.p. This fact forced enterprises to adjust their hiring plans for July-August from 0 to -3 p.p.

The determining factor in the formation of September estimates of the situation in the Russian industry was a considerable improvement in the dynamics of the demand. According to the estimates of enterprises, the balance of actual changes in sales reached the best values since the beginning of the SMO. The worst value of this indicator was obtained in July. However, all six months after the March dip the balance of actual changes in demand was in a fairly narrow range, which was able to breakthrough only in September.

This fact logically resulted in growth of satisfaction with sales volumes. In September the share of normal estimates of the demand has sharply increased up to 67% and was the best among the enterprises participating in the nongovernmental IEP surveys since the beginning of SMO. The worst value of this figure for 2022 was registered in August and made, strictly speaking, 51%, which was not crisis value at all. It should be noted that historically (1992—2022) the higher value of the index was registered in February 2022 and it equaled 79%.

Clearly positive dynamics of demand in September allowed Russian industry to increase output and the balance of actual changes in production became positive for the second time during the SMO. For the first time growth of output vs previous month was registered by surveys in June. The output plans also showed growth and almost reached crisis maximum in September registered in May. The crisis minimum of this indicator, which logically fell in March, was comparable with the lows of the previous crises. However, already in April, the production plans of Russian industry managed to get rid of pessimism, which was definitely helped by lack of stocks of finished products.

The Russian industry was able to get rid of the shortage of finished product stocks only by July 2022. In August and September, the balance continued to grow, but very modestly — by 1 p.p. per month. This fact indicated two definitely positive signals. First, industry was able to maintain a small and manageable surplus of stocks. It lost such an opportunity during the 2020 Covid crisis. Secondly, the industry decided to move from policy of crisis minimization of stocks to supporting their excess typical for the stages of recovery from crises.

Another sign of recovery from the sanctions crisis, which began in September and planned by the industry, was a sharp decline in the provision of enterprises with stocks of raw materials and supplies. The share of "normal" answers dropped both when estimating stocks of Russian raw materials, supplies and components as well as when estimating similar imported ones, and significantly: by 10 p.p. in the first case and by 7 p.p. in the second case. The Russian industry's current supply of raw materials and components does not seem to be sufficient for the sustainable growth of production that has appeared in the enterprises' plans.

The intensive hiring registered by surveys in September was also a positive signal. After five months of shrinking employment and weak (+1 p.p.) growth in June, September's +9 p.p. fit nicely into recovery from the sanctions crisis that began in September.

In September the industry managed to slow down considerably the reduction of selling prices. The balance grew by 7 p.p., but remained negative, i.e. prices continued to drop, but not as intensively as in July-August. Enterprises' price forecasts promised growth in prices and the September balance of expectations increased to +9 p.p. after zero values of July-August 2022. Minimum inflation expectations of sluggish sanctions' crisis ell on July, when the balance dropped to -9 p.p.

3.3.3. Russian industry after announcement of partial mobilization

The main driver of declining optimism in the Russian industry in October was the deterioration of demand dynamics. After the September surge by 12 p.p., the balance of changes in actual sales lost 15 p.p. in October and returned to the worst values of this indicator registered in July. The deterioration of the demand dynamics logically reduced the satisfaction with the current volumes of sales down to 58% after September's 66%. However, both the October value of this index and the worst in 2022 (51%) in August were also far from the minimums of all the previous Russian crises of the XXI century, not to mention the estimates of the enterprises received in the 90-ies of the XX century. At the same time, demand forecasts maintained high level of September 2022. Sales expectations improved by 1 p.p. in October after a 3 p.p. growth in September. Finally, the above forecast figure cemented its break from stagnation of April-August, when it steadily reached the range of -12...-8 p.p. after the March failure, being the recordbreaking in all senses and amounted to -41 p.p. The output plans, as well as demand forecasts, continued to gain optimism in October, having added another 3 p.p. and, consequently, having reached the best values after the collapse in March.

The output plans were supported not only by improvement in demand forecasts, but also by newly emerged deficit of finished product stocks in the industry. In October, the balance of their estimates ("above the norm" minus "below the norm") fell to -5 p.p. after three months of being near zero (0...+1).

Amid negative dynamics of demand and a drop in satisfaction with its volumes, in October the industry was forced to abandon the planned price increase. The balance of actual price changes remained negative (-3 p.p.). Enterprises reduced their prices more often than hiked them. Although the September plans envisaged growth in October with the balance of +8 p.p. Herewith, the October plans of the Russian industry retained the price optimism of September: enterprises still planned to push up prices, but now with the balance of +9 p.p.

The dynamics of employment in the industry also went through negative changes in October. Whereas in September enterprises for the first time during the current geopolitical crisis reported a significant growth in the number of employees (the balance of change reached +8 p.p. after -5 in August), in October this indicator dropped to +2 p.p. This reduction seems absolutely logical not only due to deterioration of the actual dynamics of demand and output, but also due to partial mobilization. However, positive value of the balance shows that there was no absolute layoff in the industry.

Thus, hiring plans, symbolically improved by 1 p.p. in October after the September jump of 8 p.p., demonstrate the desire of enterprises to return to the recruitment record for the current crisis. This intention of enterprises is based not only on the demand forecasts and the output plans, which are record-breaking for the current crisis, but also on the record shortage of staff registered in October 2022 (and for the whole monitoring period of this index in 1996—2022).

The share of estimates of the current number of workers of the enterprises as "insufficient in connection with the expected changes in demand" reached 33%. The Russian industry has never known such a shortage of personnel before. The previous records, logical for periods of economic warm-up in early 2008 and 2022, were broken by a combination of partial mobilization and record low unemployment.

Positive dynamics of demand with its balance of actual changes improving by 11 p.p. helped to resume enterprises' November recovery of optimism and almost returned to the September level, which was the best since March 2022. In this situation, November estimates of demand (on the scale "above the norm", "normal" and "below the norm") showed a recovery, but not as definitive as the dynamics' indicators. Whereas the share of normal assessments of demand fell from 66 to 58% in October, in November this figure increased only to 60%. Most likely, the industry was counting on a greater improvement in the dynamics of sales amid the ongoing SMO and the "sanctions war".

The forecasts of demand after the announcement of partial mobilization demonstrated high stability to all the subsequent events and cemented in the interval of -5...-4 p.p. after they had been within -12...-8 p.p. in April-August. As a reminder, in March 2022 the balance of forecasts fell to -42 p.p., reaching its absolute minimum and breaking the previous record of -38 p.p. registered in September 1998.

The actual output dynamics also demonstrated stability: for the third month in a row the balance was within -1...+2, whereas in March-August this index varied from -7 to +6 p.p. The near-zero values of the September-November balance demonstrated minimal changes in the output of industrial products as compared with the preceding month. However, the worst value of this balance after the beginning of the SMO was not at all the crisis -7 p.p., which is fundamentally different from traditional crisis failures of this index.

The November output plans resulted in reaching the maximum level of optimism in October after three months of growth since the beginning of the SMO, were down by 6 p.p. in November. However, they remained in the positive territory: the intentions to increase output still prevailed in the Russian industry over the plans to reduce it. Such a situation had been registered by surveys since

August, i.e. for the fourth month in a row. The negative balance of output plans in the course of the SMO was evidenced only twice: in March and July.

The shortage of stocks of finished products, which enterprises were able to overcome in August-September 2022 after a two-year deficit, began to increase again in the Russian industry. In October, the balance of estimates of stocks ("above the norm" minus "below the norm") dropped to -5 p.p., and in November to -7 p.p. This could mean both the enterprises' lack of confidence in their physical ability to maintain sufficient production volumes in the following months and their unwillingness to replenish stocks of finished products in the context of a prolonged, though shallow, crisis.

Enterprises' price forecasts remained "in the positive territory" in November. The industry reported its desire to increase prices since September. However, these plans failed to materialize: for the sixth month in a row, enterprises reported a reduction in their prices. For the first time such a situation (an excess in the share of answers "reduced" over share of answers "grew") in 2022 was registered in June (-7 p.p.), in July and August this excess reached its maximum (-13 p.p.), in November the balance rose to -1 p.p. it should be reminded that in April 2022 the indicator reached a multi-year maximum of +51 p.p. Such an intensive growth in prices as registered in April, has never been recorded since October 1995.

Partial mobilization resulted in a slowdown in the growth of number of employees at Russian industrial enterprises, however it was not an absolute reduction in the number of those employed in the industry. The balance of actual changes in the number of employees after the record +9 p.p. in September dropped in October to +3 and increased in November to +6 p.p.

Thus, the industry was able to continue hiring after the "withdrawal" of 318,000 men from the national economy. The record shortage of personnel, which the October survey registered, and the degradation of the system of vocational secondary education forced the domestic industry to plan intensive recruitment of workers regardless of demand forecasts and output plans. In September-November 2022, the balance of hiring plans showed surprisingly stable and high optimism.

Our monitoring of formal and informal reasons for layoffs at industrial enterprises launched in 2012, showed in November 2022 logical sharp growth of the one — once formal — reason for layoffs. The share of enterprises that lose employees "for formal reasons (conscription, trial, death)" rose from the usual 38% in the past to 60%, and came out on top.

Reference to voluntary retirement of pensioners in 2022, although it increased from 48% to 53% of references, was not a record high for the entire monitoring period of 2012—2022. This year this reason switched to the 2nd place. The chronic shortage of qualified workers has for two years now forced the management of enterprises to retain pensioners and even more prevent their layoff when reaching retirement age. Although in 2013 this was practiced by 10% of enterprises. Only 25% of enterprises cite low wages as a reason for layoffs in 2022, being a historic low, and perhaps it indicates that the washout of personnel from industry, those who can find more attractive jobs, has gradually subsided.

December did not bring any fundamental changes in the dynamics of demand for Russian industrial products. The balance of actual changes in sales grew by 3 p.p. and fully recovered the October losses of the index, which occurred, most likely, due to the September partial mobilization. However, this indicator was never able to demonstrate in 2022 either the usual crisis failure or the traditional recovery path observed in the previous crises.

The output in September-December showed a near-zero dynamics, almost unchanged as compared with the previous month. This situation suggests that the industry resisted the pressure of sanctions. The output plans able to quickly get rid of the March pessimism, were quite optimistic for almost all the next months, but failed to demonstrate any growth to the pre-crisis levels in 2022.

Hoping to revive demand, Russian industry once again decided to use the price factor in December, and enterprises reported a renewed decline in selling prices. After almost a complete rejection of price cuts in November, which was evidenced by a balance of -1 p.p., in December this indicator dropped to -12 p.p. It should be noted that the crisis minimum of the balance in 2022 was equal to -13 p.p., while in 2020 the minimum evidenced -8 p.p. The absolute minimum of this indicator (-19 p.p.) was registered in 2009. At the same time, Russian industry has for four months in a row reported an intention to increase its prices - the balance of expected price changes in September-December was in the range of +8...+9 p.p.

Amid record low unemployment, industrial enterprises nevertheless managed to recruit until the end of 2022 and reduce the record shortage of personnel registered by the October (2022) survey. Hence, the plans for hiring employees after positive trends in September were steadily gaining optimism during all the following months and in December, they already exceeded the similar plans for 2010 and H1 2021. It should be noted that the record optimism of this indicator for the whole period of the monitoring was registered in January 2022.