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The review provides a detailed analysis of main trends in Russia's economy in 2011. The paper contains 6 big sections that highlight single aspects of Russia's economic development: the socio-political context; the monetary and credit spheres; financial sphere; the real sector; social sphere; institutional challenges. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts.

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# **Russian Industrial Enterprises in 2011**

This section was prepared using data of monthly surveys conducted by the Gaidar Institute for Economic Policy (IEP) among managers of industrial enterprises since September 1992. The surveys are based on the European harmonized methodology and encompass the entire territory of the Russian Federation. The size of the panel is about 1100 enterprises that employ over 15% of the total number of employed in industry. The panel is biased towards large enterprises in each of the selected sub-industries. The rate of response to questionnaires ranges from 65% to 70%.

The industrial survey questionnaire contains quite a small number of questions (not more than 15-20). They are of qualitative rather than quantitative nature. The simple formulation of questions and answers allows the respondents to fill in the forms quickly and without engaging other staff members or consulting documentation. It's essential that the respondent at each enterprise should be an executive of the highest level possible who is fully aware of the situation at the enterprise and is directly involved in its management.

When analyzing the results of industrial surveys a specific derivative indicator is used which is termed "balance". The balance is calculated as the difference between the percentage of respondents who answered "will grow" (or "above normal") and the percentage of respondents who answered "will decrease" (or "below normal"). The resulting difference allows to present the distribution of answers to each question by one figure with "+" or "-" sign.

The balance is interpreted as the first derivative or the rate of the process. If the balance of responses to the question about expected change in prices has the "+" sign, it means that in the near future average prices will grow (e.g. the prevailing number of enterprises reported their intention to raise prices). The increase of balance from +10% to +17% over a month implies that average prices in industry will grow at a higher rate as the prevalence of enterprises anticipating their growth became more convincing. A negative balance is the sign of future reduction of average prices (more enterprises project to lower their prices). The changing of balance from -5% to -12% is interpreted as greater intensity of price decline.

#### Is Russian industry recovering from the crisis?

The estimate of general trends in the Russian industry both in the crisis situation and at the stage of recovery from it does not seem to be an easy task. Low immediacy and insufficient frequency of the official data release became evident at the end of 2008 – the beginning of 2009.

In 2011 users of official industrial statistics faced one more problem: the insignificance of monthly changes in output complicates interpretation of this data while possible (or at least expected) second wave of the crisis reinforces demand for anticipatory indicators. In this situa-

tion the Business Surveys Department of IEP resumed regular calculation of IEP's Industrial Optimism Index (IEP IOI)<sup>1</sup>.

In the situation of economic crisis this index helps to tackle several important tasks. First, it provides an opportunity for an actually real-time (as compared with the frequency and immediacy of official statistics) insight into the performance of domestic industry. Second, enterprises participating in the IEP surveys are "the middle class" of Russian industry. They are located all over the country's territory and operate basically in processing industries. Authorities and experts not always get timely and sufficient information on the performance of such enterprises. Third, the index is calculated on the basis of indicators having no analogues in the system of state statistics but describing the key features of real situation in the Russian industry (demand, stocks, output projections). The 19-year experience of conducting such surveys (the number of which exceeded 230) and analyzing their results proves that they provide a very precise and comprehensive outline of enterprises' performance. Long-standing, personified and non-formal relationships with respondents (90% of which are chief executive officers of enterprises) facilitate gathering of the most objective information on the performance of Russian industry. As a result the IEP's Industrial Optimism Index illustrates the true state of affairs therein.

The post-crisis maximum of the indicator was achieved in October 2010, followed by 4 months of unsuccessful attempts to continue recovery from the recession. But by March 2011 the optimistic spirit in industry faded away. In April the indicator of optimism lost two more points. In May no principal changes took place as compared with April, with the index remaining at the minimum level over the previous 11 months. So, a relatively steady (with few exceptions) overcoming of the late 2008 crisis has evidently come to an end (see *Fig. 9*).

<sup>&</sup>lt;sup>1</sup> The index is calculated as the simple average of balances (differences in responses) for four questions from the IEP questionnaire:

<sup>1)</sup> actual change of demand, balance = % growth – % decrease;

<sup>2)</sup> estimate of demand, balance = % above normal + % normal – % below normal;

<sup>3)</sup> estimate of finished goods stocks, balance = % above normal - % below normal;

<sup>4)</sup> output projections, balance = % growth – % decrease.

Balances of responses to the 1<sup>st</sup> and the 4<sup>th</sup> questions are adjusted for the seasonal and calendar factors.

The index can range from -100 to +100. A positive value of the index implies the prevalence of positive estimates. A negative value of the index means that negative estimates prevail. Lowering of the index value is the sign of deteriorating situation while its growth – the sign of ameliorating situation.

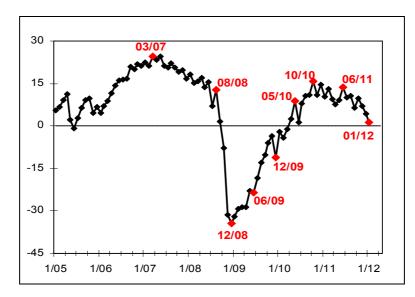


Fig. 9. IEP's Industrial Optimism Index, 2005-2012

The major contributor to the loss of industrial optimism in 2011 was the demand trend. From December 2010 the growth rates of sales were down 16 points. An evident growth of demand was replaced by an equally evident decline. The indicators for May were the worst since autumn 2009 (!). In the following months enterprises hoped to reverse this negative trend. At least, those were their projections.

According to opinion of enterprises' executives, in June the situation clearly improved. The basic driver of the Index growth was the dynamics of demand. In June it experienced positive changes that were the most sizable over the previous 24 months. The growth rates of sales (when seasonally adjusted) increased and changed the sign: the decline of demand in May was superseded by the growth of sales in June. The latter pushed up production projections of enterprises. In June they improved by 5 more points and peaked (after seasonal adjustment) to a 3-year maximum. The stocks of finished goods made a very modest positive contribution to the growth of enterprises' optimism. The estimate of (satisfaction with) demand had no impact on the Index. This indicator demonstrates astonishing stability ranging from 56% to 59%. Most enterprises seem to get accustomed to the situation of sluggish recovery from the crisis and are reluctant to respond to swings of sales.

However, in a month it became clear that the surge of optimism in June was occasional and the spirits in industry returned to their worst patterns in the past 12 months. The sharp drop of the Index (having no analogues in the previous 13 months) was conditioned by the negative dynamics of all its components.

The greatest changes occurred in the level of satisfaction with the sales volumes. Within a month this indicator lost 6 points and plunged down to a 6-month minimum. Such a dramatic revision of demand estimates was due to the evident slow-down of demand growth. When adjusted for the seasonal factor, this indicator demonstrated a complete halting of growth as regards sales of industrial produce in July. The divergence of actual demand trends in July from the June forecasts pushed the estimates of demand even lower. Enterprises anticipated continuing growth of sales in July. The latter circumstance impelled them to revise their estimates of stocks of finished goods downwards. After a long period of stability and proximity to zero, in July this indicator fell down to a 15-month minimum (see *Fig. 10*).

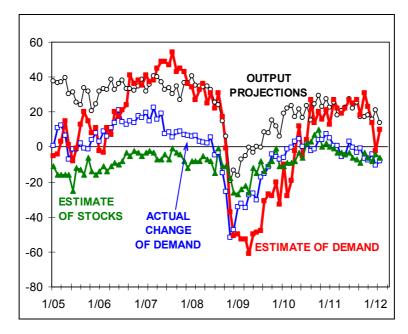


Fig. 10. Components of Industrial Optimism Index, 2005–2012

The discontinued growth of sales and the worse estimates of finished goods stocks had a negative effect on output projections. After a 3-month rebound enterprises decided to notably cut production growth rates in the nearest months. Meantime, forecasts of demand growth remained optimistic, i.e. industry planned (would have liked to) meet the demand by utilizing stocks of finished goods. Indeed, in the following months enterprises anticipated further and more intense decrease of stocks.

In August the situation in Russian industry on the whole did not deteriorate. The positive trends in output projections and satisfaction with sales were leveled off by weaker demand and worsening estimates of finished goods stocks.

The September estimates of Russian industry's performance showed the lowering of enterprises' optimism. On the whole the IEP Index did not demonstrate a pre-crisis (and already expected) drop similar to the one registered 3 years before. As compared with the 2011 maximum the decrease was only 5.3 points. But the dynamics of Index components and other indicators, monitored by IEP experts on a monthly basis, then caused concern.

First, the demand for industrial goods was stagnating for the third month in turn. However, till August industry went on hoping for its revitalization. In September these illusions were superseded by a drastic revision of forecasts: within a month the balance of expectations dropped from +13 to -5 points as judged from initial data. The September demand forecasts suggested a very sizable negative adjustment of the actual sales dynamics in the last months of 2011. Second, after a period of relative stability, the satisfaction with demand level instantly fell by 10 points. Industry could no longer bear slack demand. Although in September it preserved the same output growth rates but – third, production projections lost 12 points within a month and 37 points as compared with the year's maximum. When adjusted for seasonality, the indicator displayed reduction to a 5-month minimum. Fourth, estimates of finished goods stocks showed their apparent surplus which could be due to both the stagnant demand and the slowing down of unit costs' growth. Fifth, in order to revive demand enterprises once again refrained from

raising prices. Russian industry does not often resort to price tools: the halting of growth of ex-factory prices and their further reduction was recorded by surveys before the 1998 default, prior to and on the exit from the 2008 crisis.

At first glance, the value of Index calculated in October 2011 did not evidence the strengthening of negative trends in the performance of Russian industry. It improved by 4 points and reached the average level for that year.

But detailed analysis revealed that the Index grew owing to two subjective indicators: the estimate of finished goods stocks and the satisfaction with demand. The first of them instantly improved by 12 points and as a result quite a sizable surplus of stocks typical for the previous months was superseded by their shortage. The latter fact in the situation of apparent weakening of demand and faint hopes for resumption of sales growth rather evidenced that industry "cleared" its stocks of finished goods and did not plan to replenish them in the near future. Therefore, the shortage of stocks in the situation of sluggish (or decreasing) demand was rather a sign of the firm conviction in the development under negative scenario than of the industry's inability to satisfy the effective demand.

The satisfaction with sales in October also improved. This indicator instantly grew by 10 points and achieved a post-crisis maximum. It appears that even modest demand seemed normal for most (65%) enterprises in the situation of nervousness on the world markets and uncertainty about even the nearest future. The demand for industrial output continued to decrease. The rate of change (after seasonal adjustment) reached a 20-month minimum, i.e. no such an intensive drop of sales had been observed since February 2010. The output projections plunged to a 14-month minimum.

In November the situation in industry deteriorated as compared with October and returned back to the September level when minimal since June 2010 value of the indicator was recorded.

The principal cause of the November lowering of Index was the intensifying drop of demand for industrial products. As a result, the satisfaction with sales volume fell. One more sequence of the shrinking demand was the worsening balance of estimates of finished goods stocks even despite reduction of their physical volumes. To the opinion of enterprises, revitalization of industry in these conditions and, moreover, on the eve of nation-wide New Year holidays was unlikely. In November their initial production projections plummeted to the minus area down to the value that had never been registered either in the pre-crisis years or in the current year. However, the adjustment for seasonality flattened this nose-dive up to the level of the previous two months.

The Index for December showed that situation at enterprises continued to deteriorate. The industrial performance indicators by the end of 2011 were apparently worse than in the previous year. In the last months of the year the most sizable changes for the worse were observed in estimates of sales. Despite positive dynamics of demand, this indicator lost 11 points after its October surge. However, the positivity of demand trend was relative. In December the growth rates of sales demonstrated just the slowing down of decline, the intensity of which in the two previous months was record for 2010-2011. The aggravation of the European debt crisis became the turning point for output projections. In September they fell by 9 points and failed to restore till the end of the year. It appeared that managers of enterprises adequately assessed the prospects for Russian industry.

At the beginning of 2012 the Industrial Optimism Index fell to the minimum level recorded in the last 18 months. And even higher optimism of projections failed to make up for the worsening of actual dynamics and its estimates. The situation in Russian industry has evidently deteriorated.

Summing up, one can state that according to IEP's IOI in 2011 the recovery of Russian industry from the crisis has apparently slowed down. The rally registered in June turned out to be incidental and failed to reverse the general trend of the past year when optimism sooner fell than grew. The results of the recent months show that the industry is plunging into the second wave of the crisis rather than finding a way out of it.

Following the aggravation of European problems in autumn and the growing uncertainty on the world markets, the Index of Industrial Projections which is based on three projections of enterprises (demand, output and employment) and in all other respects is similar to the Industrial Optimism Index, demonstrated a sharp decline of enterprises' expectations and their stabilization at the level which was minimal since August 2010 (see *Fig. 11*). The initial plans and projections of enterprises had been decreasing with different intensity since August 2011.

However, in January 2012 surveys recorded a cardinal improvement of projections for all the basic indicators: those of demand, output, employment and investments. As a result the Index of Industrial Projections was up 5 points. Most probably, there are no economic grounds for such a surge in the situation of aggravating crisis of Eurozone and the growing pessimism of experts' expectations. But it can have a political explanation. It seems that home politics have intervened in home economy: the national peculiarities of counting votes at the elections to the State Duma, the society's response to them and convulsive attempts of authorities to extinguish discontent with a view to remain in power. Which of the taken away from the society and the economy within the previous 10 years will be given back, who will attend to this and which of the pre-election promises will be materialized – these seem to be the factors concerned by Russian enterprises when making projections for recovery from the protracted crisis.

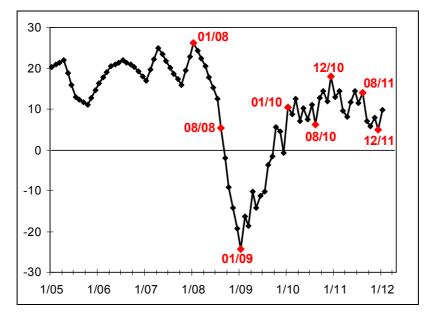


Fig. 11. Index of Industrial Projections, 2005–2012

So, the second wave of the crisis, or its new stage, or the continuation of the recent crisis is quite possible and is just a matter of time. Other issues in question are certainly the scale,

deepness and other specifics of future developments as compared with the ones that took place in Russian industry at the end of 2008. With regard to this in September-October 2011 managers of enterprises participating in IEP's surveys were asked the question, "What is your enterprise going to do (what can happen) in case of the second wave of the crisis and the lowering of demand for the produced output?", and the following 13 variants of response were suggested:

- 1) lowering of ex-factory PRICES;
- 2) significant (15% and more) reduction of OUTPUT;
- 3) lowering of COSTS;
- 4) increase of DELAYED payments by buyers;
- 5) increase of NON-MONEY settlements with buyers;
- 6) lowering of WAGES, part-time working week;
- 7) DISMISSAL of employees;
- 8) halting of enterprise OPERATION;
- 9) complete or partial changing of OWNERS;
- 10) real risk of BANCRUPTSY;
- 11) forced LEAVES of employees without pay;
- 12) more active MARKETING, searching for new buyers and markets;
- 13) NONE of the above mentioned.

First time we included (or, to be more exact, managed to include) this question in the questionnaire in December 2008, after the IEP's surveys were the first to register the actual rather than expected beginning of the crisis (the record of November 18, 2008). Later the questions about the actual business responses and expectations were asked four more times, the last in March 2010. As a result we obtained a unique by its immediacy and frequency array of data on expectations, plans and responses of enterprises to the crisis that began in Russian industry in November 2008. The question posed in 2011 can help both Russian enterprises and Russian ministers to get prepared for the possible new wave of the crisis.

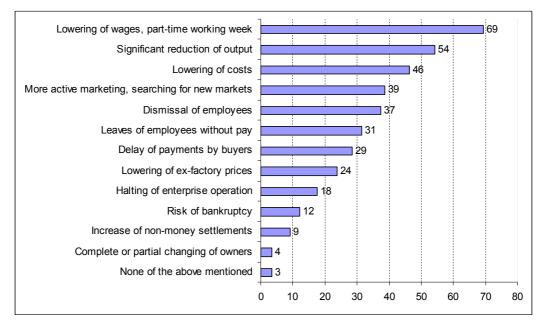
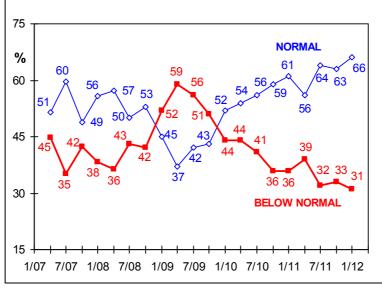


Fig. 12. Possible responses of enterprises to the second wave of the crisis, %

In case of the second wave of the crisis (let's term so possible negative developments in the nearest future) Russian industrial enterprises first of all plan to cut wages and switch to a parttime working week (see *Fig. 12*). 69% of enterprises will take such actions. These anti-crisis measures hold the first place by their popularity with enterprises of all sizes and among respondents of different ranks (from the director to an average executive). The latter fact illustrates a sort of "class" consensus that formed in the industry during the first three years of the crisis. But the possibility of such response greatly differs by branches. While in ferrous metallurgy, machine-building and construction materials industry over 80% of enterprises are ready to take such measures (and except for ferrous metallurgy they are the most widely spread), in timber processing they are possible at 40% of enterprises, in food industry – at 28%, in electric power industry – at 14% and not at a single enterprise in the non-ferrous metallurgy.

One can suggest that the most likely reason why Russian enterprises name the lowering of wages and switching to a part-time working week first in the list of measures to be taken in response to the crisis is the normalization of situation with wages in the Russian industry after the acute (first?) phase of the current crisis was overcome. This indicator was included in the quarterly questionnaire in 2007 and now permits to trace the assessment of employees' wages by executives. According to estimates of enterprise managers (and these are the ones who take decisions on revision of wages), at the end of 2011 wages reached "normal" levels at 64% of enterprises. On the eve of 2008 crisis only 53% of respondents could provide "normal" wages to their workers (see *Fig. 13*). So, one can assume that in autumn 2011 industrial enterprises had much better opportunities for wage maneuver in case of the crisis escalation as compared with the end of 2008.



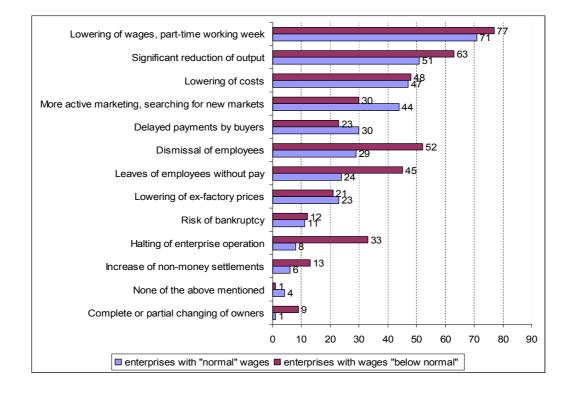
*Fig. 13.* Assessment of wages paid to workers and specialists by enterprise managers

To check this hypothesis, let's compare the probability of wage responses to the second wave of the crisis by enterprises that pay "normal" wages to their workers and by the ones that assess the paid wages as being "below normal" (see *Fig.14*). It turned out that the "normal" level of wages is not conducive to the lowering of wages and enforcement of a part-time working week in case of the second wave of the crisis. It's rather *vice versa*.

But it seems that the second wave of the crisis can "finish off" enterprises which have failed to restore after the peak of the first wave and still pay insufficient wages to their workers. Such enterprises 1) four times more often expect that their operation will be halted; 2) two times more often are ready to send their workers on unpaid leaves or just simply dismiss them; 3) will more often be forced to reduce output thus further aggravating the situation. Meantime, "delayed payments by buyers" are less acceptable for enterprises with insufficient wages; they are in desperate need of pay for their produce, even in the form of "non-money settlements" which they are twice more ready to accept as compared with enterprises that are able to provide "normal" wages to their workers. The latter will assume more active (aggressive) position in case of the new escalation of the crisis: they are 1.5 times more disposed to intensify marketing and search for new markets.

In December 2008 the lowering of wages and switching to a part-time working week ranked third (59% probability) being surpassed by such classical anti-crisis measures as the lowering of costs and searching for new markets and buyers. As the crisis was overcome, its expected application fell from 43% in Q2 2009 to 28% in the I quarter of 2010. But the actual extent of its use was greater and ranged from 64% to 53%.

Only 37% of enterprises in industry at large are ready to apply the most severe measures – dismissals – in relation to their employees. The probability of such actions does not depend on the size of enterprise but apparently varies by branches (see *Fig.15*). While in non-ferrous metallurgy, timber processing and food industry dismissals are possible at approximately 20% of enterprises, in ferrous metallurgy, machine-building and consumer goods industry this share is as high as almost one half of enterprises. There is also less consent about this extreme measure between executives of different ranks: top-managers are ready to reduce personnel in 40% of cases while average executives – twice more rarely.



*Fig. 14.* Possible responses to the second wave of the crisis by enterprises with "normal" wages and those with wages "below normal", %

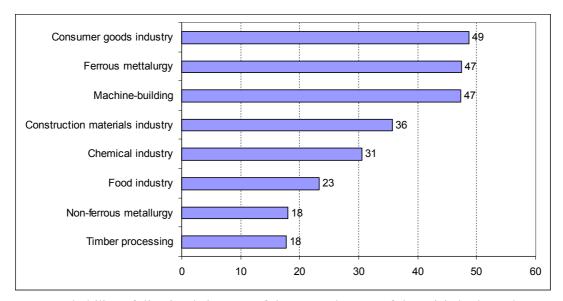


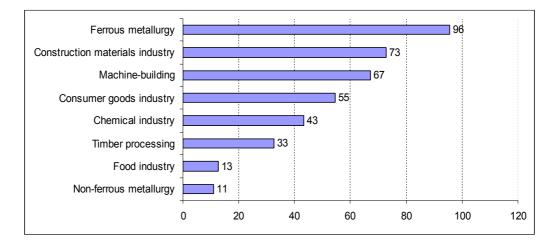
Fig. 15. Probability of dismissals in case of the second wave of the crisis by branches, %

In 2008 the probability of dismissals was estimated by enterprises at 47% and ranged 7<sup>th</sup> among the after-effects of the crisis. As the situation developed (2009-2010), the lay-off projections were initially registered at 30% of enterprises and then fell down to 24%. Actually they were implemented at 38% of enterprises in Q2 2009, with further reduction of this share down to 30% in Q1 2010. The higher initial estimate of lay-offs' probability as compared with later projections and even the actual implementation is most likely due to the surprisingly active (sometimes even too active) efforts of the government to halt dismissals as compared with the respective efforts (or, to be exact, their total absence) during the previous crisis of 1998. In 2011 enterprises already "adjusted" their projections taking into account the experience of the first wave of the crisis and, probably, national peculiarities of the election campaign. Lay-off projections are also constrained by chronic shortage of skilled labor in industry even in the situation of sluggish and/or fading industrial growth in 2010-2011.

The sending of employees on unpaid leaves is the last in the list of HR policy measures that enterprises are ready to take. The probability of such actions in industry at large is 31%. Their application rate won't depend on the size of enterprises but will differ greatly by branches. Similar to dismissals, their most active use is probable in ferrous metallurgy (56% of enterprises), consumer goods industry (39%) and machine-building (37%). As compared with other HR policy tools, their probability is high in non-ferrous metallurgy (33%). Such practices will be less spread in food industry (15%) and timber processing (17%).

In 2011 "significant (15% and more) reduction of output" held the second place among possible anti-crisis actions of enterprises. 54% of producers in industry at large were ready to take this step. It was named second by enterprises of all sizes and by only two branches (machine-building and construction materials industry). At the same time, in ferrous metallurgy the reduction of output will be the most popular response to the crisis as claimed by 96% of factories in this sector (see *Fig. 16*). No other anti-crisis measure has such a high rating neither in industry at large nor in any of the surveyed categories of enterprises. Meantime, in food indus-

try and non-ferrous metallurgy the probability of output reductions in case of the second wave of the crisis is the lowest.



*Fig. 16.* Probability of output reductions in case of the second wave of the crisis by branches, %

Although at the end of 2008 the reduction of output ranked only 4<sup>th</sup> in the list with 56% probability, the realities of the first quarters of the crisis turned out to be more tough. At the beginning of 2009 75% of enterprises reported the actual reduction of output. By Q1 2010 this figure fell down to only 62%. For this indicator the gap between enterprise projections and the severe reality was the biggest. In Q2 2009 the reduction of output was projected by only 40% of enterprises, and by the end of monitoring their share fell down to 24%. But in fact no such (or even close) results were obtained within that period.

At the onset of the crisis (i.e. in December 2008) Russian industrial enterprises gave preference to the two classical anti-crisis measures: the lowering of costs (77% probability) and more active marketing and search for new buyers and markets (78%). The almost three-year-long crisis experience of 2009-2011 made them revise their attitude towards these measures. In 2011 only 46% of producers were ready to cut costs and only 39% of enterprises believed in the efficiency of efforts to intensify marketing and search for new markets and buyers. The probability of (and opportunity for) lowering unit costs in case of the second wave of the crisis is the highest in metallurgy (53% in ferrous metallurgy and 62% in non-ferrous metallurgy). Similar projections are made by enterprises of chemical (53%) and food (48%) industries. The reserves for cutting costs in case of the new phase of the crisis are the smallest in machinebuilding (43%) and construction materials industry (36%). The most optimistic about the effects of marketing and search for new buyers and markets are enterprises of food industry (60%) and ferrous metallurgy (53%) while enterprises of non-ferrous metallurgy have almost lost belief in these tools – only 9% of them will attempt to take respective steps.

The analysis of possible responses of enterprises to the second wave of the crisis revealed that industry at large is ready to face it with due regard to its own experience and actions of authorities during the first wave thereof. Enterprises will respond to the inevitable reduction of output by the lowering of costs and dismissal of employees. The switching to non-money forms of settlement for the produce with a view to preserve the staff and continue operation is very unlikely as proved by the first wave of the crisis in 2008-2009. Therefore, one should not expect the growth of barter transactions (so much feared by observers at the onset of the crisis). But the second wave of the crisis can lead to the liquidation of inefficient enterprises that have survived owing to the state support and resources accumulated in 2003-2008. Three years of sluggish crisis have lowered the safety margin of our industry, and the feebleness of hopes for the restoration of former economic growth rates appears to undermine the optimism of owners and managers in fighting for survival of their enterprises.

## Dynamics of demand and output

At the beginning of the year the volumes of sales traditionally demonstrated negative dynamics according to the initial (prior to adjustment for seasonality) data. The growth rates (the balance of change) lost 21 points and fell deep below zero, which, however, was the pattern observed in all the non-crisis years and became habitual for enterprises. Adjustment for the seasonal and calendar factors leveled off the situation: sales of industrial products continued growing. On the contrary, demand projections in January seriously improved. Within a month the balance of initial responses increased by 32 points which is also a normal change for this indicator. Adjustment for seasonality flattened out the January surge of optimism and as a result a slight worsening of projections compared with December expectations was registered.

The dynamics of output in the early 2011 was also quite typical. The initial data indicated the reverse from December growth to January decline with the balance decreasing by 45 points at a time. However, adjustment for seasonality flattened out this sharp swing in output dynamics: just a slowing down of growth took place in January. Production projections also underwent expectable changes in January: the pessimism of November-December was superseded by high optimism traditional for the start of a year. When adjusted for seasonality, no principal changes were traced in enterprises' projections: as before, industry expected quite acceptable (by crisis standards) rates of production growth in February-March.

The February data demonstrated only the halting of decrease in demand but not its growth. Adjustment for seasonality also revealed no growth of sales in February. Demand projections (initial) in February improved by 10 more points and reached a maximum for the pre-crisis and crisis period. No similar prevalence of sales growth expectations over their decline expectations had been registered since July 2008. Adjustment for seasonality flattened out the optimism of initial expectations down to the average level of the 5 preceding months: beginning from October 2010 the most stable and optimistic projections for demand growth were registered in industry.

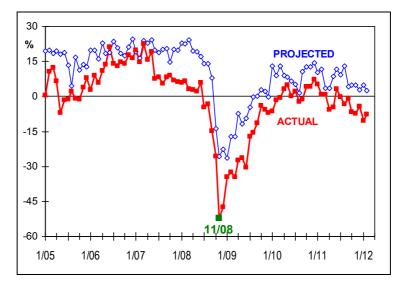
In February the initial output growth rates (in case of surveys – the balance of responses) restored after the January decrease up to the average indicators of Q4 2010. Adjustment for seasonality left this result unchanged. According to estimates of enterprises, production growth rates remained at approximately the same level since May 2010. Initial production projections grew by 15 points in February and also attained a maximum for the pre-crisis and crisis period. Growth of output was expected in all branches, the most intensive one – in ferrous metallurgy and construction materials industry. Adjustment for seasonality leveled off the January-February soaring of projections down to the level typical for previous months.

In March the formal increase of initial sales growth rates up to +9 points from +3 points in February was flattened out by adjustment for seasonality: the growth of sales at the end of the quarter apparently ceased. So, the balance of demand change (growth rates) lost 9 points from the start of the year and became zero after having been apparently positive. No similar slow-

down in recovery from the crisis had been ever recorded. Negative dynamics of sales affected projections made for them. After the most optimistic crisis expectations recorded in December 2010, by the end of Q1 2011 the balance of projections lost 7 points and fell to an 8-month minimum.

However, the rates of output change still demonstrated (albeit slow) resumption of production growth after the traditional January drop and the return to average levels recorded in the previous 11 months. As a result the divergence between output and demand dynamics grew bigger. In March 2011 only 58% of enterprises reported similar changes in sales and output (in January – 65%, in February – 62%) while at 35% of enterprises output outpaced demand (in January – at 14% of enterprises, in February – at 28%). Such a low level of the first indicator and such a high level of the second had not been observed in the Russian industry since April 2008. Meantime production projections of enterprises indicated that they were not ready to bring output growth rates in compliance with demand dynamics. In March the share of factories where the projected increase of output exceeded the increase of demand projections, reached 25% which was an 8-month maximum. And only 68% of enterprises were ready to change output in line with the expected demand dynamics (a minimum for the same 8 months).

In April the initial rates of demand growth fell down to zero after the crisis record they set in March, i.e. sales ceased growing. Adjustment for seasonality further worsened the April indicators that consequently showed an absolute reduction of demand by -7 points (see *Fig. 17*). Such an intensive decrease of demand for industrial products had not been registered by surveys since January 2010. Similar radical revisions took place in sales projections. According to initial data, by April they fell down to +12 points following the previous crisis record of +31 points that was registered in February 2011. Adjustment for the seasonal and calendar factors indicated stabilization of sales projections at +4 points which was a 15-month minimum.



*Fig. 17.* Change of solvent demand adjusted for seasonality (balance = % growth - % decrease)

In May the lowering of demand for industrial products continued. The seasonally adjusted data displayed a decrease at the rate of -5 points. As a result sales growth rates lost 13 points from December 2010, i.e. an apparent growth of demand was superseded by its equally appar-

ent reduction. But enterprises expected that in the following months this negative trend would be reversed. In May output growth rates (according to initial data) continued falling but remained positive, i.e. production went on growing. Adjustment for seasonality indicated the preservation of April growth rates (minimal from February 2010) in May.

In June the dynamics of demand underwent the greatest positive changes. Sales growth rates (after seasonal adjustment) increased by 9 points within a month and altered sign: reduction of demand in May (-5 points) was followed by increase of sales in June (+4 points). Higher growth rates of sales at the stage of recovery from the crisis were registered only twice. Production quite adequately responded to larger sales: output growth rates according to both the initial and seasonally adjusted data demonstrated rise up to the best crisis levels. The adjusted balance (output growth rate) was up 4 points. In June production projections of enterprises continued to improve and reached a 3-year maximum (according to data adjusted for seasonality), i.e. the Russian industry had never been so optimistic about the growth of output since July 2008.

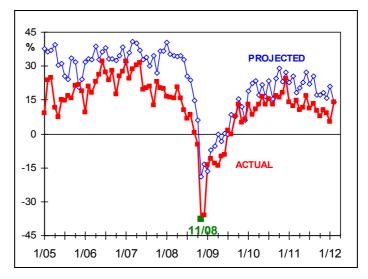
But in July 2011 sales failed to sustain the June achievements and demonstrated an apparent slowing down as judged from initial data and zero growth as judged from seasonally adjusted data. So, the demand for industrial products was still slack and its growth – unstable. However, demand projections remained optimistic. In the three previous months they improved by 9 points and as a result reached a 3-year maximum, i.e. the expectations of sales expansion in industry were the most positive since July 2008. Negative dynamics of demand resulted in the slowing down of production growth in July. After seasonal adjustment the balance of this indicator returned to the average level of January-May 2011. The halting of sales expansion and worse assessments of finished goods stocks had a negative impact on production projections. After 3 months of their improvement enterprises decided to reduce output growth rates in the following months.

In August the actual dynamics of demand for industrial products continued to deteriorate. The growth rates of sales fell down to zero as judged from initial data and became negative as judged from seasonally adjusted data – after the June upsurge, the demand for industrial products resumed weakening. Negative trends in sales were registered in all branches except machine-building. But then demand projections evidenced that enterprises still went on hoping for revitalization of sales in autumn. Both initial and seasonally adjusted expectations improved in August. The latter even attained a 3-year (i.e. crisis) maximum. Despite a clear worsening of demand dynamics, the intensity of output growth in August increased according to all data. As a result the changes in production outpaced changes in demand at 28% of enterprises while in the previous two months this indicator equaled only 22% and in 2010 averaged 24%. Production projections of enterprises improved as well: slightly – as judged from initial data, and up to a crisis maximum – as judged from seasonally adjusted data.

According to estimates of enterprises, in September the demand for produce in industry at large apparently stopped growing. Surveys indicated its stagnation for the second month in turn as judged from initial data and for the third month in turn – as judged from seasonally adjusted data. However, if one excludes a slight increase of sales in June, the stagnation went on since the start of the year.

Until August industrial enterprises still cherished hopes for the revival of demand. In September these illusions were superseded by a drastic revision of projections: within a month the balance of expectations dropped from +13 to -10 points as judged from the initial data. Adjustment for seasonality indicated its lowering from +13 to +4 points. Negative trends in the

expected dynamics of sales (either a slowing down of growth or an absolute reduction) were recorded in all branches except for food industry.



*Fig. 18.* Change of output adjusted for seasonality (balance = % growth - % decrease)

According to initial data, in September the intensity of production growth decreased by 10 points as compared with August, and when adjusted for seasonality hit the bottom for the previous 18 months (see *Fig. 18*). Russian industry was struggling to sustain output growth in the conditions of clearly stagnating demand, growing surplus of stocks and nervousness on the world markets. In August dynamics of production outpaced dynamics of demand at 30% of enterprises, in September – at 26%, and projections for October-November suggested that this trend would persist at 26% of enterprises. The latter indicator was a 45-month maximum. In other words, production projections had never diverged so much from the demand projections since January 2008. And all this even despite the fact that the balance of output projections in September fell to +7 points down from +25 points in August as judged from initial data and down to a 13-month minimum as judged from seasonally adjusted data.

In October the absolute reduction of demand continued. The initial balance fell to -7 points and when adjusted for seasonality – down to -4 points. Since the start of 2010 a more intensive drop of sales was registered only once – in April 2011. Initial demand projections remained negative for the second month in turn, i.e. downward expectations in industry prevailed over upward expectations. Adjustment for seasonality changed the sign of October projections' balance for "+"; however, the value of this indicator was the lowest since May 2011.

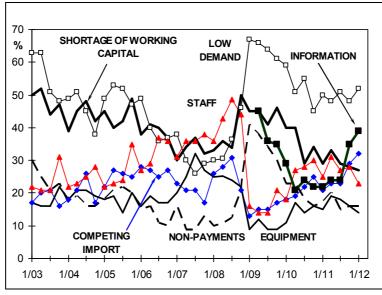
In November 2011 surveys revealed more intensive lowering of demand for industrial products. The initial balance (growth rate) of sales fell by 6 more points (down to -16 points) and as a result became comparable to indications that used to be registered in January in pre-crisis years and in the current year. Adjustment for seasonality corrected the balance to -9 points which was the worst indicator since September 2009. Demand projections after the September nose-dive by 22 points lost 15 more points in November. As a result the November balance of projections (before adjustment for seasonality) was as low as -20 points. Over the 20-year history of surveys the values of this indicator were worse only 3 times: in 1998, 2008 and 2009. So, at the end of the year industry had very faint hopes for the revival of demand. However, formal methods of adjustment for seasonality leveled off the pessimism of enterprises and reversed the sign of demand projections balance from "-" to "+". Still, its value remained minimal for the current year and was clearly behind projections of late 2010.

In November production growth rates didn't change as judged from either initial or seasonally adjusted data. The initial balance in November (as well as in the previous months) was around zero and remained the worst (certainly, excluding the nation-wide January time-out) since the start of 2010. Adjustment for seasonality increased its absolute value but left it at the minimal level since March 2010. Enterprises didn't trace any revival in industry.

They didn't expect it in the coming months either. In November production projections of enterprises (before adjustment for seasonality) fell by 16 more points and became negative (there appeared more enterprises planning to cut output) thus continuing the downward trend that formed at the beginning of the second half of 2011. As a result within the 5 preceding months these projections lost 45 points while within the same period of the previous year the loss was 25 points. Adjustment for seasonality smoothed out the situation and stabilized output projections for September-November at one level, albeit the lowest in 2011 and 9 balance points below the level of September-November 2010.

At the beginning of 2012 the demand for industrial products sharply dropped which was usual for the period of national vacations. However, this time the January plunge of sales was a continuation of negative trends in demand dynamics that formed in September 2011 when sales stopped growing and started to fall with increasing intensity. In January 2012 these accelerating rates of decline were as high as in no other January since the 1998 default (certainly, except for the crisis January of 2009). Adjustment for seasonality smoothed out this result but only to the level of the worst growth rate since September 2009. Meantime, an apparent lowering of sales is going on since October 2011.

In 2011 a new configuration of constraints to production growth started forming in industry that reflected the specifics of sluggish recovery from the 2008 crisis (see Fig. 19). First, in the first three quarters of 2011 the constraining effect of short demand increased by 8 points after the crisis minimum of late 2010. Enterprises clearly expected a more dynamic revival of demand. Second, the negative impact of working capital shortage reduced (as judged from the average annual data) down to the historical minimum. In 2011 it was mentioned by only 30% of enterprises while the best indicator for inter-crises period equaled 34% (in 2007). So, as it's customary to say nowadays, industry has surpassed the pre-crisis level by this indicator. Third, staff constraints to industrial growth continue to aggravate. In 2011 the share of enterprises where shortage of employees constrained production equaled 28% as compared with 25% in 2010, notwithstanding slow and unstable growth of both demand and output. Fourth, in the first three quarters of 2011 the constraining effect of competition with import decreased and stabilized after a steady growth in 2009-2010. It's all the more noteworthy given a sizable increase of imports according to the official statistical data and an apparent stagnation of demand for domestic products. This combination of factors leads to the conclusion that in early 2011 imported items were not considered by enterprises as competing. And one more conclusion: domestic statistics are sometimes not as bad as their ... interpretation. Fifth, the negative impact of non-payments, so much feared of at the beginning of the crisis, has stabilized although not at such a low level that was registered in 2007 - early 2008. Sixth, in the III quarter of 2011 the mentioning of shortage of credits (as a hindrance to output growth) fell down to a concern-triggering level of 2%. The effective supply (and terms) of credits is such that industry does not need its further expansion for increasing output.



*Fig. 19.* Constraints to production growth in 2003–2012

At the end of the year the structure of constraints to industrial growth changed due to the growing uncertainty in the world economy and the temporary devaluation of ruble. As before, enterprises regard low demand as a key hindrance to production growth. This factor has been ranking first in the quarterly rating of constraints since the start of the crisis (which is quite explainable). However, in Q4 the frequency of its mentioning reduced to 47% as compared with 52% in Q3 2011 and almost reached a post-crisis minimum (45%) registered a year before. The shortage of working capital that ranked second during all the phases of the current crisis was also mentioned less frequently. Moreover, in Q4 its constraining effect on the growth of output fell down to a historical minimum (!) over the whole period of monitoring since 1993. The third crisis factor which is hallmark for Russia – non-payments by consumers – now ranks only 8<sup>th</sup> with a stable share of 17%.

But Q4 2011 was marked by an apparent increase of constraining effects of two factors: the uncertainty of current economic situation and its further development and the competing import. Within a quarter the mentioning of the former grew from 22% to 38% and as a result brought it to the second place in the rating. Such a surge seems absolutely normal taking into account the persisting uncertainty about the outcome of European debt crisis, other problems on the world markets and poor understandability of Russian state statistics, the monthly interpretation of which looks like guessing from the childish rhyme "maybe snow, maybe hail, maybe sour grapes".

At the end of 2011 after notable swings of the ruble exchange rate, competing import was considered to be a hindrance to production growth at 27% of Russian industrial enterprises while in the first three quarters of the year it was mentioned by 21-23% of producers. Moreover, the indicator of the last quarter became a post-crisis maximum and closely approached the pre-crisis (and absolute!) maximum of 31% registered in July 2008. It seems that the uncertainty about the ability and/or wish of authorities to safeguard ruble from devaluation makes consumers to more actively spend their savings on the purchase of imported products at not yet inflated prices to the detriment of domestic commodities.

At the beginning of 2012 the new configuration of constraints to output growth continued forming in the Russian industry. Factors that earlier one could hardly suspect of great influence on enterprises are becoming "leaders", while traditional "sores" of our industry are losing their negative impact on its performance

However, insufficient demand remains a definite and logical leader of the current crisis. It's mentioned by 51% of enterprises which is 16 points less than at the peak of the crisis but is still the maximum level over the recent 6 quarters.

The factor of uncertainty of the current economic situation and its further development climbed to the second place in autumn 2011 (as the crisis of Eurozone started to aggravate) and seriously reinforced its positions at the beginning of 2012. Its mentioning grew up to 41% although back in summer 2011 only 24% of enterprises complained of it.

The negative impact of competing import on the domestic industry attained its historical (1995-2012!) maximum and now ranks third. At the beginning of 2012 one third of surveyed enterprises suffered from the pressure of import that ousts Russian products from the markets. The pre-crisis maximum of this indicator registered in July 2008 was 31%. Before the 1998 default only 16% of enterprises complained about import. At present its pressure is most detrimental for enterprises in machine-building (41%), ferrous metallurgy (35%) and consumer goods industry (34%).

The negative effect of shortage of working capital fell down to 27% which is a historical minimum (!) of mentioning this constraint. At the peak of the current crisis 50% of enterprises were affected by this factor, while the absolute maximum was registered in 1995 and reached 83%. The picture is completed by an actual lack of negative effect of credit shortage on the output dynamics in Russian industry. For the fourth quarter in turn only 2-3% of enterprises complain about it.

## Price policies of enterprises

In January 2011 factory prices demonstrated the highest growth rates over the past 15 years (!), i.e. they had not grown so rapidly since the end of 1995. Within a month their growth rates (i.e. balance in case of surveys) increased from +18 to +50 points. While in December 2010 78% of enterprises (in 2010 - 77% on the average) reported constancy of their prices, in January 2011 the share of such responses fell down to 46%. Certainly, a month before enterprises planned a sizable increase of prices at the beginning of 2011 - but not to such an extent! Plans of enterprises showed their intentions to preserve the high rates of price growth in the coming months. It's projected intensity was somewhat lower but not low enough to stop a powerful inflationary wave that formed in the Russian economy at the end of 2010.

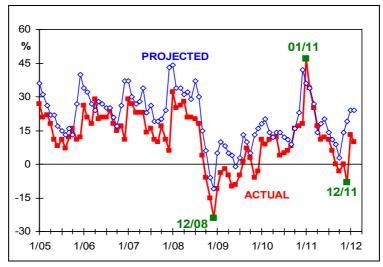
In February the growth of factory prices slowed down by 12 points after the January surge. However, its intensity did not return to the pre-New Year levels: the actual balance of price growth was as high as 35 points while in Q4 2010 - 17 points. So, enterprises had to raise their prices twice faster than at the end of the previous year. The most intensive growth was registered in ferrous metallurgy, chemical and petrochemical industries. In February factory prices stopped growing only in food industry. Enterprises' projections suggested possible maintaining of February growth rates in March-April. The balance of expected change of this indicator equaled 37 points and remained at the level of January projections.

In February 2011 unit costs at industrial enterprises demonstrated the most intensive growth since the onset of the crisis which was quite exactly forecasted back in November 2010. The

biggest increase took place in ferrous metallurgy (balance +73 p.p.), timber processing, consumer goods industry and machine-building (+64 p.p. in each), chemical and petrochemical industries (+61 p.p.).

However, in March the inflationary wave that formed in the Russian economy at the end of 2010 – the beginning of 2011 started to fade out. The actual rates of price growth halved as compared with the January surge – down from 47 to 23 balance points. It's worth noting that in Q4 2010 surveys registered growth of factory prices at the rate of 17 b.p., in the III quarter – 7 b.p. In March the actual growth of prices decelerated in all branches except for chemical industry and construction materials industry. For the second month in turn it was the slowest in food industry. Price projections experienced similar adjustments. After the December surge they lost 14 points and approached the level of November 2010.

In April inflation continued to decelerate (see *Fig. 20*). As compared with January the rate of price growth fell by 28 points and returned to the level of Q4 2010. Similar changes occurred in price projections: as compared with the peak of December 2010 they lost 27 points.



*Fig. 20.* Change of factory prices (balance = % growth - % decrease)

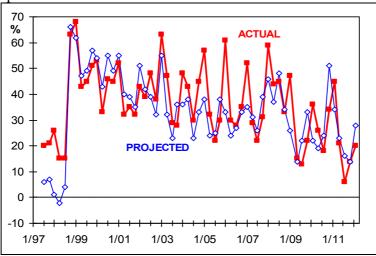
In May the growth of factory prices slowed down once again but only by 4 points. As a result within the 4 preceding months its intensity decreased 3.5 fold (as judged from balance). However, further lowering of this indicator was already questionable. In May enterprises' projections indicated the reversal of their price policies. While from January to April price projections steadily declined, in May this trend discontinued, and for the first time in 2011 Russian producers declared their intention to accelerate growth of prices or at least stop its deceleration.

Indeed, in June the slowing down of price growth recorded by surveys since February seemed to halt. The balance stopped falling which indicated the preservation of May growth rates. It's possible that the increase of sales enabled enterprises to modify their price policies and halt the decline of price change balance (rate) that lost 36 points within the previous 4 months. Price projections of enterprises reflected this intention in May and proved it in June. Within these 2 months the balance between upward and downward price projections remained actually unchanged and was somewhat above the indications of April that were the lowest since October 2010. It's noteworthy that it was last October when an inflationary wave formed

in Russian industry, generated by drought and the forthcoming raising of unified social tax (UST). In December 2010 (as judged from expectations) and in January 2011 (as judged from the actual growth) it reached its peak.

In July the growth rates of prices for industrial products remained the same as in June. Price projections of enterprises didn't change either and reflected the intention of producers to halt the slowdown of factory price growth that was observed in the first months of the year.

Principal changes took place in the growth rates of unit costs in Russian industry (see *Fig. 21*). According to estimates of enterprises, in Q3 2011 unit costs of industrial products grew at minimal rates over the whole period of monitoring this indicator since 1997 (!). Even before the 1998 default the intensity of their growth was 3 times above the current level. Unit cost projections for Q3 suggested the slowing down of their growth, but not as critical as was actually observed. Probably, it was this factor that primarily conditioned the preservation of high (as compared with demand) growth rates of output and replenishment of finished goods stocks that enterprises planned to sell in autumn and winter when prices and costs returned to their usual growth patterns.



*Fig. 21.* Change of unit costs (balance = % growth - % decrease)

Long-term stagnation of demand and attempts to sustain output growth made enterprises return to the application of price levers. In August the growth rates of prices once again declined and in September producers refrained from raising prices for the first time since January 2010. Russian industry rarely resorted to this tool: the halting of factory prices growth and their further lowering was registered by surveys on the eve of the 1998 default, on the eve of the 2008 crisis and on the exit from the 2008 crisis.

Price projections of enterprises also continued falling but not as rapidly as in the first half of the year when industry restored status quo after the traditional New Year surge of tariffs that this time was reinforced by the increase of social insurance rates. Within Q3 price projections of enterprises lost 11 points, in September – only 2 points.

Negative dynamics of sales forced industrial enterprises to more actively use price policies with a view to revive demand. While in September factory prices stopped growing, in October they started to decline absolutely. Last time industry resorted to this tool in December 2009. But then the actual lowering of prices was accompanied by projections of their traditional growth at the beginning of next year. In October 2011 the situation was principally different.

The decision of the RF Government to protract the raising of tariffs (that used to take place in January) and thus to smoothen the usual surge of prices at the beginning of the year prevented the traditional rise of enterprises' price projections at the end of the year. From the beginning of the second half of the year the balance of industrial price projections lost 17 points, from the start of the year – 40 points and was close to demonstrating the industry's intention to refrain from raising prices at the stage of projections as well. Similar situation was earlier observed only in 1998 and 2008.

In November industrial enterprises attempted to reverse the downward trend in price growth for the second time since the start of the year. The first attempt was made in May-July. Then price growth rates stabilized at the level of 11 points after 4 months of lowering from the record 47 points (the highest indicator in the post-default period). In November the general balance experienced actually no change and remained in the zero area: factory prices neither grew, nor fell.

In November price projections of enterprises were most seriously revised. While a month before growth expectations were minimal, at the end of the year industry planned to return to the sizable raising of prices. Within a month the balance of projections was up 9 points.

During almost all months of 2011 industrial enterprises pursued similar price policies of halting factory price growth after the January surge of this indicator that was due to both the man-made factors (the raising of unified social tax) and natural calamities (the drought of 2010). The combination of these two factors conditioned the soaring of price change balance up to the record level in January 2011. The end of the year was no less unique: in December 2011 enterprises shifted to quite an intensive lowering of their prices. Over the 17 years of monitoring a higher rate of decrease was observed only in December 2008 and in July 1998. And one more remark: within the pre-crisis 2008 the balance fell by 56 points (the indicator of the crisis December being -24 balance points), in 2011 – by 55 points (the December indicator being -8 balance points).

## Staff problems of Russian industry

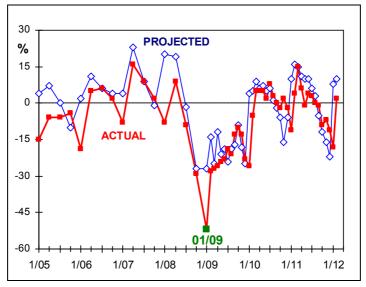
The dynamics of employment in Russian industry in 2011 experienced minimal state interference as regards both the prevention of dismissals at the stage of slowing recovery from the crisis and the provision of industry with personnel. In the situation of constant shortage of staff enterprises pursued cautious HR policies.

Last year the annual rates of employment change were close to zero, i.e. on the average the share of responses stating lay-off of employees was equal to the share of responses stating their hire. Similar result was obtained in 2010. In 2009 dismissals prevailed over hire by 23 p.p. But 2011 differs from all the previous crisis and inter-crises years by the maximum share of responses stating no change in the number of employed. This indicator reached 76% as compared with 73% in 2010. It was minimal (62%) in 2009 when dismissals in industry were most sizable over the whole period of monitoring actual employment in 2003-2011.

At the beginning of 2011 the number of employed in industry notably reduced. After 4 months of fluctuations around zero in late 2010, in January the initial (i.e. not adjusted for seasonality) balance of staff change lost 10 points and reached a 12-month minimum – enterprises carried out the most radical lay-offs (see *Fig. 22*). However, adjustment for seasonality reversed zero and negative balances into positive (i.e. industrial enterprises still hired staff).

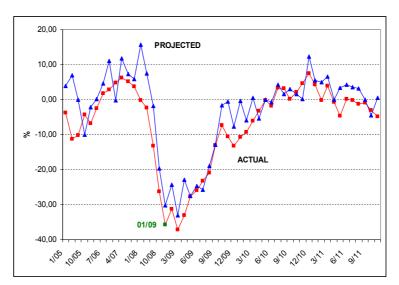
Equal by importance but opposite by direction changes took place in HR projections of enterprises. In January the initial balance of employment projections increased by 16 points, became clearly positive and reached a crisis maximum. In other words, after 3 months of prevailing lay-off intentions enterprises planned to switch to the most intensive recruiting of personnel. Adjustment for seasonality revealed the highest optimism of recruitment projections in December 2010 and its slight decline in January 2011.

Industrial enterprises were impelled to intensively hire personnel in order to adjust employment to demand projections. At the beginning of the year the balance between these indicators once again (similar to mid-2010) became negative – enterprises felt short of employees for the expected growth of sales and output. Facility projections also supported hopes for the resumption of demand and output growth. In January 2011 after 3 quarters of stabilization (in 2010) the balance of these projections fell by 11 points and became zero – industry got rid of surplus facilities (so far – only as related to demand projections).



*Fig. 22.* Change of employment (balance = % growth – % decrease)

In February enterprises resumed hiring of personnel (as judged from initial data). However, seasonal adjustment reduced this indicator down to zero implying that the recruitment was not intensive enough when compared with previous years. Meantime, the initial HR projections for March-April reached a crisis maximum (i.e. the prevalence of hire intentions over lay-off intentions in industry had never been so convincing since Q3 2008). Adjustment for seasonality lowered the post-crisis record but not much, leaving the early 2011 projections at one of the highest levels over this period (see *Fig. 23*). So, the high optimism of demand and output projections as well as the vanishing of labor surplus (however – only as related to demand projections) pushed up both the actual and the projected intensity of staff recruitment.



*Fig. 23.* Change of employment adjusted for seasonality (balance = % growth – % decrease)

The end of Q1 was marked by record by its intensity hiring of personnel in Russian industry. In March its rate increased up to +17 balance points and reached the maximum level of the last 4 years (!), i.e. such a massive recruitment had not been observed since the spring of 2007. Adjustment for seasonality lowered the initial result but not much, leaving it on the second place after an absolute post-crisis record of December 2010. So, in February enterprises made quite correct projections about the scale of personnel recruitment in March. Then they amounted to +15 balance points and reached a crisis maximum.

In April the rates of hiring employees in industry fell (when adjusted for seasonality – down to zero) after being maximal in March. HR projections underwent similar adjustment. It seems that enterprises continued hiring labor as a reserve because of the fear (quite well-grounded, by the way) to face a deficit of this input in case of sustainable growth of demand. Shortage of personnel as related to demand projections had been registered in industry since Q3 2010. In Q2 2011 it was recorded in all branches except for the construction materials industry.

Since Q2 2010 the shortage of personnel ranked third in the rating of constraints to industrial growth (as assessed by enterprises). Only insufficient demand and deficit of working capital were mentioned more often. In Q2 2011 32% of enterprises considered shortage of personnel to be a hindrance to output growth. The crisis (2008) minimum of its mentioning was 14% registered in Q2 and Q3 2009. The pre-crisis and absolute maximum equals 46% registered in Q3 2008.

In May industry halted (according to the initial data) the hiring of personnel that went on in the previous 3 months. After being record in March, the rate of employment growth lost 15 points within 2 months and approached zero. Further adjustment for seasonality revealed an absolute reduction of the number of employed. However, as judged from HR projections, at that time Russian industrial enterprises did not intend to continue lay-offs. In May the initial balance of HR projections remained actually at the April level and when adjusted for seasonality even improved.

In June in response to larger sales industry resumed hiring personnel and continued it in July which could be due to the persisting shortage of workers. According to estimates of enterpris-

es, in Q3 2011 industry still experienced deficit of staff as related to demand projections. It was registered at 15% of enterprises versus surplus of labor at 8% thereof. Both figures were close to the post-crisis records. As a result their balance fell down to nearly a post-crisis minimum. But at the stage of recovery from the crisis most enterprises still managed to improve labor sufficiency as related to demand projections. In Q3 2011 the share of enterprises with sufficient number of employees reached 78% which became an absolute record over the whole period of monitoring this indicator since 1996.

However, the deficit of personnel seems to have produced a positive effect on the Russian industry. Shortage of workers made enterprises improve the productivity of labor. In the middle of 2011 it was estimated as "normal" by already 70% of enterprises (see *Fig. 24*). The precrisis maximum equaled 65%, the crisis minimum – 44%. Fully satisfied with labor productivity were all enterprises in fuel industry and metallurgy, 86% - in chemical industry and 79% – in food industry. The lowest satisfaction with this indicator was noted in construction materials industry (49%), timber processing (55%) and consumer goods industry (56%). Such estimates of labor productivity by enterprises reduce the number of advocates of state industrial policies assessing its level as low and definitely requiring improvement.

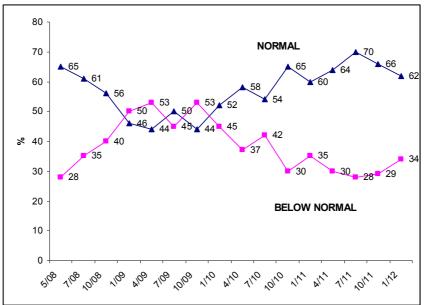


Fig. 24. Assessment of labor productivity by Russian industrial enterprises

Another consequence of the deficit of personnel was the growth of wages in industry or, to be more precise, - of the share of enterprises, the administration of which considered the level of wages to be "normal" and thus not requiring raising. In Q3 2011 such level of labor remuneration was attained at 65% of enterprises which was also an absolute record over the whole period of monitoring this indicator since 2007. The biggest share of enterprises with "normal" wages was observed in fuel, metallurgical, chemical and food industries.

In August the negative dynamics of demand resulted in the halting of personnel recruitment by industrial enterprises: in industry at large the share of responses stating expansion of staff equaled the share of responses stating its reduction. Adjustment for seasonality left the zero value of August balance unchanged. But in September industrial enterprises switched to dismissing employees. Then the intensity of dismissals was minimal but it was well "in tune with" the trend of the previous months. Projections of enterprises showed their readiness for more intensive lay-offs. Within a month the balance of HR projections deteriorated by 6 points and changed the sign: from +3 points in August (indicating moderate plans for hiring personnel) down to -3 points in September (indicating equally moderate plans to cut the number of employed). However, adjustment for seasonality leveled off the situation bringing the balance up to zero.

Large-scale dismissals started in industry in October. While in the previous 8 months enterprises managed to enlarge staff or at least preserve the number of employed, at the beginning of the IV quarter dismissals clearly prevailed over hiring according to both the initial and seasonally adjusted data. This was the case for actually all industries. The only exception was food industry where the balance remained zero. The most intensive lay-offs were registered in chemical, construction materials and consumer goods industries. Projections of enterprises definitely showed their intentions to go on cutting personnel and do so at even higher rates. Indeed, in November dismissals continued. The intensity of this process didn't change and remained at the October level – the highest since March 2010. Adjustment for seasonality gave similar results.

In December the intensity of lay-offs in industry again increased. The balance (rate of change) of this indicator fell to a 23-month minimum, i.e. the number of employed hadn't reduced so rapidly since February 2010. At the end of the year dismissal projections of enterprises also reached record levels since December 2009. This means that the most intensive over the past 2 years reduction of personnel is expected in industry at the beginning of 2012. The value of this indicator was only 10 points behind the record for the current crisis period (registered at end of 2008 - the beginning of 2009). Within 2011 the balance of HR projections lost 33 points and after August (as the crisis of Eurozone started to aggravate) became negative and fell by 20 points within 4 months. In Q4 last year dismissal (lay-off) projections prevailed in all industries and at all enterprises irrespective of their size and type of ownership. At the end of 2011 enterprises refrained from more massive lay-offs out of fear that in case industrial growth resumed they might fail to find necessary workers and restore the required production volumes. Russian industry remains in this situation since July 2010 when for the first time after the crisis one registered "the shortage of employees as related to demand projections". In October 2011 deficit of personnel was stated by 19% of enterprises which is a post-crisis maximum of this indicator. Before the 2008 crisis it amounted to 26%.

## Crediting of industry

In 2011 the credit terms for Russian industry improved by 5 percent points as compared with the 2010 annual average and approached the 2005 level (see *Fig. 25*). Just 9 percent points are separating this indicator from the best annual average registered in 2007. But its achievement in a short time is not as evident as it may seem. First, the bettering of credit terms over the past year is close to the average annual growth rates of this indicator in 2000-2007. Second, the post-crisis restoration of credit terms took place mainly in 2009 (then the indicator was up by 29 points and recovered all losses of late 2008) and is most likely over. The relationships between banks and industrial enterprises are entering the trajectory of smooth changing ("growth" doesn't seem to be the right term for it any longer). Third, the annual curve of credit terms for industry in 2010-2011 supports the thesis that their improvement withers

away. Fourth, in the situation of sluggish industrial growth enterprises themselves have smaller need for credits, the shortage of which is no longer a constraint to the increase of output in Russian industry (as stated by producers). It seems that insufficient crediting and low rates of its growth are now becoming a problem of banks rather than industrial borrowers.

At the same time, an insight into the overall picture of improving credit terms reveals the existence of "growth points" in Russian industry.

First, banks have reserves for softening the credit terms up to the pre-crisis levels depending on the size of an enterprise. The estimate of average annual availability of credits by size groups of enterprises indicates that banks have made the biggest progress in restoring the precrisis level of access to credits for very large entities (with over 1,000 employees). In 2011 the ""normal" average annual availability of credits for this category of borrowers amounted to 78% and was only 5 points behind the record set in 2007. In the group of large enterprises (with 251-1,000 employees) this indicator equaled 57% which was 12 p.p. below the 2007 record for this group. Small and medium enterprises (up to 250 employees) restored "normal" availability of credits in 42% of cases which is 16 p.p. below the pre-crisis maximum (see *Fig.* 26). So, banks can improve the general credit terms for industry primarily by more active crediting of small and medium business.

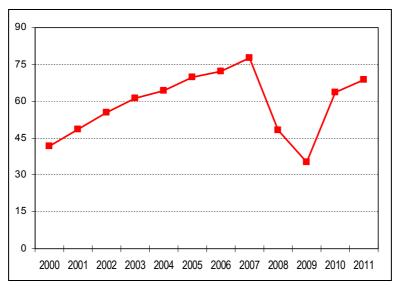


Fig. 25. Share of enterprises with normal availability of credits, %

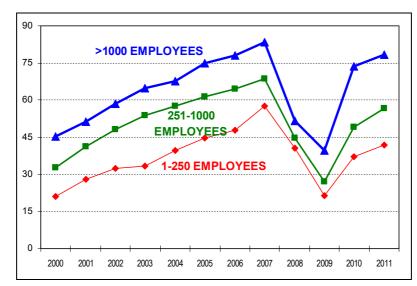


Fig. 26. Share of enterprises with "normal" availability of credits by size groups, %

Second, similar conclusions can be made when analyzing dynamics of "normal" credit availability by branches. The biggest progress in post-crisis crediting was made by banks in metallurgy where already in 2010 81% of enterprises had "normal" access to credits (which was only 5 points below the pre-crisis record) (see Fig. 27). But the slowing down of recovery from the crisis in 2011 halted the facilitation of access to credits and probably the very extension of lending scope in the sector as well. In machine-building banks followed quite different policies. In 2010 they improved the availability of credits therein up to the level of 64% and in 2011 raised it to 75%. As a result within 2 years the availability of credits grew by 41 p.p., with the 2011 indicator falling behind the pre-crisis maximum by only 4 points and ranking second among all branches (metallurgy showing somewhat better result). In case these trends continue, machine-building may leave metallurgy behind by the convenience of bank crediting as well. The restoration of access to credits in consumer goods industry faces more difficulties. In 2011 only 39% of enterprises stated "normal" availability of credits which is the lowest indicator among all industries. 22 points separate the current indicator from the pre-crisis maximum (the second result after timber processing). In 2011 banks began to tighten credit terms for the industry notwithstanding the fact that in 2010 the availability of credits therein was the lowest as compared with other branches.

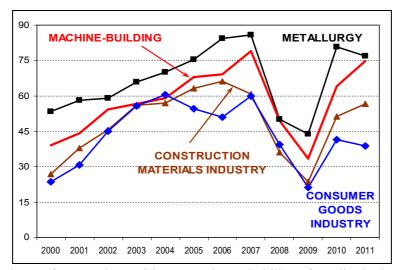


Fig. 27. Share of enterprises with "normal" availability of credits by branches, %

Let's examine the changes in credit terms for Russian industry in 2011.

At the beginning of the year the availability of credits for industry overcame the December drop of 2010. Then the indicator fell by 6 points and became an 8-month minimum. In January it grew by 8 p.p. and reached the pre-crisis level of summer 2008. The minimal interest rate on ruble credits charged by banks resumed falling. In January 2011 credit institutions were ready to lend rubles at 12.7% per annum on the average while enterprises considered "normal" interest rate to be 11.9% (the value of this indicator in case of "normal" availability of credits). The difference between the interest rate for very large enterprises and that for small and medium businesses was 4.5 p.p. although in September 2009 it hardly exceeded 1 p.p.

In February the availability of credits for industry failed to maintain the weak upward trend that formed in November and January. As a result 69% of industrial enterprises were satisfied with their access to bank credits. Meantime the priorities of banks didn't change. The most convenient credit terms were offered to enterprises in metallurgy (in January-February 85% of enterprises therein had "normal" access to credits, the minimal interest rate in February averaged 9.4% per annum), food industry (76% and 11.8%, respectively), chemical and petrochemical industry (72% and 11.2%) and machine building (74% and 12.0%). As usual, on the other pole were consumer goods industry (38% and 13.9%) and construction materials industry (53% and 14.5%). At the beginning of the year credits to small- and medium-sized enterprises (1-250 employees) were available at 14.7% per annum, to very large enterprises (over 1,000 employees) – at 10.6%.

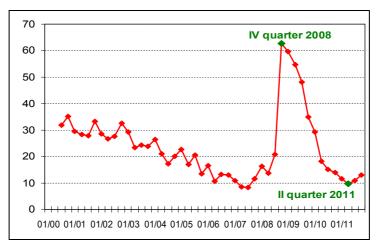
In Q1 2011 the need of industry for borrowed funds remained positive, i.e. the share of enterprises that planned to increase demand for credits (24%) was higher than that of enterprises that planned to reduce it (7%). As compared with Q4 2010 the balance (i.e. the rate of growth) of this indicator didn't change. But Russian industrial enterprises were not strongly concerned about the shortage of credits. On the one hand, in 2010 banks clearly softened credit terms as regards both interest rates and other parameters. On the other hand, slack economic growth conditioned low demand for credits by enterprises. Therefore, in Q1 2011 the deficit of credits had the smallest constraining effect on the growth of industrial output as compared with other inputs. At the beginning of the year the ability of industry to service credits amounted to 82%. The credit solvency was the highest in metallurgy (100% of enterprises considered themselves to be solvent), machine-building (83%) and food industry (82%).

Results of Q1 2011 revealed that banks restored credit terms for industry at large to the pre-crisis level and did not intend to further soften them. The evidence of that was the share of enterprises discontent with the availability of borrowed funds. Since August 2010 this indicator stabilized in the interval between 11% and 14%. In the pre-crisis period its smaller (i.e. better) values were registered only in summer 2007. Then 8% of enterprises weren't content with the terms of bank offers (the absolute minimum of 11 years of monitoring). In Q1 2011 ruble credits were available to enterprises at 12.6% per annum at best (similar indicator of the IV quarter of 2010 was 13.0%).

At the beginning of Q2 the terms of bank credits did not change. "Normal" access to credits was stated by 70% of enterprises in industry at large, by 92% - in metallurgy, by 71% - in chemical industry, by 69% - in machine building. The greatest difficulties in getting credits were encountered by enterprises in consumer goods industry (only 28% of them stated "normal" access to credit funds) and in timber processing (47%). At the start of the year the minimal interest rate charged by the banks also stabilized and amounted to 12.7% per annum. However, the shortage of credits had actually no effect on the output dynamics. In the II quarter of 2010 only 5% of enterprises considered it to be a constraint to production growth.

In the middle of the year the ability of enterprises to service credits already extended to them deteriorated. In May this indicator fell down to 81% (of the number of enterprises having debts under credits) from the record 87% in December 2010. This negative trend is due to an apparent worsening of enterprises' financial performance registered in Q2 2011. Coupled with an absolute decrease of sales and the lack of confidence in the future, it forced enterprises to revise their borrowing projections. In Q2 2011 this indicator fell to +10 b.p. down from +18 b.p. in Q4 2010. In the middle of the year the highest demand for credits was observed in electric power industry (+32 b.p.), timber processing (+19 b.p.) and consumer goods industry (+16 b.p.). The reduction of demand for credits was projected in metallurgy and construction materials industry.

Despite the uncertain economic situation the availability of credits for industrial enterprises continued to improve. In June 2011 only 8% of enterprises found that banks offered them too rigid credit terms. As a result this indicator reached the historical minimum registered in June 2007. Within Q2 2011 the average share of responses "below normal" in respect to the availability of credits fell to 10% down from 11.6% in the I quarter of 2011 (see *Fig. 28*). So, in the II quarter banks went on softening credit terms for industry. However, according to the data of RF Central Bank for Q1 of the year, they planned to stop this softening for corporate borrowers.



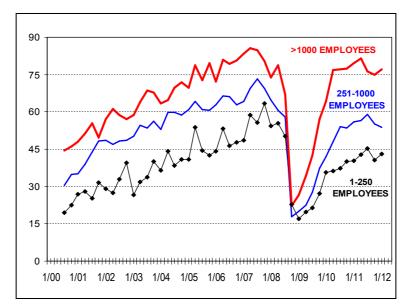
*Fig. 28.* Share of industrial enterprises with "below normal" availability of credits, average % per quarter

Judging by the dynamics of average minimal interest rates, banks made such an attempt in March-April when they raised the rate first up to 12.8% per annum and then – up to 13% from 12.5% charged in February. But the lack of demand for credits from industry, the pertaining surplus liquidity of the bank system and the difficulty of finding reliable borrowers once again forced banks to reduce interest rates down to 12.5% in May and 12.2% in June.

In July the credit terms for industrial enterprises did not undergo any principal change. The average minimal interest rate on ruble credits offered by banks to industry at large remained at the level of 12.3% per annum. The dependence of interest rate on the size of enterprise persisted as well. In May-July for small- and medium-sized enterprises credits were available at 14.8% per annum, for very large (over 1,000 employees) – at 10.5%.

In August the credit terms offered by banks to industry remained the most convenient from the onset of the crisis: 72% of enterprises considered them to be "normal" and 5% - even "better than normal". In June-August the latter indicator stabilized in the interval from 5 to 6% which was a sign of insistent offering of money (not much needed in the situation of sluggish demand) by banks to enterprises. In August the average minimal interest rate on ruble credits offered by banks remained at the level of 12.3% per annum.

Within Q3 the availability of credits for industrial enterprises fell by 3 points as compared with Q2 2011 when a quarter maximum (71%) of this indicator since the 2008 crisis was registered. In the second half of the year commercial banks seemed to start the tightening of credit terms that they had promised to the RF Central Bank. But they did it selectively. As judged by borrowers (see *Fig. 29*), this tightening affected only very large enterprises (with over 1,000 employees). However, it looked rational as it was this group of enterprises that enjoyed the most convenient credit terms in the first half of 2011, more rapidly regained the trust of banks in 2009-2010 and as a result actually restored the pre-crisis level of this indicator.



*Fig. 29.* Share of enterprises with "above normal" and "normal" availability of credits by size groups, average % per quarter

In October industrial enterprises did not experience the tightening of credit terms proclaimed by banks and expected by experts. The general estimate of "normal" availability of credits remained at the level of 68%. Very large enterprises were content with the availability to credits in 80% of cases while small and medium ones – in 35% thereof. Branch priorities persisted in the crediting of industry as well: while in metallurgy and chemical industry over 70% of enterprises had "normal" access to borrowed funds, in the consumer goods industry this share was only 35%.

In October the increase of interest rate charged by banks on credits extended to enterprises didn't take place either. Moreover, it fell to 11.8% down from 12.2% in September. For enterprises stating "normal" availability of credits the rate was as low as 10.8%. To small and medium enterprises credits were offered at 14.3% per annum, to very large (over 1,000 employees) – at 10.0%.

In November the terms of crediting Russian industrial enterprises didn't change. The share of enterprises with "normal" availability of credits stabilized at the level of 68% with the average minimal interest rate charged by banks remaining the same -11.8%. Banks reduced (although very slightly) only the surplus ("above normal") offering of funds. The share of credits being pressed upon enterprises fell from 6% in June to 3% in November. In the IV quarter of 2011 the most convenient credit terms were offered to ferrous metallurgy (82% - "normal" availability of credits, 10% - "above normal"), chemical industry (68% and 7%, respectively), machine-building (75% and 1%) and construction materials industry (68% and 1%). In food industry 58% of enterprises had "normal" access to credits and 4% - the one "above normal".

However, the projections of banks to credit primarily ferrous metallurgy will hardly come true. Most enterprises in the sector do not plan to enlarge the amount of borrowings in the coming months and prospective changes are likely to have the "minus" sign: in this sector the number of enterprises intending to reduce borrowings prevails over that of enterprises planning to enlarge them. At the beginning of 2012 the most active demand for credits is possible in the consumer goods industry (the balance of credit projections is +29 points), timber processing

(+25 points) and construction materials industry (+25 points). In the IV quarter of 2011 in industry at large the ratio of adequate credit supply by banks to credit projections of enterprises fell to 60% down from 69% in the III quarter while the share of "unsecured" industry projections grew up to 31% after being 22% a quarter before.

The improvement of credit terms for industry can be examined in connection with demand of enterprises for credits. Indeed, if banks offer very good credit terms to a certain group of enterprises but the latter do not need them or do not plan to enlarge borrowings, a greater availability of credits won't do much good. An opposite situation will be observed in the group of enterprises that intend to borrow more but have not deserved the respective loyalty of banks. Certainly, one can suggest that these are unreliable borrowers who want to get larger credits, and bank refusals to them are quite justified. But in any case such analysis involving principally new initial indicators (availability of credits, borrowing projections, ability to pay under credits, estimate of actual financial and economic performance of enterprises) can further the investigation of relationships between banks and industrial enterprises as regards the crediting of the latter.

The monitoring of enterprises' ability to service already received credits was launched in 2009 and now allows to estimate this indicator over the 3 recent years, which is certainly good but not comparable to opportunities for analyzing other indicators included in the IEP's business surveys and monitored for 10-15 and even 18 years. The first estimates (to be more precise – self-estimates) of the ability to service credits showed that only 61% of enterprises that had borrowed funds considered themselves to be solvable in 2009. For the first entirely crisis year this figure looked quite acceptable. But one should not exclude the possibility that it was overstated since a certain part of enterprises could have overestimated (either intentionally or unintentionally) their ability to pay under credits. 39% of enterprises openly admitted that they had credits but were not quite able to service them. The latter fact evidenced that respondents had enough trust in the surveyor and the data received in the course of surveys was quite reliable. In 2010 the ability of industrial enterprises to service credits grew up to 82%, in 2011 – up to 85% (see *Fig. 30*). So, the principal changes in industry's credit solvency took place in 2010 while 2011 consolidated the earlier made progress.

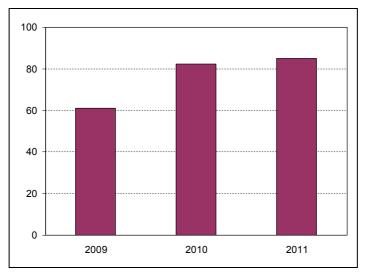


Fig. 30. Average annual share of enterprises able to service the received credits, %

The results of ranging branches by credit solvency of enterprises in 2011 were quite logical (see *Fig. 31*) given that not all enterprises in the sector but only the ones having credits were taken as 100%. Metallurgy with its great export potential and high degree of monopolization ranks first. In non-ferrous metallurgy the credit solvency amounts to unprecedented 97%. The third place expectedly belongs to food industry, the financial well-being of which is secured by regular demand of population for food. The fourth and the fifth places are taken by machine-building and construction materials industry, respectively, which can be explained by greater caution of banks when crediting these branches and the selection by them of really reliable borrowers. Chemical industry, timber processing and consumer goods industry round out the rating. While quite low credit solvency of consumer goods industry and timber processing seems quite understandable, the inclusion of chemical industry in this group is explained sooner by insufficient accuracy of banks when crediting enterprises of this branch than by poor financial performance of the latter.

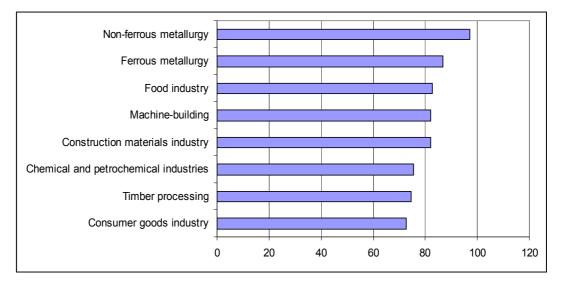


Fig. 31. Share of enterprises able to service the received credits by branches in 2011, %

Since in the regular IEP's questionnaires there are questions about both the availability of credits (i.e. the position of banks towards enterprises) and the ability of enterprises to service received credits (i.e. the self-estimate of credit solvency by enterprises), one can analyze to what extent these positions coincide (i.e. how adequately banks treat borrowers) or diverge (i.e. how mistaken are banks in estimating the credit solvency of enterprises). Two types of bank mistakes can be examined:

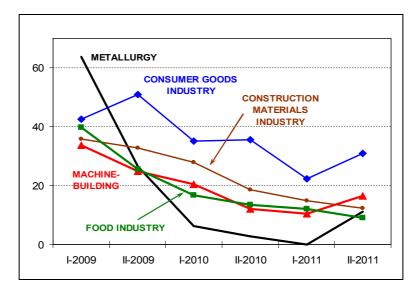
- a) banks are too stringent in their estimates of credit solvency and do not extend credits to enterprises that could well pay under them;
- b) banks inconsiderately credit enterprises unable to service credits.

In 2011 the estimates of credit availability and credit solvency on the average coincided for 75% of enterprises having liabilities to creditors. This is the best result since the start of monitoring in 2009. As compared with 2010 the indicator grew by only 3 p.p. while between 2009 and 2010 the increase was as big as 15 points. So, by 2010 industrial enterprises and banks had largely overcome the crisis of confidence between creditors and borrowers and in 2011 the situation improved just slightly.

Within 2011 the best result was registered in Q1 when the availability of credits and credit solvency coincided for 80% of enterprises. Then this indicator fell down to 75, 72 and 74% in the respective quarters of the year. Unfortunately, this coincidence between estimates of enterprises and banks can be compared only with the figures for early 2009 when the economy had already touched the bottom of the crisis and started a slow recovery from it. In Q1 2009 banks extended credits in accordance with credit solvency of borrowers to only 47% of enterprises. For the remaining 53% the availability of credits did not coincide with their credit solvency. As it was noted, this non-coincidence was of two types. Ill-considered crediting of enterprises that should not be credited amounted then to 10%. But the major mistake of banks was lower availability of credits as compared with credit solvency of borrowers. In Q1 2009 the share of such mistakes was 43% which is the maximum value over the 16 quarters following the onset of the crisis. Then the level of mistakes of this kind started to reduce and by Q3 2010 fell down to 10% - its minimum value. But by the end of 2011 banks were over-cautious in respect to already 19% of industrial enterprises. The level of mistakes of opposite kind (crediting of enterprises that should not be credited) within the 3 years rose up to 14% at the most and only twice surpassed the level of over-caution mistakes.

In 2011 banks most often were over-cautious when crediting timber processing. 39% of enterprises in this branch considered that banks underestimated their ability to pay under credits and limited their access to bank loans. The second place with a big gap belonged to consumer goods industry where the level of over-caution was 27%. Then followed chemical industry with 15% and construction materials industry with 14%. The maximum coincidence between assessments of banks and enterprises was registered in ferrous (with the level of banks' overcaution being only 9%) and non-ferrous metallurgy (where the estimates of credit availability fully coincided with the estimates of credit solvency).

The dynamics of unduly limited access to credits relative to credit solvency of enterprises in 2009-2011 shows the development of relationships between banks and enterprises at the stage of recovery from the crisis that started in late 2008. In Q1 2009 banks had the weakest confidence in enterprises of metallurgical sector (see Fig. 32). Then 63% of enterprises in this branch assumed that banks unreasonably constrained their access to credits. But already in a year the metallurgical sector fully restored the confidence of banks and became the leader by this indicator. And one more year later the estimates of credit availability made by enterprises absolutely coincided with the estimates of their credit solvency made by banks, i.e. not a single enterprise in the sector assumed that banks unreasonably constrained its access to credits relative to its credit solvency, and 4% even found that banks overestimated their solvency when providing access to loans. Other branches started recovery from the crisis in more favourable conditions as regards availability of credits but the restoration of banks' confidence in their solvency proceeded at lower rate. However, by the end of 2011 the level of unreasonable limitation of access to credits had almost evened out in most branches. An exception was consumer goods industry where 31% of enterprises believed that banks tightened credit terms for them relative to their actual credit solvency. Similar estimates were made in timber processing. But since 60% of enterprises in these branches found that banks provide them access to credits in accordance with their credit solvency, one can hardly consider the terms of crediting these sectors to be unreasonably stringent.



*Fig. 32.* Dynamics of unduly limited access to credits relative to credit solvency of enterprises by branches, average % per 6 months

In 2011 significant (although quite explainable) differences in the level of banks' overcaution were also registered for enterprises of different sizes. While small enterprises (up to 100 employees) find that banks unduly limit their access to credits in 37% of cases, in the group of medium-sized enterprises (from 101 to 250 employees) this indicator is 29% and loses 10 more percent points for the group of enterprises employing from 250 to 1,000 workers – there it totals 19%. And for enterprises with over 5,000 employees the level of unreasonable non-confidence of banks as regards their solvency is as low as 8%. Banks are more aware of the solvency of such enterprises and respectively are more precise in establishing credit terms for them.

According to estimates of enterprises in 2011 the credit terms for industry were the best in the post-crisis period. However, in the second half of the year the positive dynamics of monitored indicators discontinued pointing to the exhaustion of banks' capabilities to soften credit terms. Still, in the situation of sluggish recession the industry's demand for credits is almost fully satisfied. Therefore the possible tightening of credit terms in case of preservation of the current macroeconomic trends won't create much problem for the Russian industry.

Response of industrial enterprises to the raising of compulsory insurance contributions (unified social tax – UST)

In May 2010 we included in the regular business survey the question about how enterprises SUPPOSED to respond to the raising of contributions for compulsory pension, social and medical insurance (UST) from 26% to 34% in 2011. A year later we again posed this question but then industrial enterprises were to describe their ACTUAL response to the tax innovation. This allowed us to get adjusted and most reliable first-hand information on the response of enterprises to higher tax burden which seemed to be quite timely in the situation of heated dispute about the abolition of this new regulation.

The most commonly projected response of enterprises to the raising of UST (let's use this elder term) in the period of its active discussion in 2010 was the lifting of prices (see *Fig. 33*). 70% of enterprises planned to resort to it. This share was the highest for small enterprises (less

than 100 employees) -82% of them made such projections. The analysis by branches showed that the raising of prices was most likely in consumer goods industry, machine-building, chemical and petrochemical industries. 80% of state enterprises, 68% of open joint-stock companies, 73% of closed joint-stock companies and 80% of limited liability companies reported their intention to lift prices.

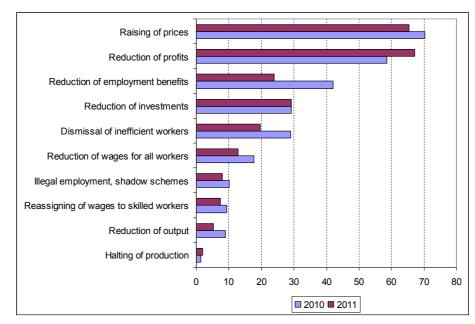
In 2011 65% of enterprises stated that they actually raised prices in response to higher UST. The deviation from the projected 70% is very small. Small enterprises decided to do it in only 65% of cases; the leaders in this respect (77%) were entities employing from 251 to 500 workers. As projected, consumer goods industry used the raising of prices as a protective measure against new UST most often as compared with other industries (in 85% of cases), then followed machine-building (78%) and chemical industry (71%). Meantime, in the food industry only 42% of enterprises reported the increase of prices although 64% of them planned to do it. Apparently, the autumn-winter (2010) period of higher prices for food products enabled the industry to alleviate the problem of UST. State enterprises raised prices in 80% of cases just as they had projected. The leaders by price growth were limited liability companies (89%).

The lowering of profits, i.e. the readiness of enterprises to cover the increase of compulsory insurance contributions at their own expense, ranked second among possible responses to higher UST. In 2010 59% of enterprises mentioned it. Almost all enterprises in fuel industry and ferrous metallurgy, <sup>3</sup>/<sub>4</sub> of enterprises in timber processing and about 60% of enterprises in non-ferrous metallurgy and machine-building were ready to take such a step. On the other pole was consumer goods industry where only 30% of enterprises could afford using profits for payment of higher contributions.

The 2011 survey revealed that profits became the most commonly used source of funds for meeting public commitments. 67% of enterprises resorted to it. In food industry, timber processing and metallurgy profits were used for this purpose by 80% of enterprises. This fact seemed to have a negative effect on the estimates of financial and economic performance of enterprises in the II quarter of 2011 when it clearly deteriorated. For the first time since January 2009 the balance of estimates decreased and the decrease was quite sizable – from -5 to -13 points. This was the result of higher share of "poor" estimates (up from 15 to 21%) and the dropping share of "satisfactory" estimates (down from 71 to 65%). At the stage of recovery from the crisis these indicators had never demonstrated negative dynamics before.

In 2010 29% of industrial enterprises intended to cut investments in case of higher tax burden. These projections turned out to be quite precise. In 2011 the same 29% of enterprises actually responded to tax innovations in such a way. A year before this response was most frequently mentioned as possible in non-ferrous metallurgy (49% of enterprises stated such intentions in 2010 and 39% actually halted development plans in 2011), timber processing (46% and 39%, accordingly) and consumer goods industry (40% and 34%, accordingly). In 2011 machine-building also joined the group of leaders by the decrease of investments due to higher UST: 31% of enterprises in the industry had such intentions and 36% actually materialized them.

In 2010 the reduction of employment benefits (voluntary health insurance, other social benefits to employees, soft loans) ranked third by popularity among 10 possible responses to higher UST rates. Most frequently it was mentioned by large enterprises (which is understand-able as such benefits are more widely spread in this group), enterprises in non-ferrous metal-lurgy and construction materials industry.



*Fig. 33.* Projected (2010) and actual (2011) responses of enterprises to the raising of compulsory insurance contributions, as % of respondents

But the actual saving at the expense of employment benefits turned out to be more modest. In 2011 only 24% of enterprises reported using such "sources of financing" bigger expenditures on UST. The accuracy of enterprises' projections regarding this protective measure was the lowest. As a result by the frequency of actual application it stepped backed to the fourth place. It was more often used by small enterprises than by large ones. Among industries the leaders were food industry, timber processing and non-ferrous metallurgy.

Dismissals of inefficient workers due to higher rates of UST were planned by 29% of enterprises in 2010. They could be most sizable in non-ferrous metallurgy and consumer goods industry. Actually 20% of industrial enterprises (first of all small and very large ones, engaged in machine-building and consumer goods industry) managed (opted) to take such steps.

In 2010 18% of enterprises planned to lower wages in order to reduce the amount of compulsory insurance contributions. This measure was more popular with small enterprises; the probability of its implementation reduced in line with the growth of enterprise size. In ferrous metallurgy and construction materials industry 25% of enterprises were ready to take such unpopular steps. However, in 2011 only 13% of enterprises actually cut wages. As expected, small enterprises resorted to this measure more often. Among branches only food industry stood apart with the indicator amounting to 24%.

To our mind, the low popularity of responses affecting employment and labor remuneration can be explained by big problems that Russian enterprises encounter and will continue to encounter on the labor market. On the eve of 2008 crisis the availability of skilled personnel became a serious constraint to production growth in Russian industry. Half of enterprises stated that in July 2008. At the stage of recovery from the crisis producers start to realize that labor can soon become the scarcest resource. The shortage of personnel relative to "expected changes in demand" has long been observed in industry. Therefore the solving of problems at the expense of workers is the last thing enterprises are going to do. In 2010 only 9-10% of enterprises projected to use "criminal" protective measures (reassignment of wages to the most qualified workers with further redistribution "in envelopes", the reduction of these payments by means of illegal employment, the general escape into the shadows). In 2011 7-8% of enterprises implemented these schemes.