

Chapter 3. Real Sector

3.1. Macrostructure of Production

3.1.1. Impact of Domestic and Foreign Demand on the Dynamics and Structure of GDP in 2008–2009

Vigorous expansion of the Russian economy, which in 2003–2007 was determined by annual average GDP increment at about 7%, by investment in fixed capital at about 14%, and by final household consumption at 11%, notably slowed down in 2008. GDP growth amounted to 5.6% in 2008 and approached 2001–2002 levels, which were minimal for the entire decade of restorative development. Slowdown of investment in fixed capital in 2008 to 9.1% against 21.1% in 2007, which was not offset by corresponding consumption growth of the population determined gradual contraction of domestic demand. In the wake of the growing inflation and slowdown in real income growth rates of the population to 2.7% against 12.1% in 2007 and real wages and salaries to 9.7% against 17.2%, retail turnover growth rates constituted 113.0% and were by 3.1 percentage points below the level of the preceding year, and paid services delivered to the population – by 104.9% against 107.9% a year ago. Slowdown of industrial output rates to 102.1% against 106.3% in 2007 exerted a significant effect on the domestic market (*Table 1*).

Table 1

Principal Indices of Macroeconomic Indicators in 2008–2009, in % to Preceding Year

	2008					2009				
	year	quarter				year	quarter			
		I	II	III	IV		I	II	III	IV*
Gross domestic product	105.6	108.7	107.5	106.0	101.2	92.1	90.2	89.1	91.1	97.4
Expenditure on final household consumption	111.3	112.2	113.4	112.2	108.0	91.9	96.8	93.0	88.4	89.0
Investment in fixed capital	109.8	123.6	117.4	111.7	97.7	83.0	84.4	79.0	81.0	86.9
Commissioning of new residential housing	105.3	108.1	99.1	105.7	105.1	93.3	102.4	97.2	98.9	85.9
Industrial output volume	102.1	106.2	105.5	104.7	93.9	89.2	85.7	86.4	89.0	97.4
Natural resources production	100.2	100.7	100.3	100.6	99.0	98.8	96.2	96.9	97.8	103.9
Manufacturing industries	103.2	108.7	108.1	106.4	92.3	84.0	79.2	78.4	85.0	93.5
Electricity, gas and water production	101.4	105.6	102.1	104.3	94.6	95.2	94.9	93.7	89.7	100.4
Agricultural production	110.8	105.5	106.9	113.0	115.6	101.2	102.3	100.9	98.0	106.4
Transportation turnover	100.7	105.1	102.9	101.4	93.6	89.8	83.7	81.3	93.2	101.8
Retail turnover	113.5	117.2	114.8	114.9	108.6	94.5	99.9	94.4	90.8	93.9
Paid services delivered to the population	104.9	107.7	105.6	105.3	102.0	95.7	99.1	95.3	93.7	95.1
Foreign trade turnover	132.2	148.8	147.9	149.3	95.4	65.0	56.2	55.5	60.0	91.2
Export	133.1	153.3	151.3	152.8	89.5	64.3	52.1	53.9	60.3	97.0
Import	130.6	140.8	143.0	142.1	105.3	66.0	63.7	58.2	59.5	83.4
Real disposable money income	101.9.7	107.5	105.7.0	104.56	93.1.2	102.3	100.4	103.1	96.8	108.6
Real wages and salaries	111.5	113.4	112.5	112.2	105.0	97.2	99.2	96.1	94.8	99.0
Real pensions	118.1	119.0	113.9	122.7	116.9	110.7	106.1	113.3	109.1	114.2
Average annual number of employed in the economy	100.6	100.8	101.2	100.7	99.6	97.6	97.7	97.1	97.9	98.8
Total number of unemployed	104.4	96.5	94.2	105.6	123.7	131.7	134.8	152.1	132.2	112.0
Number of officially jobless claims	89.7	89.7	89.3	88.9	91.1	148.9	126.5	157.4	163.0	152.3
Consumer prices indices	113.3	104.8	103.8	101.7	102.5	108.8	105.4	101.9	100.6	100.7
Foodstuffs	116.5	105.7	105.4	100.7	103.9	106.1	105.0	101.9	98.9	100.3
Non-food products	108.0	102.0	102.4	101.9	101.4	109.7	103.8	102.4	101.9	101.2
Paid services	115.9	107.5	103.1	102.9	101.6	111.6	108.5	101.0	101.3	100.6
Price indices of industrial goods producers	93.0	103.0	113.6	100.5	79.1	113.9	104.4	105.3	104.5	99.1
Mineral resources production	61.6	93.8	126.1	94.4	55.1	149.2	108.5	127.9	110.6	97.3
Manufacturing	101.9	104.0	111.7	103.0	85.2	105.9	101.3	101.5	103.6	99.4
Electricity, gas and water production	118.0	119.0	99.2	102.0	98.1	118.3	118.1	99.7	100.2	100.3

* Preliminary data

Source: Federal service of state statistics.

Macroeconomic situation in 2008 was determined by utmost instability of main indicators over the entire year. GDP growth rates slowed down from 8.5% in the 1Q to 1.2% in the 4Q. Sluggish growth of the first half of the year backed by accumulated potential and favorable trend in the world market for mineral resources, in the second half of the year changed to a downturn trend in the economic development and was determined by a sharp deterioration of foreign economic trend and by a crisis of financial and credit institutions. In September-December 2008 the situation was aggravated by extension of the crisis to the entire economy. Highest cuts in output were recorded in construction, transportation and industrial sectors. The volume of industrial output in the 4Q 2008 constituted 93.9%, merchant cargo turnover – 93.3% of the same period a year ago. Slowdown in investments in fixed capital lasted two quarters in a row, and in December 2008 their volume was lower by 2.3% against December 2007. Gross capital formation in 2008 was estimated at 110.3% against 121.1% in 2007.

Commerce took over pole positions in the national economy starting with the second half of 2008. The share of wholesale and retail sectors in GDP constituted 21.7% in 2008. Consumer demand continued to be determined by household expenditures. Numbers for household consumption in 2008 constituted 11.5% against 13.6% in 2007. However, due to downward trend in labor compensation and consequently in income there was stagnation in retail turnover and paid services delivered to the population. In spite of the fact that retail turnover volumes in the 4Q of 2008 decelerated to 8.2% against 16.7% in the same period a year ago, and investments in fixed capital were cut down to 1.9% against 20.6% in 2007, they helped maintaining positive trend in GDP growth in October-December, although at the minimal level observed since 2001.

Economic expansion in 2006-2008, essentially, represented a stage of quantitative accumulation and was not accompanied by structural changes in the investment sector, foreign trade, production, as well as by institutional reforms ensuring favorable conditions for effective activity of economic agents. This fact has predetermined vulnerability of Russian economy in the wake of the global changes which took place in the world markets.

Economic slowdown over entire 2008 and the recession in 2009 were caused by simultaneous contraction in foreign and domestic demand. Where by the end of three quarters of 2008 domestic demand constituted 11.1% against 13.6% in 2007 and notably exceeded external demand, which allowed to offset reverse effects of negative global business environment in commodities and financial markets, then from November-December 2008 the situation takes a U-turn. Slump of world prices on raw materials and a dip in world demand observed since the 3Q 2008 was accompanied by a fall in export volumes in physical and value terms. In the 4Q 2008 export in value terms fell by 10.5% and by 8.3% (according to SNA methodology) regarding similar period of a year ago.

Contraction in export volumes amid threefold slump in domestic demand dictated downward trend in GDP growth in the 4Q to 1.2% against the same period of the preceding year. This trend was aggravated by a large scale capital outflow. If in the 1Q of 2008 there was an upward trend of foreign capital inflow in the volume of USD 17.4 bn, then in the 2Q capital outflow reached USD 149.8 bn. Aggregate impact of the factors determined a recession observed at the onset of 2009.

Under the effect of the contraction of investments, industrial and consumer demand observed in the 1Q of 2009, GDP fell by 9.8% amid approximately similar rates of contraction in domestic and external demand to stand at 14%. Capital outflow in the 1Q remained at a rather

high level and constituted USD 35.1 bn under average value of USD 43.5 bn in October-December 2008.

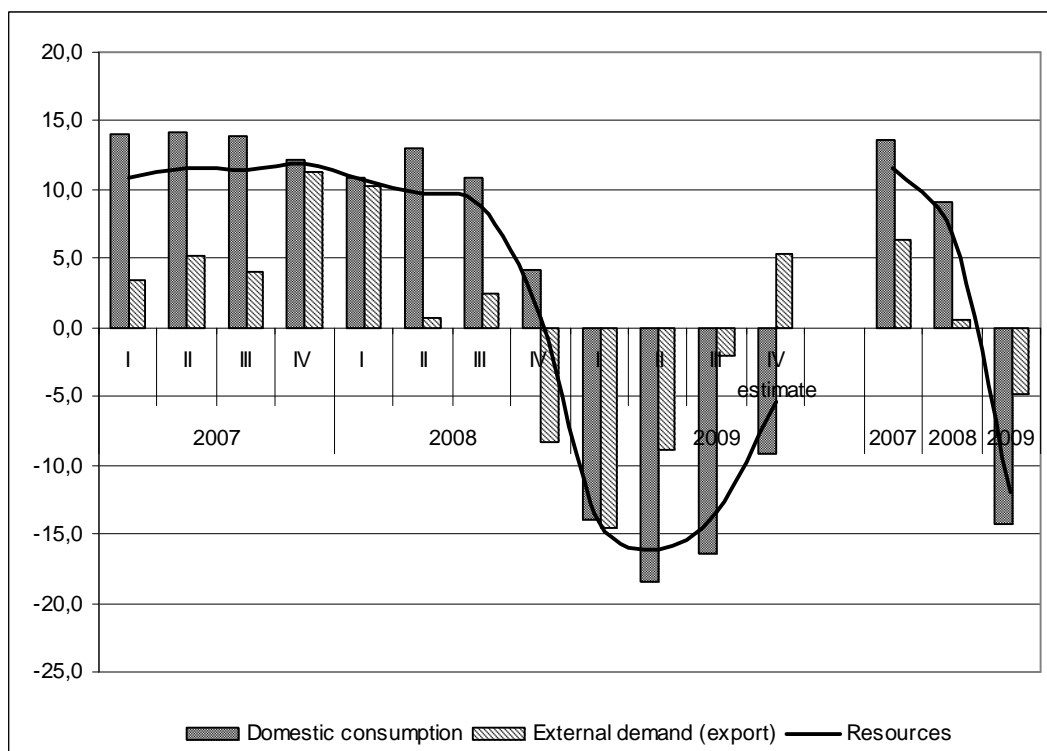
From the 2Q of 2009 against the background of gradual revival of world mineral resources market and adjustment of financial institutions to the crisis developments, economic recession marked gradual dissipating of momentum. In the first half of 2009 GDP contracted by 10.4% and in the third quarter – by 8.9%, in the fourth quarter recession slowed to 2.6% against the same period of a year ago. Note that this trend was due to gradual dissipating of momentum of export contraction (external demand). On the whole, at year end (2009) GDP averaged at 92.1%, and export in physical terms – 95.2% against preceding year.

Due to gradual revival of world prices on hydrocarbons from the 2Q of 2009 export contraction slowed in comparison with corresponding period of the previous year, and against preceding quarter of 2009 export marked an upward trend.

This development, undoubtedly, positively affected industrial output. From the 2Q of 2009 recession in domestic production slowed mainly due to output of the external sector and export of fuel and energy resources, and from the 3Q that was true of manufacturing industries. In the fourth quarter of 2009 amid industrial output reduction by 2.6% against the fourth quarter of 2008, extraction of natural resources marked upturn by 3.9%. Quarter on quarter recession in domestic market conditioned by the contraction in consumer demand under the impact of household income downturn, as well as by negative trend in the investment sector remained as a warning sign in the 2-3Q 2009. Volatility of recovery trends from the consequences of the global crisis and recession in domestic market, high risks have led to resumption in capital outflow in volumes comparable to those recorded at the onset of the year – USD 33.4 bn, which entirely offset positive impact of capital inflow at USD 4.5 bn recorded in the second quarter of 2009.

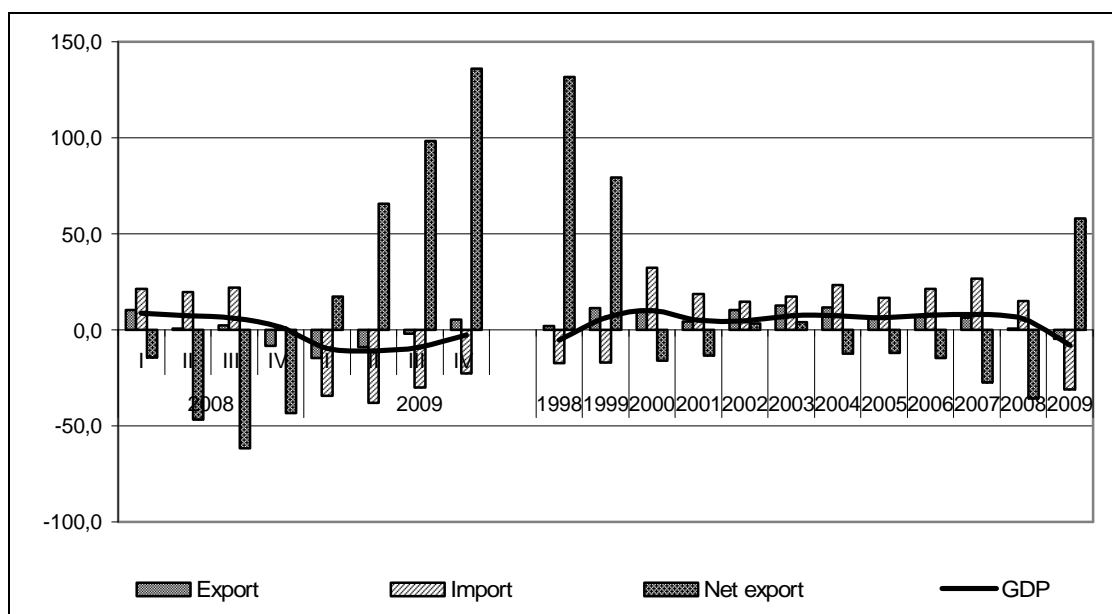
Trend in the 4Q was due to restorative export upsurge (in domestic prices according to SNA methodology) against similar period of 2008. Upward trend in economic contraction, positive projections for the future of Russian economy coupled with revision of international ratings from negative to stable favorably affected the financial sector and contributed to the inflow of capital at USD 11.6 bn. As a result, on the whole by the year end (2009) capital outflow constituted USD 52.4 bn against USD 132.8 bn a year ago.

Upward revision of the credit rating of Russia from negative to stable and confirmation of the currency rating at the level of BBB by Standard & Poor's represented positive signs. It is worth noting that a year ago S&P was one of the first who reacted to the financial crisis in Russia by decreasing sovereign credit rating on obligations in domestic and foreign currencies from BBB+ to BBB and constructing negative projections. After S&P have positively revised its projection only Fitch maintained negative projection on sovereign credit rating of Russia at the level of BBB. Earlier Moody's downgraded Russia's sovereign credit rating to Baa1, however, with a positive projection. S&P experts noted that positive revision of rating would depend on strict control over budget expenditures over the next annual cycle and consistency of promotion of declared structural economic reforms.



Source: Federal service of state statistics.

Fig. 1. GDP Adjustment along Domestic and External Demand Components in 2007–2009, in % to Corresponding Quarter of the Preceding Year



Source: Federal service of state statistics.

Fig. 2. Changes in Dynamics of GDP, Export, Import and Net Export in 1998–2009 and Quarter-on-Quarter of 2008–2009, in % to the Corresponding Period of a Year Ago

When analyzing the effect of the movement and structure of foreign economic turnover in the heat of 2009 crisis, one should pay attention to the fact that reduction in physical volume of export was relatively insignificant amid import volumes collapse (*Fig. 2*). As a result, for the first time since 1998 crisis, dynamics of net exports posted positive indices and exerted positive impact on macroeconomic indicators.

It is worth noting that the period of 2000-2008 was marked by higher-than-anticipated growth of imports against exports both in physical and value terms, which, finally, led to an absolute reduction in the share of net exports in GDP. If in the 4Q of 2008 rates of imports growth in physical terms marked positive trend and constituted 101.2%, then in the 1Q of 2009 there was a slump at 34.3% and in the 2Q – at 37.9% against corresponding period of a year ago. Contraction of Russian imports was due to the devaluation of the exchange rate of the ruble, fall in real household income, contraction of investment, and difficulty in obtaining credits by trade firms.

Furthermore, amid devaluation of the exchange rate of the ruble, contraction of imports in value terms was very sharp and constituted in the 2Q 58.2% of the same period of 2008, in the 3Q – 59.3%, and for the entire year averaged 66.0%

Reduction in import volumes significantly affected the behavior and structure of the domestic market. Analysis of the domestic market resources shows that since 2005 there was a positive trend in imports share in commodity turnover and investments. The share of import in the structure of stock of goods in the retail sector in 2008 went up to 47% against 45% in 2005 and 40% in 2000. At the same time, this growth came on the back of increased share of non-food products; meanwhile the share of foodstuffs remained practically unchanged. In 2008 import of foodstuffs in the structure of stock of goods in the retail sector constituted 34.0% and of non-food products – 54.4%. High ratio of foreign made goods ensured the balance between demand and supply also in the investment market. In the investment market the share of import of investment in machinery and equipment went up to 20.0% in 2008 against 17.8% in 2007. Although growth of imports contributed to the formation of competitive environment. However, high share of imports in the retail sector turnover and in the investments in machinery, equipment and means of transport increased dependency of goods balance in domestic market on the fluctuations in foreign economic environment. The first warning sign was observed in 2007 when to an increase in world food prices the Russian economy responded with contraction of imports and increase in domestic prices on imported and domestic products. However, adopted measures aimed at market stabilization amid high growth rates of domestic output down to mid-2008 ensured dynamic expansion of retail sector turnover.

From the 4Q 2008 behavior and structure of domestic market was changing under the influence of simultaneous contraction both of goods volumes and domestic production, and imports. According to estimates, in 2009 imports in physical terms contracted by about 31%, output of domestic products of final consumption and services – by about 2.7%, which resulted in contraction of domestic market by 14.3%. This situation was true of the 1998 crisis.

Large scale reduction in import volumes in 2009 determined structural changes in stocks of the domestic market. Against the background of contraction of domestic demand, reduction in household income and devaluation of the exchange rate of the Ruble there was strengthening of domestic producers' position in the consumer market. By the 3Q of 2009 on the domestic market the share of imports in stock of goods in the retail sector fell to 41%. At the same time, simultaneously there were unfavorable changes in the general structure of imports, when sharp

reduction in import of investment products was taking place amidst reorientation to import of consumer goods and products of intermediate demand (*Table 2*).

Table 2

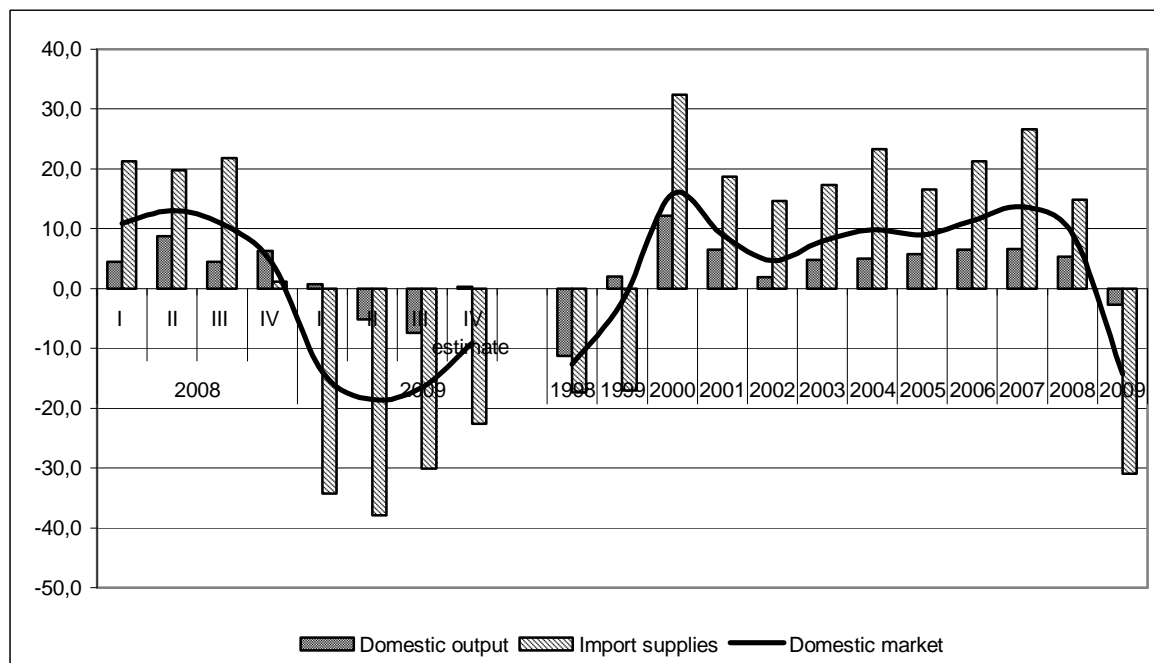
Proportion of Consumer, Intermediate and Investment Products in the Overall Volume of Imports to the Russian Federation (Balance of Payments Methodology, in % to total)

	Products		
	consumer	investment	intermediate
	2008		
I quarter	45.0	22.6	32.4
II quarter	41.3	23.9	34.8
III quarter	43.6	24.2	32.2
IV quarter	37.8	24.4	37.8
Year	41.8	23.8	34.4
	2009		
I quarter	46.8	18.6	34.9
II quarter	44.0	18.1	38.4
III quarter	43.8	19.7	36.6

Source: Federal service of state statistics.

It is worth noting that the factor which maintained domestic market in the first half year of 2009 represented accumulation of stocks of end products summarizing 2008 results. Excess of supply over demand which emerged for the first time since 1998 financial crisis exerted ambiguous effect: on the one hand, in the first half of 2009 slump of domestic output against the background of demand contraction turned out to be especially deep, and on the other hand, the use of stocks partly offset the drop in imports, which share in the stocks went down by 6.3 percentage points in comparison with the same period previous year. In the 3Q of 2009 the situation notably deteriorated due to inventory depletion and strengthening of the downward trend of supply of domestic goods and services in the domestic market. Contraction of effective demand, deficit of current assets required for purchasing raw materials, high cost of credits strengthened the impact of negative factors on the performance of national economy. However, highest since the onset of 2009 drop in supply of domestic goods and services was partly offset by expansion of imports against the preceding quarter of the current year, and which allowed weakening the downward trend of domestic market contraction. In the 4Q of 2009 amid further slowdown of contraction of imports and stabilization of supply of domestic goods and services, domestic market demand fell by 9.2% against 14.6% on average for January-September 2009. At the same time, in October-December 2009 significant reduction in recession rates of both investment and consumer markets could well be observed.

Analysis of economic dynamics across components of external and domestic demand demonstrates exceptionally high dependence on foreign economic factors. Absence of significant structural changes, inertia development of both export-oriented sectors and goods production for the final consumption, based on the extensive use of principal factors, high share of imports in the stocks of domestic market conditioned low competitiveness of Russian economy in the wake of the restorative growth in 2000-2008 and represented factors characteristic of deep systemic crisis of 2009.



Source: Federal service of state statistics.

Fig. 3. Changes in Growth Rates of Domestic Demand across Components in 1998– 2009, quarter-on-quarter 2008–2009, in% to the Corresponding Period Preceding Year

3.1.2. Principal Features of GDP Usage

In the wake of the growing global crisis and contraction of the revenues of the economy, modification in ratio between gross national savings and final consumption could well be observed since 2008. At the end of 2009, the share of gross national savings in GDP fell to 25.3%, which is comparable with crisis 1998 year. Net reduction in the national savings' volume came on the back of contraction of both net exports and gross capital formation by means of sharp decrease of stocks.

Sharp decline in the investment growth rates, commissioning of fixed assets and rapid increase in the unfinished construction in 2007-2008 exerted negative influence on economic performance in the end of 2008 and on the situation in 2009. Amidst the situation formed in the capital and saving market, the share of investments in fixed capital in GDP fell by 1.9 percentage points in 2009 against the corresponding period of the preceding year and constituted 19.3%.

Parameters of 2009 were determined by the downward trend in the investment movement. At the same time, curtailing of the investments took a more negative form than GDP dynamics. In 2009 there was a U-turn in the investment trend which was effective during 2000-2008, and for the first time since 1998 crisis, and a slump in the investment into fixed assets was recorded (a slight contraction was observed in 2002) (Table 3.). Fall of investments into fixed capital in 2009 constituted 17.0% amidst GDP contraction by 7.9% against correspondingly 12.0 and 5.3% in 1998.

Table 3

**Structure of GDP Usage on Gross Savings and Investments in Fixed Capital
in 2008–2009 in Current Prices, in % to Total**

	2008					2009				
	year	quarter				year	quarter			
		I	II	III	IV		I	II	III	IV
GDP	100	100	100	100	100	100	100	100	100	100
Of which:										
Gross saving	34.3	32.5	35.8	38.5	31.2	25.3	18.5	22.0	29.6	29.0
Reference:										
Share of investment in fixed capital in GDP	21.2	15.1	20.1	20.7	26.8	19.3	15.1	18.5	18.9	23.7

Source: Federal service of state statistics.

Since the 4Q of 2008 the share of expenditure on final consumption in GDP structure went systematically up which was conditioned by contraction of output volumes in GDP. Thus, amid limited resources, expenditure on final consumption in 2009 took the lion's share in GDP – 74.7% against 65.5% in 2008 (Table 4).

Table 4

**Structure of GDP Usage in 2008–2009,
quarter-on-quarter, in % to total, in current prices**

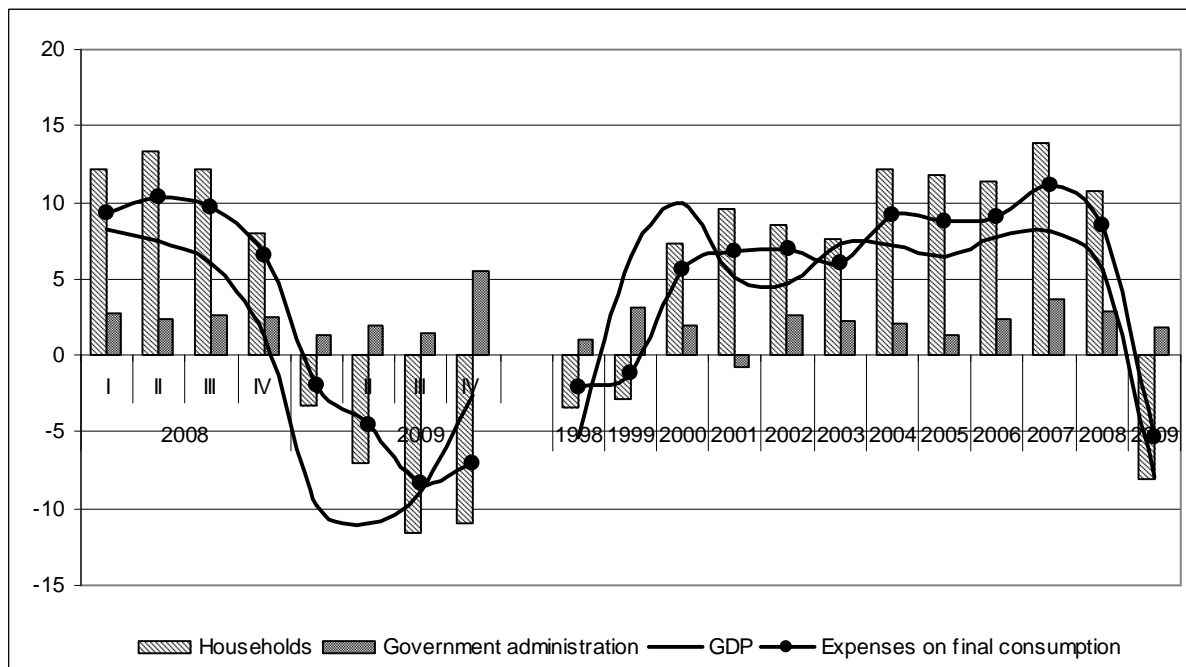
	2008					2009				
	year	quarter				year	quarter			
		I	II	III	IV		I	II	III	IV
GDP	100	100	100	100	100	100	100	100	100	100
Expenditure on final consumption	65.5	67.5	64.2	61.5	68.8	74.7	81.5	78.0	70.4	71.0
Households	47.7	48.3	46.8	45.8	51.6	53.9	57.0	55.8	50.9	52.6
Government administration	17.3	18.6	16.9	15.3	16.7	20.3	23.7	21.6	19.0	17.8
Gross capital formation	25.4	20.0	25.5	29.0	26.5	18.0	12.4	14.9	21.8	21.3
Gross fixed capital formation	22.2	16.2	20.8	21.7	27.8	20.2	16.5	19.8	19.6	24.1
Change in stocks	3.2	3.8	4.7	7.3	-1.3	-2.2	-4.1	-4.9	2.2	-2.8
Net exports	9.1	12.5	10.3	9.5	4.7	7.3	6.1	7.1	7.8	8.0

Source: Federal service of state statistics.

Trend for outrunning upturn of expenses on final consumption was effective over recent seven years and was maintained by constant advance of household income and the revenues of the economy. Over the period of 2001-2008 amid rally in household final consumption by 1.89-fold, real household income went up by 2.23-fold, real wages and salaries – by 2.85-fold, and the real volume of pensions – by 2.22-fold. Strong upsurge in final consumption represented a principal factor for sustainable growth of the Russian economy.

The global crisis of 2008-2009 painfully affected the living standard of the population. It was characterized by a deeper fall in the living standard against the preceding period than the 1998 crisis. Amidst preserving growth rates of real household income at 1.9% against 2008, the final consumption contracted by 5.4%, of which household consumption – by 8.9%. It is worth noting that dynamics of household consumption was significantly affected by the reduction in real wages and salaries to stand at 2.8% against 2008, and upturn of nominal wages and salaries by 8.5% which was minimal since 1998. In this situation issues of complying with government social guarantees and commitments became paramount. In order to maintain the living standard along with social stability, government expenses went up in 2009 to 20.3% of GDP, and by 3.0 percentage points exceeded the level of a year ago. Dynamics of social support re-

mained in the positive territory over the entire year (*Fig. 4*). In 2009 average volume of pensions went up by 22.6%, and in real terms – by 10.2%



Source: Federal service of state statistics.

Fig. 4. Dynamics of Expenditure on Final Consumption in GDP across Components in 1998–2009, quarter-on-quarter 2008–2009, in % to corresponding period of the preceding year

3.1.3. Changes in the Structure of GDP Generation across Income Sources

Support of domestic market in 2009 was based on the redistribution of income from enterprises to the population. The share of labor remuneration in GDP went up to 51.9% and by 4.6 percentage points exceeded the level of 2008. However, in real terms wages and salaries in the 1Q of 2009 fell by 0.8%, in the 2Q – by 3.9%, and in the 3Q – by 5.2%. In the 4Q of 2009 real wages and salaries went up by 10.2% against previous quarter current year, as a result downturn to similar period of a year ago constituted 1.0%.

Comparison of the movements of employment, labor remuneration and GDP shows that outrunning growth of wages and salaries against labor productivity have increased the burden on the economy and negatively affected economic results.

In the wake of the production slump which took place in the 1Q of 2009 the share of net taxes on production and exports in GDP constituted 16.7%, and gross revenues and mixed income – 31.4% against correspondingly 19.9% and 32.8% in 2008 (*Table 5*).

Table 5

**Structure of GDP Generation across Sources of Revenues in 2008–2009,
in % to Total, in Current Prices**

	2008					2009				
	Year	quarter				year	quarter			
		I	II	III	IV		I	II	III	IV
GDP	100	100	100	100	100	100	100	100	100	100
Compensation of employees (Including hidden compensation and mixed income)	47.3	48.3	46.8	42.3	45.9	51.9	56.2	53.7	47.2	51.8
Net taxes on production and imports	19.9	20.5	21.2	20.2	19.1	16.7	17.8	18.5	19.7	11.6
Gross revenues of the economy and gross mixed income	32.8	31.2	32.0	37.5	35.0	31.4	26.0	27.8	33.1	37.6

Source: Federal service of state statistics.

Behavior of financial results posted by enterprises and organizations was determined, on the one hand, by the fall of output practically in all sectors, and on the other, by price rise of producers mainly in natural resources sector and increase in tariffs by natural monopolies. As a result of differently directed outcome of these factors, structural changes in redistribution of income across types of activity have strengthened. Profitability of sold goods, products and works at the end of January-September 2009 constituted 11.2% and fell by 4.6 percentage points in comparison with the same period of the preceding year.

Table 6

**Profitability of Sold Goods, Products, Works, Services and Return on Assets
of Organizations across Types of Economic Activity in First Half of 2008 и 2009, in %**

	Profitability of soled goods, products, works and services		Return on assets		Reference		
					January-September 2009 to January-September 2008	September 2009 to December 2008	
	2008	2009	2008	2009	Rates of financial result	Indices of physical volume	Price indices
Total	15.8	11.2	6.8	3.8	64.1	88.2	
Of which:	15.0	11.4	4.5	2.9	73.3	99.2	96.3
agriculture, hunting and forestry							
Fisheries, fish-farming	10.7	25.9	4.8	13.0	290.0	109.5	
Natural resources	36.2	31.3	14.6	8.5	72.2	97.0	153.5
Manufacturing industries	20.6	12.3	12.1	3.9	35.5	82.5	106.5
Production and distribution of electricity, gas and water	3.6	7.3	0.6	2.9	320	93.1	118.0
Construction	5.6	5.0	2.6	1.5	58.6	81.6	99.8
Wholesale and retail sectors; maintenance of transport means, motorcycles, household appliances, and personal items	11.3	7.0	7.0	3.6	56.8	94.7	108.1
Transportation and communications	16.4	15.8	5.0	3.9	99.8		110

Source: Federal service of state statistics.

Production slump and other crisis developments turned out to be ambiguous. Correspondingly development processes are evolving unevenly and have their own features.

Production and distribution of electricity, gas and water remained the most profitable economic activity in January-September 2009. This is due to an upsurge of regulated tariffs by 21.1% from 1January 2009 and reduction in production costs. At the same time, it should be noted that significant upturn of tariffs and free prices on electricity positively affected profitability of production and distribution of electricity, gas and water, and made recession in other sectors especially in processing sector more acute.

Domestic production reacted to a fall in investment activity and contraction of domestic and foreign demand by reduction in producers' prices in the 4Q 2008 by 20.9% compared with the 3Q. Amid slump in world prices on energy and mineral resources, producers' prices in natural resources sector in the 3Q 2008 fell by 5.4% in comparison with preceding quarter, and in the 4Q – by 44.9%. Drastic changes in the level and structure of prices was accompanied by a decline in economic profitability which resulted in negative revision of corporate investment programs, and in stagnation of production and layoffs. However, already in the end of the 1Q 2009 industrial goods producers' price index constituted 104.4% with respect to the last quarter a year ago, when the price take-off in mineral sector stood at 8.5%, in processing industry – at 1.3%, and in production and distribution of electricity, gas and water – at 118.0%. Price hike on raw materials and energy was followed by an increase in prices in manufacturing sector by 6.5%. However, even under such restrained price policy domestic producers have not managed to strengthen their positions on the domestic market.

In the 4Q 2009 the price fall could be observed in industry which represented one the reasons for alleviating the recession consequences by the end of the year.

Deterioration of financial outcome recorded in manufacturing industry was first of all determined by deep contraction in domestic and foreign demand. Mostly the crisis affected manufacturing enterprises which find themselves in a financial predicament, especially those which were oriented to domestic demand. At the same time, price fluctuations affected less the financial outcome of these enterprises than contraction of production. Among factors which determined vulnerability of the manufacturing industry in the wake of the crisis, one should note high level of debt obligations as well as general inefficiency of production.

Among sectors engaged in production of consumer goods, food processing sector was in the best shape, including production of beverages and tobacco. Reduction in the output volumes at the peak of the crisis turned out to be moderate – within 4% and starting from March the trend became positive. In the 2Q 2009 food processing industry balanced result was by 34% higher than for the corresponding period a year ago. Positive upsurge of revenues continued in the 3Q 2009. Due to comparably high level of competitiveness of domestic foodstuffs in price and quality amid devaluation of the exchange rate of the ruble one could observe import substitution in the food processing sector. In spite of the fall in revenues in the mineral extraction sector at the end of January-September 2007 by 27.8% against similar period of the previous year, income was obtained first of all due to stabilization of the world energy market, price growth on energy resources, decrease in export duties for the oil sector, as well as preservation of high export prices for natural gas.

In construction sector contraction in the investment demand and unavailability of credits – under strong dependence of this sector on bank loans – has resulted to a notable reduction in the construction volumes. As a result, balanced revenues amounted to 58.6% of corresponding amount for January-September 2008.

Reduction in commercial freight traffic for January-September by 24.0% to the corresponding period of a year ago resulted in an increase of financial result in transportation by 4.6% due to rise of tariffs on cargo carriage by 10.0%.

In the structure of working population, 92% are employed that is why the issues of labor remuneration and employment seems to remain a big issue. Amidst the reduction of the real wages and salaries and real income of households in 2009 high numbers of unemployment remained. In 2009 in comparison with the same period a year ago the number of employed in the

economy plummeted by 1.7 mln people to stand at 69.4 mln, and overall number of jobless (according to WLO methodology) reached 6.0 mln or 8.4% of economically active population. The number of officially jobless claims registered by the state employment service stood at 2.1 mln, and the level of registered unemployment – 2.8% against 1.8% in 2008 (*Table 7*).

The situation was aggravated by an increase to 1.6 mln of employed who have been transferred to part-time employment and those who have been sent to forced leave and work stoppages. Moreover, negative impact of such factors as limitation of professional mobility, reduction in secondary and informal employment was especially true in monosectoral cities. It is worth noting that the situation became worse in the small business sector. Small business employed 6.2 mln in 2008 which constituted 11.4% of an average annual number of employed as a whole in Russian economy. Against the background of sharp changes which took place in the development of Russian economy in the wake of the global financial crisis and its extension to include the real sector in the 4Q 2008, the number of workplaces at small enterprises (excluding micro enterprises) shrank.

Tension coefficient (number of jobless claims registered by the state employment service per a vacancy) compared with December 2008 surged from 1.9 to 3.2. Requirement in employees reported by the employers to the state employment service went down by the end of December 2009 against similar month a year ago by 170 thousand, the number of vacancies by the end of 2009 nearly halved to stand at 223.3 thousand.

Table 7

Main Indices of Labor Market in 2008–2009

	2008	Quarter				2009	Quarter			
		I	II	III	IV		I	II	III	IV
Number of employed in economy (by the end of the month), mln	70.9	69.9	71.4	71.9	70.4	69.4	68.2	69.4	70.4	69.5
Number of unemployed (average per month), thousand	4.8	5.1	4.3	4.5	5.4	6.3	6.8	6.5	6.0	6.0
Unemployment level, in % to the economically active population	6.4	6.7	5.6	5.9	7.1	8.4	9.1	8.6	7.8	8.0
Number of jobless claims registered by the state employment service, thousand	1.4	1.6	1.4	1.3	1.4	2.1	2.0	2.2	2.1	2.1
Level of registered unemployment, in % to economically active population	1.8	2.1	1.9	1.7	1.8	2.8	2.6	2.8	2.7	2.7
Average monthly payable salary in organizations, Rb	17290	15424	16962	17556	18966	18785	17441	18419	18673	20626
Wage arrears (mln Rb, on average quarterly)	3337.7	2857.3	2756.3	2801.7	4935.3	6662.4	6575.3	8486.7	6409.7	5178.0
		in % to the corresponding period of a year ago								
Number of employed in economy (by end of month)	100.6	100.8	101.2	100.7	99.6	97.8	97.7	97.1	97.9	98.7
Number of unemployed (on average per month)	104.4	96.5	94.2	105.6	123.7	131.1	134.8	152.1	132.2	112.0
Number of jobless claims registered by the state employment service	89.7	89.7	89.3	88.9	91.1	148.0	126.5	157.4	163.0	153.2
Average monthly payable salary in organizations	125.9	128.0	129.2	129.0	119.5	108.5	112.8	108.0	105.7	108.1
Average monthly payable salary	110.3	113.4	112.5	112.2	105.0	97.2	99.2	96.1	94.8	99.0
Wage arrears	77.5	62.0	60.7	65.8	129.2	199.6	230.1	307.9	229.8	104.9

Source: Federal service of state statistics.

Factors of Economic Growth of GDP and Value Added in 2008–2009

Below we present the results of decomposition of the output growth indicator (GDP) in 2008-2009 obtained in accordance with methodology described in IET publication (Factors

of Economic Growth. Academic papers, #70. Moscow, IET, 2003. www.iet.ru). The basis of decomposition is the resolution of economic growth into extensive and intensive components which allow estimating the quality of growth and forecast further trends of economic growth. Presented results specify transformation of the economic growth structure and permit separating paramount factors which conditioned changes in the output growth rates.

Last two years GDP dynamics is characterized by a sharp slowdown in growth rates turned to a more significant contraction than in 1998 (-7.9% by the end of 2009). Quarterly GDP during entire 2008 was marked by more than sevenfold slump in growth rates: if in the 1Q GDP growth against the same period of a year ago stood at 8.7%, then in the 4Q – only 1.2%. In 2009 for the first time in 10 years real GDP growth rates turned to be negative, constituting quarter-on-quarter correspondingly: -9.8% in the 1Q, -10.9% - in the 2Q, -8.9% in the 3Q, and -1.7% in the 4Q 2009.

Except the 4Q 2008 where positive rates of GDP growth were observed amid contraction in the labor and capital costs, changes in GDP volume and fixed assets costs are marked by unidirectional dynamics: upsurge in output was followed by the increment of principal extensive factors (1-3Q 2008), and contraction of output – by their reduction (1-4Q 2009).

According to decomposition findings (Table 8) in 2008 fixed capital costs determined 56.9% of GDP growth, in 2009 their input went down to 41.8%. At the same time, changes in the output growth rates were accompanied by transformations which took place in their structure which revealed themselves most vividly in 2009. These transformations can mainly be attributed to the distribution of input in the GDP growth rates between principal factors – labor and capital. Over last ten years output growth at the expense of costs of main factors to a greater extent was determined by the change in the volume of capital attracted to production - on average by 32%, meanwhile contribution of labor costs constituted only about 7%. In 2009, on the contrary, contraction of actually worked hours determines 30% of the output growth rates which threefold outpaces capital costs in the GDP growth rates.

According to decomposition of quarterly indices (Table 9) in 2008-2009 GDP growth rates on average at 16% are conditioned by the changes in labor costs, at that contribution of this component went up (from 4.7% in the 1Q 2008 to about 100% in the 4Q 2009). More significant contribution in GDP growth rates are determined by the changes in the volume of industrial capital, which constitute on average 21%, however as against labor costs contribution of capital costs contracted from 50.1% in the 1Q 2008 to 24.0% in the 3Q 2009 (in the 4Q 2009 contribution of capital costs was negative). As a result, where in January-September 2008 contribution of capital outpaced labor input by about ninefold, than in the first half year 2009 contribution of capital in GDP growth rates was about one third of the labor contribution and matched it only in the 3Q 2009.

The year 2009 as distinct from preceding years demonstrates changes in the GDP growth structure which are conditioned by the reduction in the capital costs which are simultaneously followed by an increase in labor costs. These structural modifications express the impact of crisis developments in the economy on the behavioral strategies of producers who in the process of adapting to the new economic conditions apply first of all a more flexible tool – control over the volume of labor costs.

Table 8

Decomposition of the Annual Rates of Growth of GDP and Gross Value Added of Industrial Production in 2005–2009¹

	GDP	Factor costs	Including						Combined Factor productivity
			Labor	Of which:		Capital	Of which:		
				Number of employed	Hours worked*		Volume of fixed capital*	Capacity utilization***	
Rates of growth									
2005	6.40	2.05	0.03	0.26	-0.23	2.02	1.05	0.98	4.35
2006	7.70	4.10	0.43	0.25	0.18	3.67	1.34	2.33	3.60
2007	8.10	3.60	0.65	0.57	0.08	2.95	1.69	1.25	4.50
2008	5.60	3.19	0.15	0.31	-0.16	3.04	1.95	1.10	2.41
2009	-7.90	-3.31	-2.37	-1.09	-1.28 ²	-0.94	1.58 ³	-2.52 ⁴	-4.59
in % to the GDP growth rates									
2005	100	32.07	0.45	4.07	-3.62	31.63	16.35	15.27	67.93
2006	100	53.29	5.60	3.28	2.32	47.68	17.40	30.29	46.71
2007	100	44.45	8.07	7.05	1.02	36.38	20.90	15.48	55.55
2008	100	56.92	2.61	5.49	-2.88	54.32	34.77	19.55	43.08
2009	100	41.84	30.00	13.86	16.14	11.84	-20.05	31.89	58.16

* per a worker.

** For 2005–2008 on the data of physical volume of fixed capital.

*** Estimate of fluctuation in capacity utilization in the economy as a whole is constructed on the data of the electricity consumption volume

Negative trends in the number of employed (stock of labor) in the wake of the financial crisis were observed since the 4Q 2008 which was marked by the contraction in the number of employed at 0.6% and strengthened in 2009 to stand at - 2.4% in the 1Q, - 2.8% in the 2Q, - 2.1% in the 3Q and - 1.4% in the 4Q. Negative trend in the number of employed was mainly conditioned by the reduction in the share of working population in total population and the share of economically active population in the number of able-bodied population. In the same 4Q 2008 sharp fall in working time per an employed was observed.

Analysis of the changes in the labor costs structure following crisis developments in the economy represents the fact that manipulation of the length of a working-day became the principal tool for the labor market adaptation to the changes taking place in the labor market. Changes in the number of employed represented the paramount component of labor costs which determined their contribution to GDP growth rates up to mid-2008. In the 3Q 2008 growth rates of the stock of labor matched its utilization rates. In the 4Q contribution of hours worked to the GDP growth rates exceed nearly threefold contribution conditioned by the changes in the number of employed. In 2009 average quarterly reduction in the hours

¹ Disagreement with previously published findings is due to the change in the data presented by the Federal service of state statistics (Rosstat).

² Annual estimation is constructed on the data for January-September 2009.

³ Preliminary data – growth evaluation of the physical volume of fixed assets in 2009 which is constructed on the assumption of constant coefficient of capital consumption and constant share of investment directed to their renewal.

⁴ Preliminary data – evaluation of capacity utilization is constructed on an assumption of constant share of electricity consumption in production volume.

worked per a worker exceed average reduction in the number of employed ensuring on average 28% of GDP growth.

Table 9

Structure of Rate of Growth of Quarterly GDP (Against the same period a year ago)

	I quarter 2008	II quarter 2008	III quar- ter 2008	IV quar- ter 2008	I quarter 2009	II quarter 2009	III quar- ter 2009	IV quar- ter 2009
Growth rates								
GDP	8.70	7.50	6.00	1.20	-9.80	-10.90	-8.90	-1.70
I. Factor costs	4.76	3.25	4.95	-0.61	-4.93	-4.24	-4.30	-0.38
I.1 Labor	0.40	0.36	0.58	-1.08	-3.90	-3.02	-2.16	-1.78
Employment	0.35	0.53	0.30	-0.26	-1.37	-1.50	-1.12	-0.76
Hours worked	0.06	-0.17	0.28	-0.82	-2.53	-1.52	-1.04	-1.02 ¹
I.2 Capital	4.36	2.89	4.37	0.47	-1.03	-1.22	-2.14	1.40
Fixed costs	1.56	1.69	1.91	1.82	1.44	1.43	1.32	1.20
Utilization of produc- tion capacity	2.80	1.20	2.46	-1.35	-2.47	-2.65	-3.45	0.20
II. Total factor produc- tivity	3.94	4.25	1.05	1.81	-4.87	-6.66	-4.60	-1.32
In % of the GDP growth rates								
GDP	100	100	100	100	100	100	100	100
I. Factor costs	54.8	43.3	82.5	-50.9	50.3	38.9	48.3	22.3
I.1 Labor	4.7	4.8	9.6	-90.1	39.8	27.7	24.3	105.0
Employment	4.0	7.1	4.9	-21.6	14.0	13.8	12.6	44.9
Hours worked	0.7	-2.3	4.7	-68.5	25.8	13.9	11.7	60.1
I.2 Capital	50.1	38.5	72.9	39.1	10.6	11.2	24.0	-82.6
Fixed assets	18.0	22.5	31.9	151.5	-14.7	-13.1	-14.8	-70.9
Level of production capacity utilization	32.1	16.0	41.0	-112.4	25.2	24.3	38.8	-11.8
II. Total factor produc- tivity	45.2	56.7	17.5	150.9	49.7	61.1	51.7	77.7

As in the case of labor costs, crisis developments in the economy led to capital cost trend to become negative which happened not in the end of 2008 but in the 1Q 2009. In 2008-2009 main factor which determined changes in capital costs and also their trend a year later was volatility of the utilization of production capacity. Capital costs utilization growth demonstrates stable decrease up to the 4Q 2009, so from the end of 2008 they became negative. On average decline in the growth rates of this component amounts to 2.1 percentage points quarter-on-quarter (in accordance with the linear trend at 2.3 percentage points²). At the same time, in the last quarter 2009 utilization of production capacity levels posts insignificant upturn.

Capital stock represents the only factor which has a negative contribution to GDP growth rates. In other words, it is the only indicator which is amid output contraction posts increment. It is worth noting that the rates of upsurge of fixed capital are falling. In accordance with estimation methodology³ dynamics of capital stock is determined by the changes in the

¹ Estimate for the 4Q are constructed on the data for January-September 2009

² Estimates of reduction in growth rates according to the linear trend are considered with an aim of reducing dependence of estimation results from the choice of initial and final year of the period under consideration.

³ In the absence of quarterly statistics, estimation of fixed capital growth is based on an assumption of constant coefficient of capital consumption and constant investments directed on their renewal. It should be noted that

investment volume in fixed capital which demonstrates negative trend from the 4Q 2008. As a result, fall in the volume of funds directed to the renewal of fixed capital taking into account the level of their depreciation have resulted in quarter-on-quarter decline in capital stock advance at 0.23 percentage points.

Over last two years dynamics of the combined factor productivity is marked by a sharp reduction in growth rates. Productivity growth rates (Table 8) in 2008 stood at 2.4% which is half the average level of the indicator in 2005-2007, and in 2009 for the first time since 1998 there is a decline in productivity rates. At the same time, the rate of decline outpaces corresponding value for 1998. In 2008-2009 combined factor productivity is the only reason for the change in GDP growth rates.

When analyzing quarter-on-quarter dynamics (Table 9), changes in combined factor productivity represent dominant factor which determines on average 64% of the output rates of growth. As in the majority of components under consideration, combined factor productivity demonstrates reduction in the growth rates in 2008 and transition to negative territory in 2009, reaching its minimum level in the 2Q 2009 which amounted to -6.7% and subsequent contraction to the level of -1.3% in the 4Q 2009.

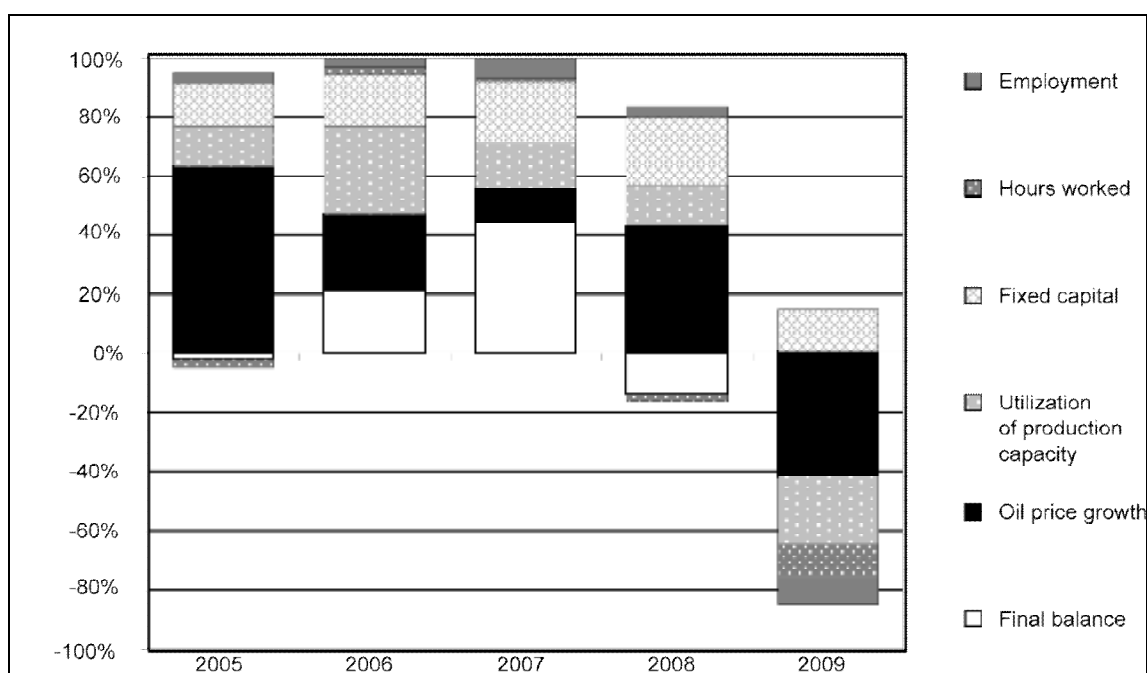


Fig. 5. Growth Structure of GDP in 2005–2009

Obtained estimate of combined factor productivity should not be viewed as purely “technological” component which marks adjustment in factor productivity. It reflects the impact of indices which are not accounted in the estimation of principal costs as well as shifts due to the method of estimation. For example, the use of cost indicators of output and capital may shift “physical” estimation of combined factor productivity due to unevenness of GDP prices

obtained estimation may be shifted due to the fact that it does not take into account time lag between the moment when investment is received and the moment of their usage.

dynamics and fixed capital.¹ At the same time, precisely this unevenness mark Russian economic system which is determined by high oil price volatility. That is why, in short-term period market factors may exert more important influence on growth compared to technological ones.

In accordance with obtained findings² in 2008-2009 oil price fluctuations determine the lion's share of rates of growth of combined factor productivity and GDP. On average in the period under consideration changes in the price factor determined about 60% of the output growth rates, meanwhile technological productivity ("final balance") – about -10%. At the same time, as a result of taking pricing environment on the world raw material market as a separate factor, changes in the rates of growth of "technological" component differ from combined factor productivity behavior. Rates of growth of "balance" turn to negative territory from 2008, meanwhile in 2009 technological productivity practically did not change.

Thus, changes in the dynamics of rates of growth of GDP observed in 2008-2009 are accompanied by transformation in the structure of growth rates which is marked by a reduction in the contribution of capital costs with simultaneous increase of contribution of labor costs amid combined factor productivity preserves its dominant role. At the same time, changes in the growth rates and labor costs, and capital costs are mainly determined by fluctuations in the level of their utilization (worked hours and intensity of utilization of production capacity).

Growth rates of the majority of components (except fixed costs) demonstrate same dynamics: decline in growth rates in 2008, transition to negative territory by the end of 2008 - beginning of 2009 and reduction in the negative trend by the end of 2009.

On average in 2008-2009 contribution of productivity in GDP growth constitutes about 50% without oil prices and -10% after the exclusion of market movement in the world raw materials market. At the same time, it should be noted that in 2009 estimates of technological productivity demonstrate near zero rates of growth.³

3.1.4. Dynamics and Structure of Production across Types of Economic Activity

Over the period of 2008-2009 Russian economy behavior can be divided into several definite periods. In the first half of 2008 economic situation was determined by several factors and trends of economic growth which were set up during 2006-2007. From the second half of the year developments occurring on the global financial markets and slump in prices and demand observed on the world raw materials market significantly affected the economy. Up to mid-

¹ "Cost" estimation of productivity agrees with "Physical", in the event the economy is in long-period equilibrium and perfect competition. In other words, where all possible exogenous shocks are accounted in the current equilibrium of the system.

² Separation in the combined factor productivity market component and execution of subsequent decomposition of output growth rates is based on the availability of statistically important interconnection between combined factor productivity growth rates and world oil prices growth rates, which is estimated by regression on annual data for the period from 1993 through 2008. Obtained as a result "final balance" cleared from the effect of price fluctuations on the world raw materials market represent a more reasonable feature of technological productivity, i.e. intensive component of output growth.

³ One should not consider this fact as proof of positive changes in technological characteristics of enterprises performance. In part this result may be attributed to applied methodology for balance division. Furthermore, in the last half year under consideration estimations of combined factor productivity may be shifted due to exogenous shocks determined by world economic situation created by the global financial crisis.

2009 economic situation was determined by inertia effect and factors which were set up during the period of acute stage of the global financial crisis of 2008. However, starting with the second half of 2009 economic situation rebounded on the back of restorative external demand and government stimulus plan. When comparing 2008 indices with those of 2009 we should take into consideration both qualitative features of economic performance and quantitative features as well (base effect).

Table 10

Dynamics of GDP Physical Volume and Gross Added Value across Types of Economic Activity in 2008-2009, in % to corresponding period a year before

	2008	Quarter				2009	Quarter		
		I	II	III	IV		I	II	III
Gross added value	105.6	108.7	107.5	106.0	101.2	92.1	90.2	89.1	91.1
Of which:	107.4	104.3	105.6	109.5	110.1	98.3	97.6	98.2	98.1
agriculture, hunting and forestry									
Fishing, fish farming	94.4	105.1	111.8	89.8	86.8	98.4	107.8	105.6	100.4
Extraction of mineral resources	100.1	101.7	102.2	101.7	96.1	98.1	97.8	94.9	97.7
Manufacturing industries	100.2	106.6	105.1	104.7	89.9	86.1	76.5	81.3	85.4
Production and distribution of electricity, gas and water	100.9	104.1	105.1	104.0	92.9	94.0	94.7	93.3	90.1
Construction	111.9	131.3	118.1	109.5	104.1	83.6	79.1	79.5	80.3
Wholesale and retail sectors	109.5	114.2	109.7	105.5	105.4	91.7	95.1	88.7	91.0
Hotels and restaurants	110.7	112.9	110.1	110.0	108.7	84.6	87.8	84.8	80.6
Transportation and communication	106.3	110.6	109.5	106.2	103.6	97.7	92.6	89.8	95.1
Financial activity	104.0	108.6	107.8	106.8	103.7	94.3	100.3	94.6	94.2
Transactions with real estate	113.6	108.9	111.2	111.0	111.6	94.7	92.2	94.7	92.8
Government administration and defense, compulsory social insurance	103.0	104.0	103.2	103.5	103.6	103.2	102.4	103.2	103.3
Education	100.0	101.3	101.0	100.5	100.0	98.7	99.4	99.2	99.5
Public health and provision of social services	100.0	100.5	100.7	100.7	100.7	100.6	98.5	98.5	98.6
Delivery of other utility, social and personal services	97.8	105.2	105.7	106.8	99.5	81.7	91.3	87.5	68.5

Source: Federal service of state statistics.

In 2008 macroeconomic situation was marked by gradual negative development trend recorded practically across all sectors of the economy. Contraction of the investment activity from the 3Q 2008 was followed by a downturn in the construction sector which lost its first place to retail sector. Economic situation also conditioned decline in demand for infrastructure sector services.

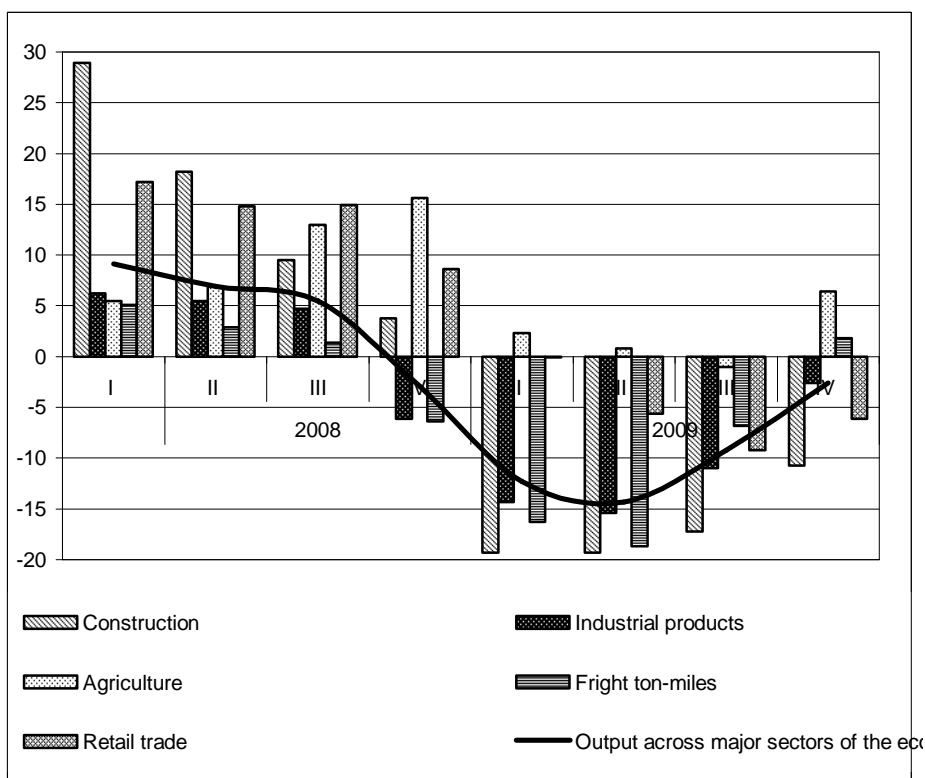
Largest production slump across major sectors of the economy took place in the first half of 2009 when the downturn constituted 13.6%. By the year end on the whole, the slump amounted to 9.4%. Downward trend was observed practically across all types of economic activity. Industrial slump for 2009 against a year ago amounted to 10.8%. Absolute reduction in output volumes predetermined contraction in demand for the services provided by the natural monopolies. Freight ton-miles volume shrank by 10.2%, of which by railway transport – by 11.9%, production and distribution of electricity, gas and water – by 4.8%. And such sector as communications which posted over recent years stable high behavior, although remained in the

positive territory, but lowed notably from 4Q 2008: in 2009 increment in communications services soot at 2.7% against 11.9% a year earlier.

Under the effect of downward trend of investments in the fixed capital by 17.0% construction sector posted reduction at 16.0% vis-à-vis 2008.

In 2009 one of the paramount problems was emergence of downward trend in consumption demand on the domestic market effective from February 2009. For 2009 retail sector turnover dipped by 5.5%, of which foodstuffs – by 2.5% and non-food products – by 8.3%. The volume of paid services rendered to the population fell to 95.7% of the 2008 level.

Consumer inflation from the onset of the current year amounted to 8.8% against 13.3% in 2008. At the same time, price hike on foodstuffs was 106.1% against 108.0%. However, against the background of slowdown of inflation the behavior of the population on the consumer market was marked as very cautious. Low effective demand of the population coupled with internal constraints in activity of commercial enterprises conditioned by insufficient financial resources, high interest rates on credits, rental value and tax burden negatively affected the movement of retail trade and have resulted in growing recession in the second half of 2009 regarding same period of the preceding year.



Source: Federal service of state statistics.

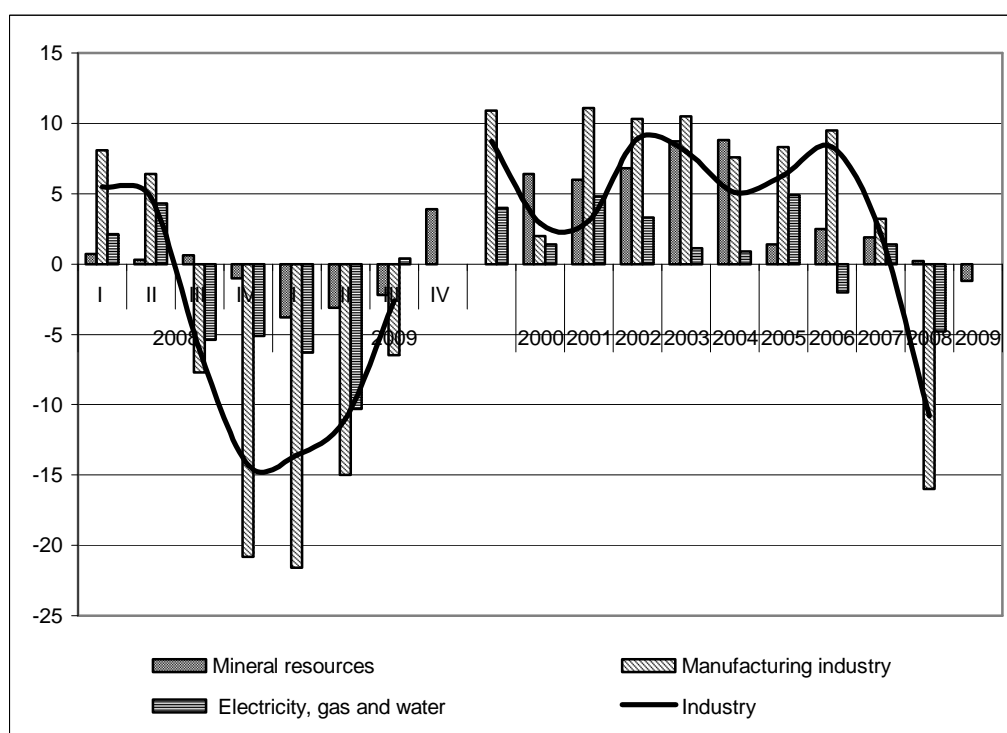
Fig. 6. Change in Output Movement across Major Sectors of Economy in 2008–2009, in % to the same period of the preceding year

In industry production slowdown rates in 2008 primarily were observed in the export oriented sectors and later expanded to manufacturing industries which recently were marked by

high rates of growth. In the 4Q 2008 for the first time since 1998 negative trend was recorded in industry.

From autumn 2008 situation in the mining sector deteriorated due to the fall of demand and contraction of prices on raw materials and products of metallurgical sector on the world market which was aggravated by the contraction in domestic demand under the effect of production slump in machine-building industry and construction complex. In the 4Q 2008 downswing in extraction of fuel and energy raw materials constituted 1.2%, in the extraction of other types of natural resources – 2.4%. Reaction of mining and extracting industries to the movements in the global and domestic markets was less important in comparison with the reaction of the manufacturing industries. The fall in manufacturing industry by 7.5% against the 4Q 2007 exceptionally negatively affected domestic product market as well as labor and capital markets.

Highest fall in the industrial production took place in the first half of 2009, when the slump constituted 14.8% and in manufacturing industries – 21.3%. From the onset of the second half of the year, the situation rebounded on the back of restorative external demand and government stimulus plan, and by the end of the year on the whole, the industrial production shrank by 10.8% of the level a year ago including in extracting industries – by 1.2%, and in manufacturing industries – by 16.0% (Fig. 7).



Source: Federal service of state statistics.

Fig. 7. Movement in Production Growth Rates across Types of Economic Activity in Industry 2000–2009, quarter-on-quarter of 2008–2009, in % to same period of the preceding year

Industrial production index across type of economic activity “Production and distribution of electricity, gas and water” in 2009 vis-à-vis the same period a year ago constituted 95.21%. 992 bn kWh of electricity were produced in 2009, which stands at 94.3% of the 2008 level.

Low levels of electricity production were conditioned both by decline in domestic demand and reduction in net-power flow to Finland, the Baltic states and CIS (Trans-Caucasian region and Belarus).

The movement of manufacturing industries is significantly differentiated across types of economic activity. At the same time, ratio between production rates of capital and consumer goods exerts the highest effect (*Table 11*).

Table 11

**Production Rates Movement across Types of Activity in Manufacturing Industries
in 2007–2008, in % to corresponding period of the preceding year**

	2008	Quarter				2009	Quarter			
		I	II	III	IV		I	II	III	IV
Manufacturing industries	103.2	110.7	108.1	106.4	92.3	84.0	79.2	78.4	85.0	93.5
Food processing, including beverages and tobacco	101.1	106.4	103.9	101.7	93.7	99.5	96.7	97.4	99.9	104.3
Textiles and garment manufacture	95.5	102.6	101.8	97.9	83.8	84.2	78.8	76.7	82.0	99.8
Leather manufacture, products of leather and footwear	101.7	106.6	108.5	105.1	92.9	98.0	83.0	96.5	103.8	109.6
Timber processing and woodwork	101.4	115.6	110.9	102.4	83.6	87.5	70.8	75.4	84.4	99.0
Cellulose and paper, publishing and printing activity	100.8	107.8	106.0	101.2	88.9	99.4	82.0	85.3	86.0	98.2
Coke and petroleum products production	102.7	105.0	101.6	102.9	101.2	94.6	96.3	99.3	100.5	101.7
Chemical production	95.8	103.7	103.1	101.8	78.5	87.8	77.6	88.3	95.4	117.6
Rubber and plastic goods	112.5	130.4	116.5	119.0	101.0	85.4	82.7	84.6	89.1	94.4
Production of other non-metallic mineral goods	99.1	108.6	109.1	100.2	86.4	75.2	67.8	69.1	76.3	87.1
Metallurgy and production of finished metallurgical goods	99.8	108.6	101.1	100.5	94.7	86.1	72.3	75.7	88.0	108.7
Machines and equipment	104.0	116.4	105.4	111.6	88.0	71.6	74.3	60.1	74.4	79.7
Electrical equipment, electronic and optical equipment	92.1	93.3	91.3	98.9	87.0	68.4	56.6	63.1	72.1	81.6
Means of transport and transport equipment	109.5	114.4	119.1	116.4	91.3	62.0	64.5	58.1	53.4	71.9
Other	104.6	118.6	116.2	106.6	106.1	82.2	79.3	70.9	86.6	91.2

Source: Federal service of state statistics.

Amidst rather significant fluctuations in rates of growth across type of activity in manufacturing industries, slump in output in machine-building sector was a predominant factor which negatively impacted the level of business activity in connected industries engaged in production of constructional materials and other types of intermediary goods. Setback in production recorded in machine-building sector starting from the 4Q 2008 assumed acute forms and during the entire 2009 was marked by a downward trend significantly lower the average level across manufacturing industries. Compared with 2008 production of machines and equipment constituted 71.6% of the same level a year ago, production of electrical equipment, electronic and optical equipment – 68.4% and production of means of transport and transport equipment – 62.0%

Scaling back production of means of transport and transport equipment in 2009 was observed across all goods nomenclature. Fall of demand for railway services, reduction in the volume of purchases and arrears for orders payment on the part of OAO “Russian Railway System” continue negatively affecting production volumes of railway equipment.

Production of automobiles in 2009 against the same period 2008 constituted 40.6% and trucks – 35.7% of 2008 level.

Government stimulus measures directed to support domestic automobile industry including those aimed at stimulating demand were of palliative nature and have not resulted in reducing crisis developments in domestic automobile industry.

Over recent years imports continued affecting the behavior and development of machine-building industry. It was due to non-competitiveness of many types of machine and equipment vis-à-vis imported analogues judging by “price/quality” criterion, as well as lack of capacities for production of modern types of equipment significantly limited the market for domestic machine-building industry. Impact of imports considerably differs across different sectors of the economy and products markets. On the investment machine-building market surge of imports was a driving force behind the implementation of the investment projects, modernization of production and implementation of technological innovations. At the same time, escalating competition with imports was observed, in particular, in such machine-building sectors as, machine-tool manufacture, agricultural machinery industry, road-building machinery, automobile industry. These industries remained with low investment activity, high consumption of fixed capital, backward technologies and they were very promising for the implementation of projects of industrial assembly and transfer of activities of foreign companies on Russian soil. Out-running growth of output volumes recorded on the enterprises with foreign capital changes conditions for competition and provided incentives for conventional sectors. However, in the wake of the crisis these sectors turned out to be most vulnerable due to the fact that over prolonged period of time nothing has been done regarding the development of production of inventory materials by the domestic enterprises. With account of wide network in machine-building industry and, in particular, in automobile industry contraction of output impacted associated sectors, infrastructure and painfully reflected on the employment level.

In the sector of intermediary demand goods suffered most in construction materials production (75.2% against 2008 level), chemicals (87.1%), rubber and plastics (87.7%, timber and woodwork products (82.3%) and in cellulose and paper (87.5%.

Domestic market demand for metal was ensured by the development of metal-intensive sectors: machine-building, construction, defense and fuel and energy complex. Metallurgical index and production of finished metal products in 2009 stood at 86.1% to the level of 2008, including metallurgical production – 86.5% and production of finished metal goods – 83.2%. With account of output of principal consumers, consumption of the domestic market of rolled metal products slumped to 62.3% against a year ago.

In the sector of consumer goods in 2009 the index of textile and garment manufacture constituted 84.2% against 2008, leather, leather goods and hoot wear – 98.0% and foodstuffs including beverages and tobacco – 99.5%. Downward trend of output volumes in light industry in the heat of economic instability is due both to the difficulties with attraction of working capital (due to increased period taken by commercial organizations to return funds due to short-term loans problems) and postponed consumer demand.

Deeper recession in domestic production of consumer goods were not offset by imports and negatively affected the movement and structure of consumer market with account of the fact that there was no adequate response of producers directed at widening import substitution production.

Analysis of principal trends allows drawing conclusion: although in the 4Q 2009 Russian economy managed to get out of the acute stage of the economic crisis, however unstable character of main indicators, low indicators in the investment and credit sectors, difficult situation observed on the labor market determine limitations in the economic development for short-term period.

Aggregate effect of positive fluctuations on the global market of hydrocarbons and government stimulus measures allowed avoiding Russian economy developing along the most pessimistic scenario which was constructed at the onset of the crisis but had no effect on the fundamental issue of low competitiveness of Russian economy. The economy remains under the effect of factors which conditioned the scale of slump and speed for overcoming acute crisis developments (dependence on world prices of raw materials export, low domestic demand and sluggish development by Russian producers of promising market of consumer, investment and intermediary goods, inadequate financial system and the lack of long-term investments in the economy).

Creation of necessary economic conditions for transition from crisis oriented economic development to the recovery growth envisages implementation of measures directed at modernization of industrial potential, promotion of innovative activity, improvement of human capital.

3.2. Russian Industry in 2008-2009: History of the Crisis According to Industrial Surveys

The section was prepared based on the surveys among managers of industrial enterprises, which are conducted by IET in compliance with the European harmonized methodology monthly, from September 1992 and cover the entire territory of the Russian Federation. The panel is about 1100 companies, which employ more than 15 per cent of total employment in the industry. The panel is biased towards large enterprises in each of the sub-industries. Feedback on questionnaires is 65-70 per cent.

Industrial surveys (IS), among business leaders is a quick way to gather information about the assessment of the situation in their enterprises and the expected (planned) changes the key performance indicators of the enterprise. IS is a relatively new tool of economic analysis. The first survey was conducted by IFO Institute (Munich, Germany) in 1949. Soon afterwards such polls have been held in Great Britain, France and Italy. Since 1962, the EU is making efforts to harmonize (make comparable) the surveys in the countries of the continent.

IS questionnaire has a rather small number of questions (no more than 15-20). The questions are of qualitative rather than quantitative nature. Simple design of questions and answers allows the respondents to fill out the forms quickly and without involvement of other employees or any documentation. It is essential that the respondent in each enterprise should be the Manager was the top level, who has a complete picture of the situation at the enterprise and directly involved in the company management. In 2008 30 per cent of responses were received from the Directors of enterprises, 37 per cent - from the Deputy Directors, 23 per cent - from the leaders of economic departments.

In analyzing the results of industrial surveys a specific derivative index is applied, known as balance. Balance is calculated as the difference between the percentage of respondents given the answer about their business standing as "increasing" (or "above regular" indicators) and the percentage of respondents whose assessment was as a "declining" (or "below regular"). The

resulting difference can express the answers to each question by one number with the sign "+" or "-".

Balance is interpreted as the first derivative or the process rate. If the balance of answers to the question about the expected price change is the sign "+", it means that the average prices in the near future will continue to grow (for example, there dominating the companies, reported an expected increase in their prices). The increase of the balance within a month from +10 to +17 per cent means that average prices industry will grow more intense as the increased prevalence of companies predicting growth. A negative balance means a decrease in average prices (more companies are going to lower their prices). Changing the balance of -5 to -12 per cent interpreted as plans of the intensity of lower prices.

3.2.1. Crisis Statistics or Statistical Crisis

In late 2008 the crisis reached the Russian industry. In December, it was recognized by: the Head of the government, then by the Ministry of Economic Development, and only then by the Russian Statistical Service. The procedure was a bit illogical. In civilized countries, it is usually on the contrary, as the statistical service is the primary source of official data on the state of the economy. Russian sequence of recognition suggests that the domestic statistics is not very reliable, as it seems, it is too heavily dependent on other departments, primarily – on those in charge of the national economy. In the recent sustained economic growth that was not so important because the trend was obvious and there could be doubts only in the intensity of growth, which was insignificant. In 2008 the situation has changed: the growth has been replaced by a downfall, but it was uneven and unpredictable.

And here there was revealed another failure of the Russian industrial statistics - limited set of indicators and low speed output data. As a result, some Ministries, trade unions and employers' associations had to start their own monitoring to understand what is really going on in the industrial sectors, and not be trapped in the preparation of a package of anti-crisis measures. There already appeared the term "crisis monitoring". And this is not only statistics of the crisis, this is a crisis of statistics.

Having discovered in the mid December of 2008 the collapse of the Russian industry, the Russian Statistical Service also decided to start active "crisis monitoring". The Head of the Service announced that the RF Federal State Statistics Service in 2009 will conduct a decade monitoring of a number of key economic indicators in the country. The indicators of such monitoring will be submitted to various government committees, while it is not decided whether the results of the decade's monitoring are to be disclosed. Such a restriction in the dissemination of non-confidential information economy was practiced in the Soviet times and then annoyed only analysts, lacking the necessary statistical data. For businesses, those restrictions did not create any problems, since the decisions on the volume of output, prices, investments and other issues were taken by Ministries and other agencies, and the producers had only to "push through" the required indicators for their performance plan in the offices of government. But with the beginning of market reforms, the situation has drastically changed. The vast majority of the enterprises came out from the government custody and make decisions independently. And to this end, they need a variety of reliable, regular and timely information. One of the sources of necessary information to the company is the Russian Statistical Service, funded from the state budget, i.e., taxes on those same companies. Thus, one of the services of the government, paid from the taxes is provided only to a limited (albeit the most important) group

of consumers (to the government authorities), but not to those for whose money it is created. In November 2008, when the majority of businesses were already facing a decline in demand and were forced to reduce output, a renowned economist said that "there is no crisis, ... the Rosstat statistics gathered by "half a million of people", shows no decline in the industry." Perhaps those words were uttered in the heat of discussions, but they belong to a highly qualified researcher, not the one of the Russian politicians. And it's not his fault, but our common misfortune. As the statistics collects the data that is available, but not those which are needed. But even the information that the companies report to Statistical Services, are not delivered and processed for such a long time, that by the time of their appearance in the government they are so outdated that are more valuable for academic research than for the operational management of the economy. It is extremely time-, resource- and effort-taking to readjust this system.

But even the publication of official statistical data on the Russian industry often induces not the flow of comments about the crisis and the debate about what these indicators mean and whether they are true. Thus, the disclosure of Rosstat data on October 15, 2009 on the dynamics of industrial production in September, provoked such comments: "We were not expecting such a large growth", "Is it true the industry started to exit from the crisis", "Industrial change", the "frontal recovery". The experts were unable to explain the grounds of September upsurge in the Russian industry ("statistics has presented to us one more puzzle"¹). Doubts about the reliability of official statistics on demand and stocks made less enthusiastic the expectations to consider the stock indicator as a driver of recovery from the crisis. The growth of the global economy and external demand were more often mentioned. There were hopes that anti-crisis measures of the government started to benefit (i.e., reached the business at last). Unpredictable September upsurge sometimes is "written off" to the errors of the Russian Statistical Service. IET surveys as early as on September 29, 2009 allowed to make a conclusion: "the August halt in the dynamics of the Russian industry was successfully overcome in September. Sales have continued to recover, what allowed businesses to move to the most intense growth of production and the very moderate reduction in staff since the beginning of the crisis"².

Therefore, the crisis of 2008-2010 has demonstrated the limited capacity of official statistics (sparse set of indicators, low speed) and the benefits of short-term surveys (representative set of indicators, high speed and the ability practically immediately start monitoring of the new, most essential indicators).

3.2.2. The overall dynamics of 2008-2009 crisis

To describe the overall crisis dynamics in the Russian industry there can be used the IET index of industrial optimism (IET IPO)³, which is published weekly from October 22, 2009.

¹ http://www.dcenter.ru/pdf/2009/kgb_09-36.pdf

² <http://www.iet.ru/ru/208-opros-sentyabr-2009-2.html>

³ The index is assessed as the arithmetic mean of the balances (the difference in the responses) of the four answers of IET market surveys: 1. The actual change in demand, balance =% of growth -% of decrease. 2. Estimates of demand, the balance of assessment = % above the normal rate -% below the standard rate. 3. Assessment of stocks of finished products, balance =% of higher than normal rate -% the rate below normal, the opposite sign. 4. Plans for changes in output, balance =% of growth -% of decline. Balances of the 1-st and the 4-th issues are cleared from the seasonal and calendar factors. The index can be from -100 to +100. In case of positive values the index positive assessments are dominating. Negative values of the index - negative assess-

This index during the economic crisis makes it possible to solve several important problems. First, it allows practically in on-line mode (against extended timeliness and low frequency of official statistics) to get an idea of the domestic industry state. Second, the enterprises participating in the IET surveys is a "middle class" of the Russian industry. They are located throughout the country and are predominantly involved in the manufacturing industries. Information on the status of such enterprises is not always delivered to the authorities and analysts on time and in the relevant scope. Thirdly, the index is estimated on the basis of indicators that have no analogues in the national statistics, but reflecting the most important aspects of the real situation in the Russian industry (demand, inventory, production plans). They very accurately and fully characterize the enterprises performance, as evidenced by a 16-year experience in conducting and analysis of more than 200 surveys. Long-term, personalized and informal relationships with the respondents (90 per cent of them are the Heads of enterprises) create the conditions for obtaining the most objective information on the Russian industry. Therefore, the IET index of industrial optimism gives an idea about the real situation in the Russian industry. The fact that the real situation in our national economy and Russian statistics are not the same thing, is recognized at the highest level (President Vladimir Putin at a meeting with the Minister Alexei Kudrin on August 21, 2006 said: "Statistics and real situation in the economy show...»¹).

Already the first estimated values of the index showed the signs of crisis in the Russian industry in October 2008 (the index has dropped down to -4.3 points versus +2.0 in September). Only plans for output changes were positive at that time (hopes for growth were dominating) in the Russian industry and not allowed the index to fall below zero indicator. However, there was expressed a prudent assumption is that in November, most likely, they will cease to restrain the index from further decline.

The first estimates of the November (2008) index value (as of November 18, i.e., actually a month before the official recognition of the crisis) has shown a sharp increase in pessimism in the Russian industry. The index value fell down by 33.8 points at once and reached -38.2. There were never such a low value of the index, and in the pre-default period similar values were recorded only in 1995-1996 and in September 1998. The Heads of enterprises gave strong negative assessments of all the components of the index. Russian industry actually fell into crisis. The December index showed further deterioration of the situation, not as catastrophic as it was in November and as predicted by some experts: the index has fallen only by 6 points after the November decline by 26 points. However, the level of pessimism in September 1998 has reached the absolute minimum of the index (as of beginning 1996), only 3 points (*Fig. 1*).

The January index value demonstrated some stabilization of the situation in the Russian industry. As compared with December, the index has grown in January by 2 points and made -32.9. That is, the pessimism in the industry was still great (its scale is comparable only with the 1995-1996 and 1998.), but ceased to grow. In February, the index demonstrated the strengthening trend towards stabilization. In comparison with January, the February Index value improved further by 4.5 points, and compared with the December, the post-default minimum im-

ment of the situation are dominating. Lower values of the index - the deterioration of the situation. The increase in index values – improvement.

¹ See <http://www.izvestia.ru/news/news113617>.

provement made already 7.5 points. March and April values of the index showed stagnation at the level of previous months at a very low level (*Fig. 2*).

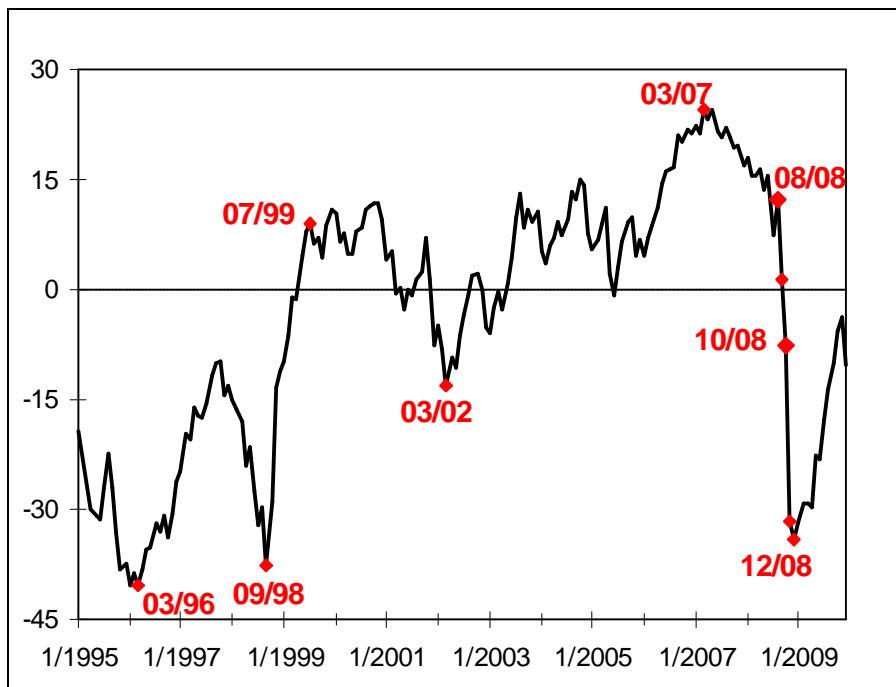


Fig. 1. IET Index of Industrial Optimism, 1995–2009.

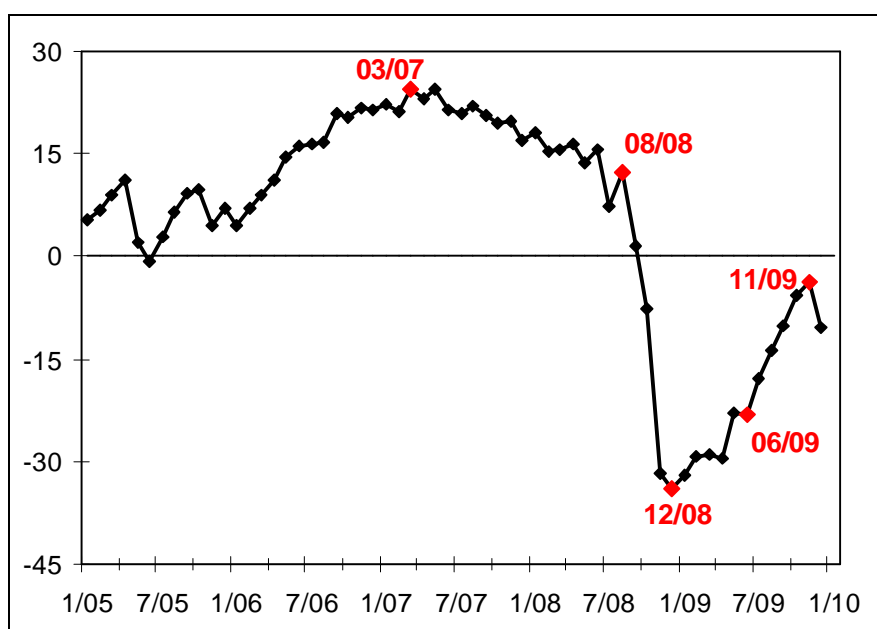


Fig. 2. IET Index of Industrial Optimism, 2005–2009.

But in May, the situation began to improve again. The main reason was the recovery of assessments of the current level of demand and improvement of the assessments of finished

products stock. However, the trend to the pessimism reduction in the estimates proved to be unstable: in June, the index declined by 2 points after the upsurge of the previous month to 6.3 points. From a more profound reduction the index was saved only by a relative improvement in the "output plans." Since July, there has begun the most significant and sustained growth of optimism in the Russian industry, which has nearly dragged the industry from the crisis as early as 2009. In July the crisis minimum (as of December 2008) was exceeded by 16 points. The August index value has exceeded the July level by 3 points and became the next crisis peak (since November 2008). The Russian industry was not in a such good shape in the past ten months. In September, the pessimism has lost another 1.5 points. October was one more month of recovery from the crisis: the index reached its crisis peak of -6,5 item.

In November, the positive trends in Russian industry have disappeared. The November index was equal to October - no significant changes (either positive or negative) trends at the enterprises in November is not registered. The estimates of the December IET index value showed a decrease in optimism of the Russian enterprises in late 2009. The loss of 6 points as compared with the November crisis peak was preserved even in the face of growing output, obtained after cleaning the results from seasonal factors.

However, the first assessments of the industries given by business leaders in January 2010 demonstrate recovery of the situation after the December downfall. The index of industrial optimism returned to the crisis peak, registered in November 2009. Industry is ready to continue recovery from the crisis after the Christmas holidays.

3.2.3. Second half of 2008: beginning of the crisis and the collapse

Let us now consider in detail the dynamics of the most representative array of indicators of the Russian industry since the second half of 2008. Already then the IET surveys results showed a gradual increase in crisis indicators, having resulted in a clear deterioration of the situation in October and a collapse in November.

The first signs of trouble in the Russian Industry surveys have been recorded at the beginning of the second half of 2008. The dynamics of demand and production, assessment of stocks of finished goods stocks and excessive production capacities, forecasts of production and sales showed a growing negative trends in this sector of the Russian economy.

Growing demand for industrial products in mid-2008 remained very low. By all indicators (the original, free from seasonal factors, with the exception of random fluctuations) of sales, the growth rate has dropped to +3 ...+5 balance points, which was the worst value since the end of 2005. This has resulted in the fact that the reduced demand for domestic products became a more significant obstacle to the production growth. In July 2008 its designation as an obstacle increased to 40 per cent, which was the maximum over the previous nine quarters. However, the leader of the "market handicap" in the output growth was still the shortage of human resources.

Under the pressure of demand, the companies were forced to restrain the growth of production. In July, all estimates made on the basis of the surveys indicators showed a slowdown to 12 balance items. It's the worst results of the previous two and a half years, i.e., so slowly the production was not growing since early 2006. The stocks of finished products also confirmed the problems with the sales. The balance of estimates (the difference between the excess of the normal indicator minus below normal indicator) has increased to 14 points and was the maximum over the previous 28 months. The growth rate was caused by reducing the percentage of

responses "below normal" from 15 to 9 per cent, which indicated either the increased delivery of finished goods to warehouses, or the decline of growth prospects for the demand and the revaluation of stocks volume. Both reasons for changing the reserves estimates are extremely negative, because in any case they mean a decrease in the intensity of the output growth.

The slowdown in demand has abolished the lack production capacity in the Russian industry already at the beginning of the third quarter of 2008. For the first time, the lack of production capacity was recorded in the surveys of the second quarter of 2007 and reached 10 balance points at the beginning of 2008. However, later the share of "insufficient" estimates has dropped from 21 per cent to 15 per cent in the background of an increase of the share of "more than enough" estimates from 11 per cent to 18 per cent - the balance again became positive. The demand, therefore, no longer justified the investment efforts of the Russian companies in the recent years. This thesis is confirmed by the statistics of the handicaps to production growth. If in mid-2007 the shortage of equipment hindered the increase in output by 32 per cent of companies (the third place among 10 tracked constraints on growth), in the middle of 2008, it was referred to only by 21 per cent of manufacturers (the 5-th place).

In August, the negative trends have become even more evident. It began an absolute reduction of effective solvent demand for industrial products. So far, though, with the minimum intensity (-2 balance point), but supported by a similar result and after purification from random fluctuations. As a result of the slowing demand, the trend formed in the second quarter of 2007 has reached its logical conclusion. The industrial production growth, according to the surveys, hated to slow down.

However, the relatively long-term and stable negative trends in the dynamics of demand and output enabled enterprises to adapt to them. As a result, the demand satisfaction in the Russian industry in the summer of 2008 has stabilized at the level of 60-63 per cent. A similar situation is observed with the stocks of finished products. Russian enterprises have been able to keep their volumes within a reasonable redundancy, allowing to quickly respond to the new orders. However, in a slowing of demand and production, the estimates of reserves lost their stability and become less optimistic, what is reflecting uncertainty of producers about the sales prospects.

In September of 2008, the situation in Russian industry continued to aggravate. The intensity of demand reduction has reached -13 b.p. and was the worst since mid-2002 (see *Fig. 3*). The absolute decline in demand (i.e., the predominance of responses "declined" over the share of "growth" estimates) was already happening in all sectors except for the food industry. That fact provoked a collapse in the satisfaction of production volume. In September, already 45 per cent of businesses believed the demand for their products was "below normal" (against 34 per cent in August). Such a great dissatisfaction with sales has not been noted since April 2006. An absolute decline in demand forced the industries to stop the growth of production in September.

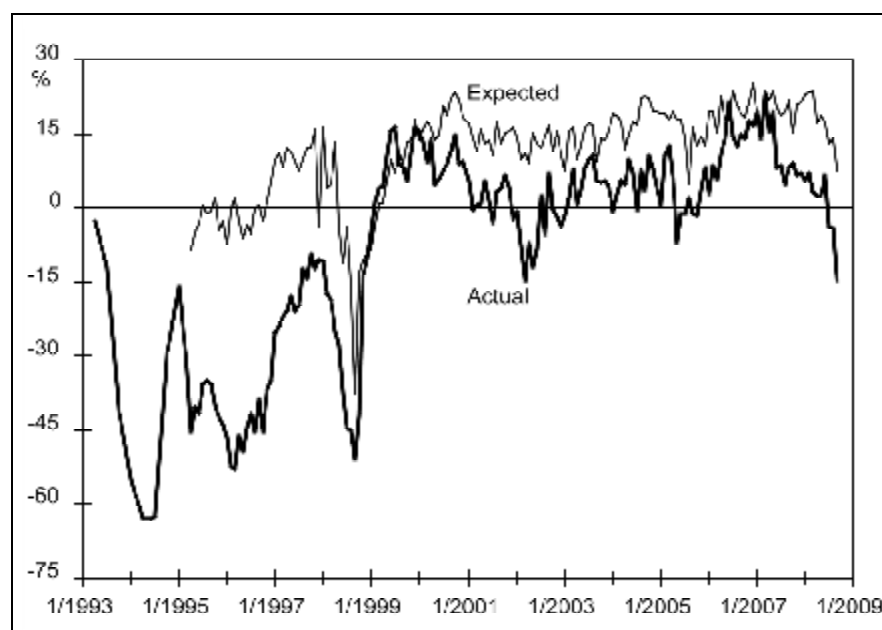
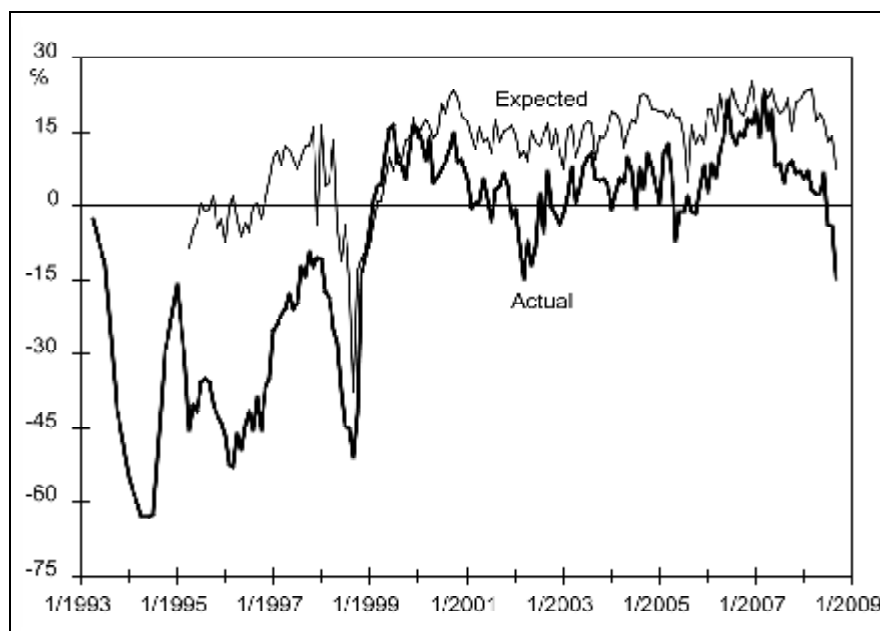


Fig. 3. Changes in the effective solvent demand, cleared from seasonal factors
(balance = % growth - % decrease)

Reduced sales forces enterprises not only to restrain production, but also to curb the growth of prices. In September, the balance of change (growth rate), in selling prices has declined (based on initial data) from 18 to 8 points. Cleanup of seasonal factors showed 1.5-fold slowdown and the lowest rate of growth over the previous three years. The second positive point September situation was the assessment of finished products stocks. They did not go beyond the ordinary level of recent values, indicating that accurate policy of producers in this area. Enterprises have been able to withstand such a ratio of actual output, the actual demand and prospects, which did not lead to physical overflow and negative adjustments to estimates of storage stocks. In September 2008, there were no crucial changes in the availability of credits to the Russian enterprises. For 69 per cent of producers it remained normal and the same as in the first and second quarters of 2008.

In October, the situation in the Russian industry has become even worse. Firstly, the intensity (balance) of the reduction in demand for industrial products has reached unprecedented for post-default (since 1998) period values. Such values of this index were recorded only in January, and even not every year. Clearance from seasonal and random fluctuations only slightly adjusted the rate of decline in demand, but has maintained its record values: there was no such intense demand since October 1998. Secondly, the satisfaction of demand in the Russian industry has dropped to 50 per cent, i.e., only a half of the enterprises considered the volume of their sales as normal in the pre-crisis situation. As compared with the absolute maximum (August 2007), a decline of almost 1.5 times and was the worst for the previous 32 months. Thirdly, the production growth has completely stopped. If in September the balance of output changes (after clearance from seasonal factors) still showed a modest positive trend, the October growth was zero. This indicator became the worst one since November 1998 (Fig. 4).



*Fig. 4. Changes in Production, Cleared from Seasonal Factors
(Balance =% growth -% Decrease)*

In the IV-th quarter of 2008 the structure of interference growth against the industrial production is starting to change. As expected, in the first place there was the "domestic effective demand". It was considered as an obstacle by 45 per cent of companies (growth in comparison with the III-rd quarter was by 9 points). The 2-nd place in the rating was a shortage of current assets. Since two thirds of enterprises have used their credits for replenishment thereof, the credit crunch has increased the prevalence of this interference for the quarter by 8 points, as compared with the absolute minimum (I-st Quarter of 2007) – by 12 points. As a consequence, a sharp (by 13 points per quarter) downfall in the companies' stocks and raw materials were reduced: at the beginning of the IV-th quarter, there were normal stocks only at 63 per cent of the enterprises, which was the worst value over the preceding 11 quarters. The situation was aggravated by the default. For the quarter, their reference in the industry has almost doubled (from 12 to 21 per cent). However, this interference appeared only in the 5-th place, but in early 2008, it was in 8-9-th place.

The third place in terms of interference, i.e., "shortage of qualified personnel", in 41 per cent did not look like disturbing in the IV-th quarter. In other words, at that time the companies considered their employees as a rather valuable resource, and understood that in the recession of the vocational training system and the devaluation of higher education even possible massive dismissals in other sectors of the economy would not allow them quickly to find qualified workers and engineers. The pressure of competing imports was sharing the fifth honored place with non-payment and low export demand, but has also reduced the share of the processing industry to 21 per cent after the absolute maximum (31 per cent), recorded in the third quarter. There were clearly reduced reduction ambitions of the Russian manufacturers, starting with the efforts to reduce costs and monetary disturbances.

Russian enterprises involvement in the crisis occurred relatively smoothly. Several indicators testified for the possibility of "downgrading" for the domestic industry. First, the companies

accurately managed their inventory of finished products. The balance of their assessments remained within the normal for the preceding period corridor values, although not so stable – there was some nervousness. But one could not expect excessive stocks of finished products in the industry.

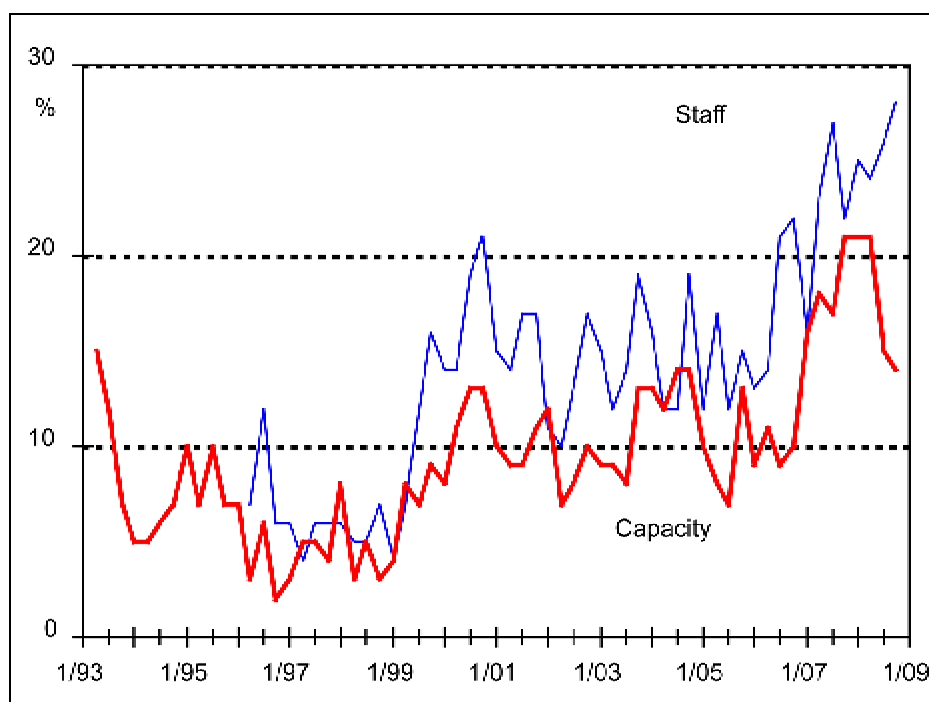


Fig. 5. Proportion of businesses with inadequate facilities and staff

Secondly, there were no sufficient grounds to talk about massive dismissals in the Russian industry in October. To a significant part of the enterprises HR still prevent to increase the output (see above). Assessments of the current staffing levels in view of the expected changes in demand still inspired optimism in the critical situation (see Fig. 5). In the domestic industry in October 2008, 28 per cent of businesses consider their staff is insufficient (26 per cent in July and 24 per cent in April) against 10 per cent businesses who think of there is an excess in the staff (after 9 per cent in July and 5 per cent in April). The majority of producers (62 per cent, July - 65 per cent, April - 70 per cent) regard the existing staffing adequate to the anticipated changes in demand.

In November, Russian industry totally drawn into the crisis. Following the sharp decline in sales, companies began to cut down the output, reduce costs and dismiss their staff. However, the storages of finished products were filling, and financial and economic standing of enterprises was deteriorating. Forecasts of the majority of producers were also disappointing: due to credits reduction, the expected significant reduction in demand there was planned a reduction in the output.

The rate of decline in demand for industrial products in November has reached the values recorded earlier only in the 90-th years of the twentieth century. This indicator fell down to -62 balance points, while in August he was +3, and in June +14 points. Clearance of the seasonal factor only slightly adjusted the rate sales reduction: now it is -54 points and is inferior only to

the results in 1994. As a result, the estimates of sales volumes have dramatically changed. They have remained normal for only 26 per cent of enterprises, 71 per cent believed the current demand was "below normal". In August of 2007 (the peak of prosperity for the Russian industry) there were opposite estimates: the demand was normal for 72 per cent of enterprises, and "below normal" for 23 per cent of enterprises.

The downfall in demand forced the industry to reduce output. If in October the intensity to reduce production was minimal (-1 balance point after the seasonal factors clearance), in November this indicator had risen to -41 b.p. Only in 1994, the rate of decline in output exceeded the results in November 2008, however, this reduction in output seemed to be insufficient - the industry started to change to the negative side of inventories assessment. Balance (above-below normal) has worsened over the month by 8 points and made 19 points, which actually was the maximum of the previous five years.

Reduction in demand is providing an increased pressure on producers' pricing. In November, the Russian industry has transferred to an absolute decline in prices. The rate of actual changes in producer prices has reached a minimum record (over 1993-2008 years., based on initial data). After clearance from seasonal factors, the November result was the second for the specified period. More intensively prices were declining only in July 1998. Price estimates of enterprises were also under a fundamental revision. In October, the industry was still planning to increase prices (not so intensive as in July – August, of course), whereas in November, there already began to dominate the intention to lower selling prices. Herewith, the November result in 2008 became a historic minimum for both, the initial and free from seasonal factors data.

The first counter-crisis measures of the government have been ineffective. The massive monetary infusions into the Russian economy did not reach the majority of industrial enterprises. In November, the availability of borrowed funds were sharply decreased. If in September 2008, the normal access to credits had 64 per cent of companies (maximum - 80 per cent was registered in August 2007), the availability of "below normal" - 22 per cent, then only two months later the situation was reversed. In the first crisis month the normal access to the borrowed funds had only 22 per cent of enterprises, "below normal" had already 63 per cent (*Fig. 6*).

Results of December were not so gloomy: the development of crisis in the Russian industry has slowed down a bit after the November downfall. Maintenance of the same intensity of reduction in demand has allowed the businesses to stabilize the rate of reduction in output. The main lever of the fight for the buyer were the prices, the rate of reduction of which has exceeded even the result of the beginning of 1998.

In December, the indicators of the of falling demand intensity has not changed. A certain role in stabilizing the rates of decline in the demand was also played by the pricing policy. In late 2008, the surveys have registered an unprecedented reduction in producer prices. The balance of this indicator fell to -26 points after – November 15, and by -6 in October. Such a high rate of reduction of the actual price was not recorded even in the first half of 1998, and the December plans the reduced prices reached an absolute record over 199 previous surveys.

It did not help in the fight against excessive stocks of finished products. Their estimates have gone beyond the traditional values of previous years – there started to grow surplus savings in the industry. In December, the balance of assessments has grown to +29 points and was the maximum over the previous 13 years.

The situation of the enterprises of real sector and the continuing decline in the availability of credits was aggravated. In December, the normal access to borrowing funds has declined by another 5 points and reached 17 per cent. That's the number of enterprises which regarded as normal credit rate and other credit conditions in the domestic banking system, which has received huge infusions of national liquidity and reporting on the great support of the real sector. Apparently, without of national support of the banks and pressure on them by the government authorities, access to credits would have been even lower.

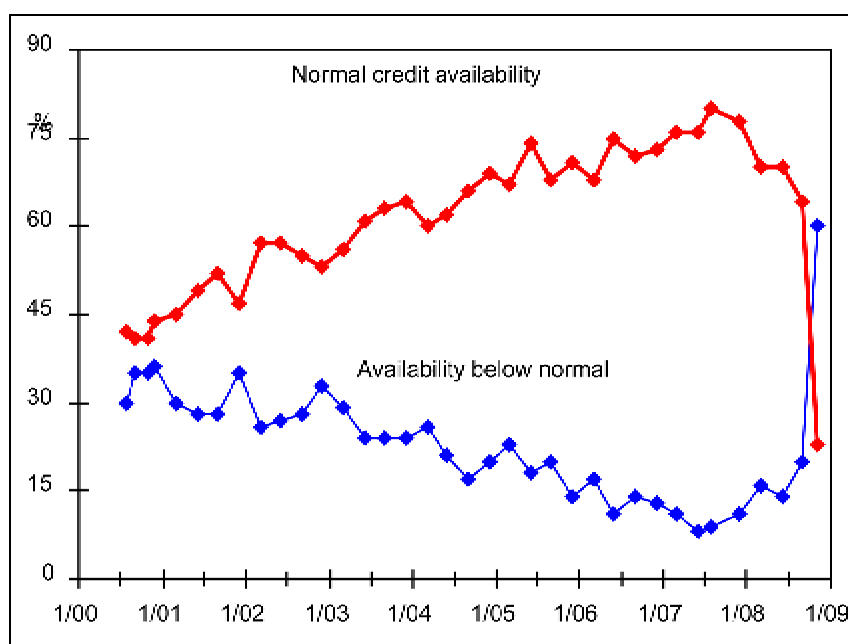


Fig. 6. Credits Availability Indicators

3.2.4. The First Six Months of 2009: Stabilization

Already in early 2009, positive trends started to develop in the Russian industries. Slowing rate in demand has led to the stabilization of satisfaction with sales volumes and allowed businesses to adjust the dynamics of production. A crucial change in price and production policies has restrained further warehouses overstocking. The industry formed an excess of production capacities and personnel, creating a basis for recovery growth.

The rate of decline in demand has slowed down in January to -32 b.p. after -50 b.p. in November. The demand growing dynamics allowed the industry to adjust and the dynamics of output. In January, the decline output reduction rate (upon clearance of seasonal factors) changed from -30 to -10 b.p.

However, the negative signal at the beginning of 2009 was the strengthening of prevailing "insufficient demand" in the rating of barriers to production growth. Low demand was regarded as an obstacle by 67 per cent of enterprises, which is by 21 points more than in the IV quarter of 2008 and by 41 point above the absolute minimum (in the III quarter 2007). Comparable scope of this barrier were recorded in 1996, 1998 and 2002, respectively; the larger ones - only in 1994. The absolute maximum was reached in the mentioning of the lack of export demand, affected by the global nature of the crisis. The weakness of foreign markets pro-

voked a limitation to 36 per cent of the Russian industrial enterprises. The post-default minimum (11 per cent as of the IV-th quarter of 2007) was exceeded by more than 3-fold. Non-payments were still aggravating the situation (third-rank barrier). In the I-st quarter of 2009, they served as an obstacle to 39 per cent of enterprises after 10 per cent in late 2007 - early 2008.

But the monitoring of barriers and detected positive trends as well. The shortage of current assets was shifted to the 2-nd place. However, growth of restraining impact of this barrier in the Russian industry has stopped: after reaching at the end of 2008 the level of 50 per cent mentioning (the maximum over preceding 22 quarters), in January 2009, it was referred as a barrier by 46 per cent of the enterprises. The lack of credits restrained the production of only 18 per cent of enterprises. Competing import has reduced its negative impact on the Russian industry up to 11 per cent, which is nearly 3 times lower than the absolute maximum (31 per cent), recorded only in the III-th quarter of 2008. These were the first confirmed results of exchange rate policy of the RF Central Bank. Shortage of staff at the beginning of the year was regarded as a barrier only by 16 per cent of the enterprises, whereas six months later it was mentioned by 49 per cent of manufacturers, which means a three-fold reduction. The lack of equipment is regarded as a limiting factor of the output growth by 10 per cent of enterprises against 24 per cent in mid-2008 and by 32 per cent of enterprises eighteen months earlier (absolute maximum).

A positive factor at the beginning of the year was stabilization of the situation with industry crediting. Availability of credits, collapsed in November by 40 points at once, has declined in December, only by 6 points, and in January 2009 has increased by 5 points. The normal access to credits at the beginning of the year had 22 per cent of the enterprises.

In February 2009, the positive effects in the crisis situation continued to strengthen. The rates of decline in demand were lower, allowing companies to move to a less intensive reduction of output, and sometimes even to its growth. Enterprises started to change their pricing policy - producers refused to lower prices, and in the forthcoming months were ready to increase them.

Demand continued to fall fairly rapidly, but still not as strong as in November - December 2008. The balance (increase-decrease ratio) increased to -33 points, what was better against "cleared" results of previous months (-51 ... -45). Industrial production in February continued to decline, but also clearly not as intensely as in January 2009 and all the more so in December - November 2008. Capacity utilization has shown that in the I-st quarter of 2009, the Russian industry was still significantly falling behind in comparison even with the IV-th quarter of 2008. If in October 2008 the 70 per cent of production capacities were utilized, at the beginning of the new year that indicator fell down to 53 per cent. Such a sharp decline over the quarter was never noted before (see *Fig. 7*).

However, the assessment of stocks of finished goods in February remained at a relatively, but not extremely high level for the past 17 years. In 1994, the surplus was almost 2 times higher, and in late 1995 - early 1996 - about the same; before the 1998 default - 4 times lower.

In February, further positive developments in the banks' crediting to the industry became noticeable. Already 28 per cent of companies could afford to borrow in credit agencies. The growth rate reached 11 points as compared with recent absolute minimum (December 2008).

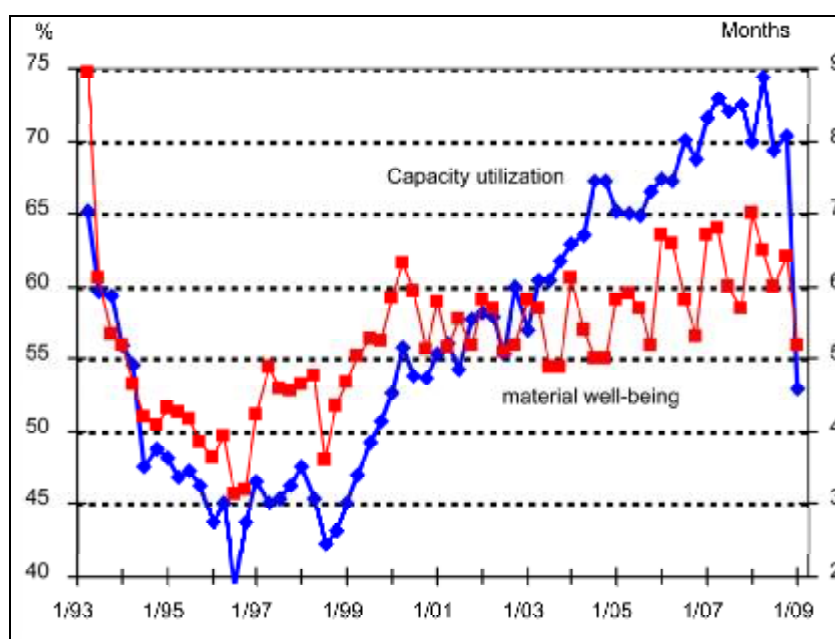


Fig. 7. Capacity utilization rate (%) and security orders (months)

In March, the positive trends of the first months of the year have not been further developed. The dynamics of demand, estimates of sales and stocks of finished products demonstrated that there were no firm foundation for growth in the output of the Russian industry so far. This forced the companies to refrain from more intensive growth of prices and re-extend the practice of dismissals.

In March, demand continued to decline rapidly, but not so intensively as in November - December 2008. Upon clearance of seasonal factors a stabilization of the rate of decline in demand was observed in the I-st quarter of 2009 at the level of -36 ... -34 b.p. In 1998 this indicators was falling to -45 ... -50 points, in 1996 - up to -60. Stabilization of the rate of decline in demand has frozen the estimates sales volumes. In the I-st quarter of 2009 the demand satisfaction was sustained at the level of 23, indicating the Russian enterprises got adapted to the situation existing at that time.

Availability of credits for Russian industrial enterprises in March remained almost unchanged. At that time regular access to borrowed funds had only 24 per cent of producers (versus the crisis minimum in December 2008 – up to 17 per cent). Average indicators of the availability of credits in the I-st quarter of 2009 reflected the banks' sectoral priorities in the real sector in the first months, when the crisis was realized. As one can see from the graph, the positive attitude of banks differs by more than twice, depending on the industry sector of the potential borrower (Fig. 8.).

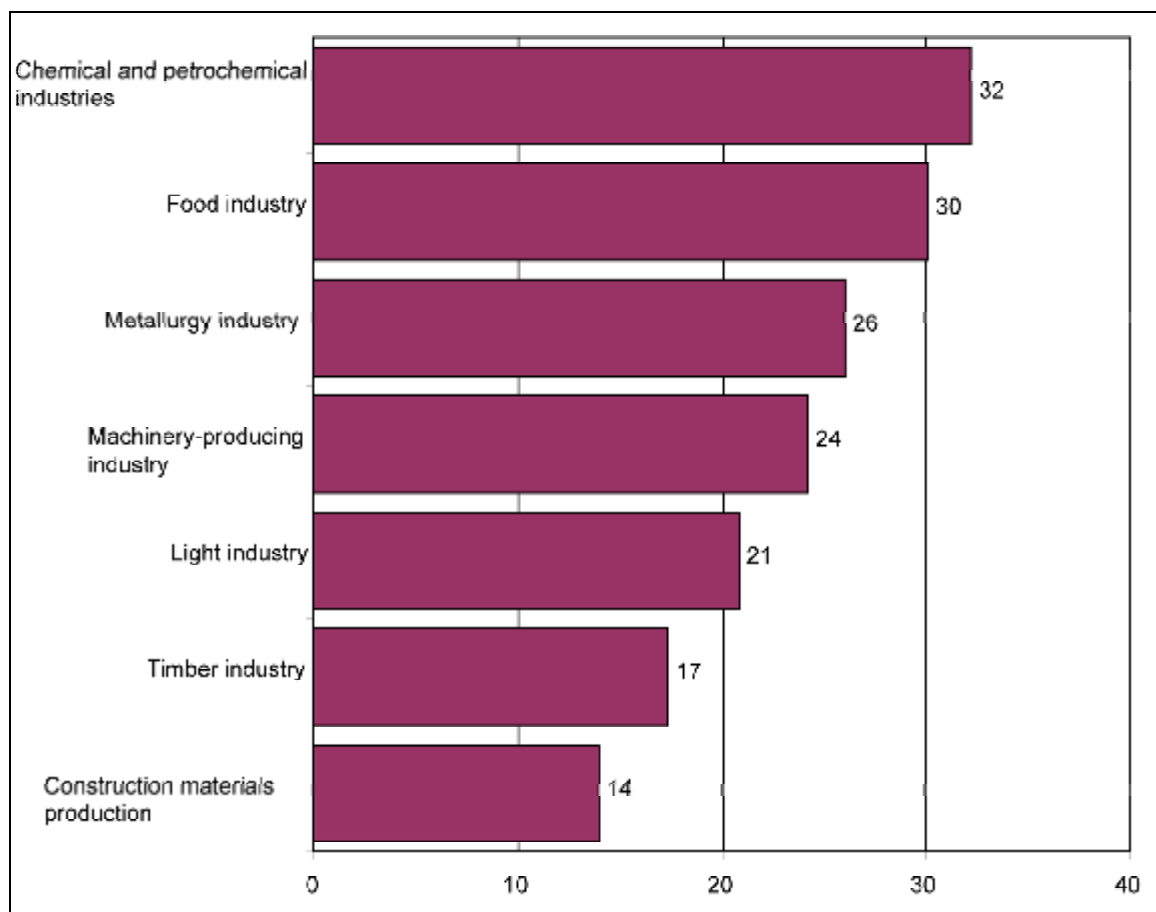


Fig. 8. Regular access to credits by industries in the I-st quarter of 2009, %

A similar pattern was observed in the first months of 2009 and in the banks' attitude to businesses of different scale: the larger the enterprise, the greater the chances of getting credit (*Fig. 9*).

The ability of companies to service already obtained credits can create problems both, to the borrowers and to the lenders. In the industry in general, among businesses with loans (they are taken as 100 per cent), only 60 per cent of borrowers in the 1-st quarter estimated their financial capability as sufficient to perform their already existing credit liabilities to the banks. The leaders in that ranking of reliability were metallurgy (85 per cent of businesses, which regarded themselves able to pay for credits), light industry (80 per cent) and food industry (74 per cent). Most of the problems with the return of loans could arise from banks, providing financing to the construction industry (25 per cent). Machine-building plants were reliable at that time in 52 per cent of cases (*Fig. 10*).

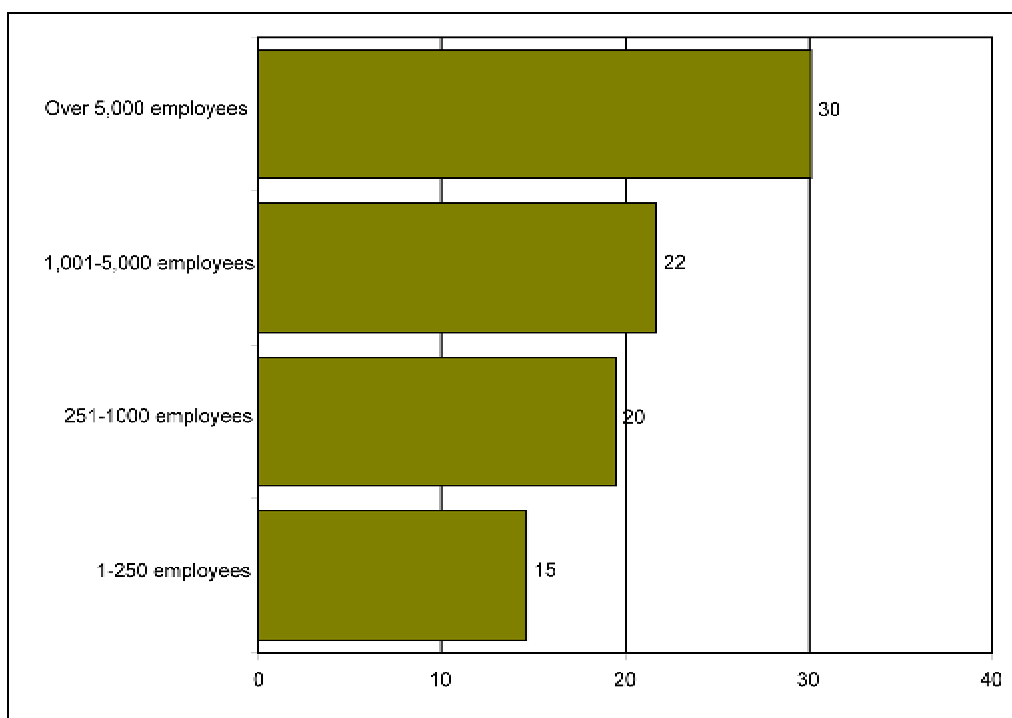


Fig.9. Regular access to credit by size of enterprise in the I-st quarter of 2009, per cent

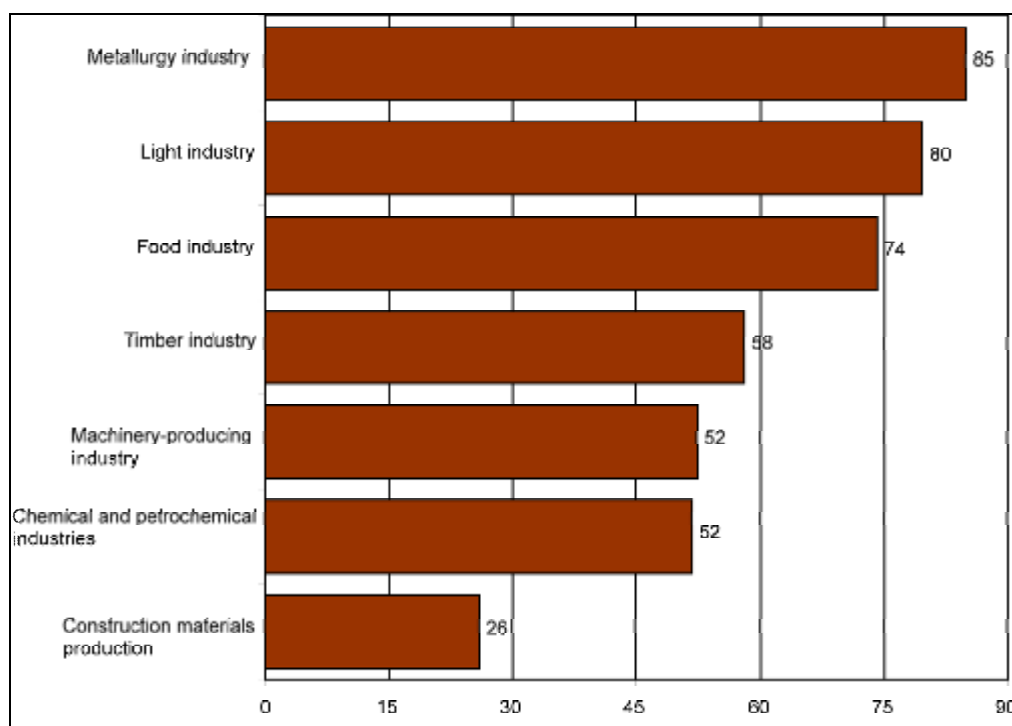


Fig.10. Share of businesses in industries that could pay for credits, %

In April, it became clear that hopes for a quick recovery from the crisis did not come true, - industry again began to get prepared to a more significant rate of demand reduction, output and lower selling prices. At the same time, the emotions from a “hard landing” at the first months of the crisis gave way to sober estimates and attempts to predict the immediate future.

Demand for manufactured goods continued to decline with the same intensity (as in January - March). Estimates of demand in April returned to the levels of December - January. Industry has lost hope of slowing sales decline, which appeared in February - March, and once again was getting prepared to the higher rates demand reduction. The changes in the output, as well as in demand were not so intense, and according to the enterprises estimates, no changes neither in April, nor within the following four months of 2009. As a result, industry has seriously adjusted its output plans for the next two months: estimated rate of decline in manufacturing got worse immediately by 7 points, and returned to the level of December - January. Targeted assessments demonstrated that some optimism of preceding two months (expressed in the gap between production plans and the real demand) started to decrease. In April, 77 per cent of companies planned their output in accordance with the forecasts of demand. In February, there were only 72 per cent of them. The highest correlation to anticipated changes in the output and demand over the entire period of monitoring (88 per cent) was registered in December 2008.

Availability of credits for industrial enterprises has grown in April to 31 per cent. However, changing the credit policy of the banks involved mainly rather large business (exceeding 5,000 employees) enterprises, a free access of which to the of borrowed funds increased to 36 per cent. Small and medium-sized businesses (up to 250 employees) did not feel any changes, rather the opposite: only 13 per cent of companies in this category were in April, the regular access to credits over 16-17 per cent in December – February.

In May, the industry was staying at the bottom of the crisis. Neither positive, nor negative significant changes in key indicators did not happen in May. Demand continued to decline with the same intensity (as in January - April). The intensity of the lower output in May was slightly lower. Production plans of enterprises after clearing of seasonal factors were the interval of -8 ...- 5 b.p., what suggests an adaptation of enterprises to the crisis and the lack of hope for a quick recovery. Capacities utilization also witnessed that the situation with was not aggravating in second quarter of 2009. This indicator in the 1-st quarter fell down to 53 per cent after 70 per cent in October 2008 and by April had risen to 58 per cent.

The intensity of dismissals in the Russian industry by May 2009 was also stabilized (see *Fig. 11*). The rate of reduction of the number of employees remained at -28 ...- 26 b.p., which is almost twice lower (i.e., better) than the January indicator and equal to the October (2008) indicator. If we exclude the January (2009) downfall of the indicator (which is explained largely by panic, rather than by rational behavior, and seasonal factors), the pace of dismissals in the first months of 2009 and October 2008 were the highest since the monitoring of this indicator in 2003).

In June, the situation in the Russian industry has not actually changed. The initial rate of decline in sales was sustained at the level of in May (-23 b.p.). Clearance from seasonal factors has demonstrated its increase (worsening) by 4 points, but as a result, only returned it to the average value of May 1-st, to the average indicator of the first six months of 2009.

The deterioration of the sales dynamics (a growing reduction rate) has decreased the satisfaction with their volume. After fluctuations in the previous two months, this indicator also re-

turned to the average level of 2009. As a result, 3/4 of Russian enterprises in June were unsatisfied demand for their products. However, the stability index in the background of continuing intensive reduction of sales and total uncertainty about the prospects for the recovery from the crisis was clearly demonstrating the adaptation of enterprises to the crisis. Such stability in the estimates of demand in previous crises was not observed in the Russian industry .

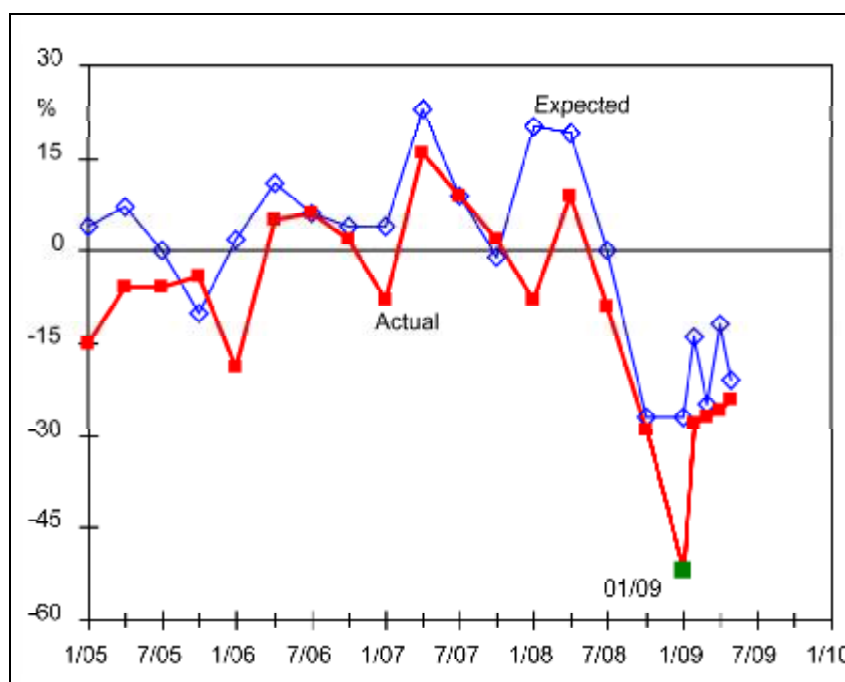


Fig. 11. Changes in employment (balance =% growth - % of decrease)

3.2.5. 2009, Second Semester: an Attempt to Overcome the Crisis

In July the situation in the Russian industry has definitely improved. However, significant positive changes in the dynamics of demand, output, employment and the stock assessments was not found in the Plan for the next few months. This indicated uncertainty about the enterprises' maintaining positive changes in July 2009.

At the beginning of the 2-nd half of the year the rates of decline in demand for industrial products have undergone significant positive changes – over the month the balance, cleared from seasonal factors has improved by 12 points and reached -18 b.p. (See Fig. 12). Therefore, the demand continued to decline, but not as intensively as in the IV-th quarter of 2008 and in the 1-st half of 2009. The demand forecasts in July have also improved, but not significantly (only by 3 points), like the actual sales. The apparent improvement in the dynamics of demand has allowed the businesses to make an equally obvious positive changes in the dynamics of the output in July. Cleared from seasonal factors data showed a zero rate of decline in output in July, which was the best level of this indicator since October 2008.

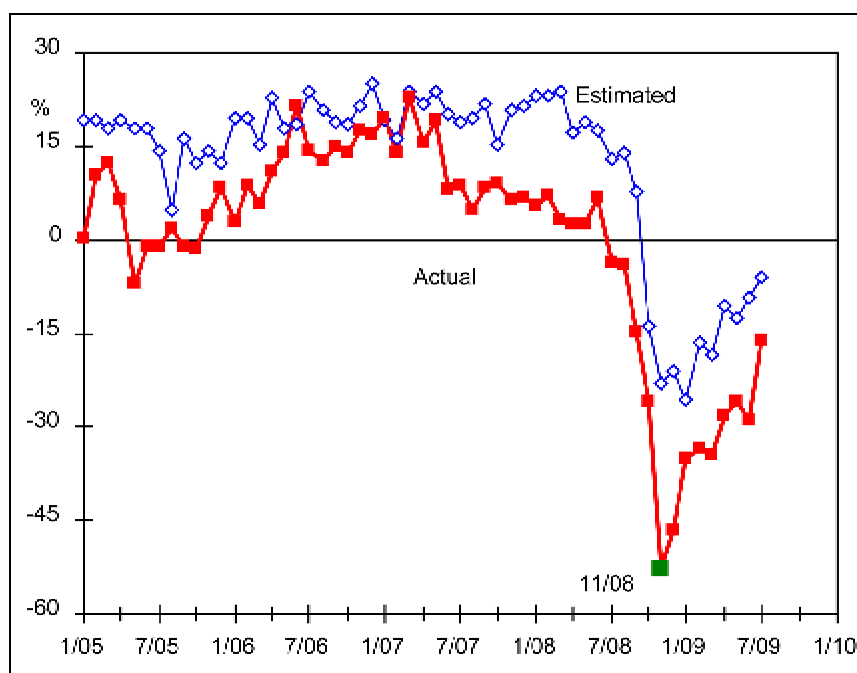


Fig. 12. Changes in effective solvent demand, cleared from seasonal factors
(balance = % growth - % of decline)

However, the slowdown in demand reduction was unexpected (or perhaps, seemed to be unreliable), to many of enterprises which could not (or did not take the risk) adjust their production dynamics. As a result, the gap between the changes between the output and demand levels has increased in the Russian industry up to 13 per cent versus 7 per cent in June. The average value of this indicator over the crisis months in November 2008 - June 2009 was 6 per cent. Nevertheless, the majority of enterprises (58 per cent) adequately responded to changes in demand, while 29 per cent of production businesses, by contrast, took the risk to increase the output ahead of sales. Production plans of companies in July were practically unchanged as compared with June and were worse than the actual changes in the output. Such a ratio of planned and actual changes in output over the 17-year-old practice of surveys is infrequent and indicates an uncertainty of producers in the stability of the prevailing rate of the output growth.

Balance assessment of finished products stocks under the scale of "above normal - normal - below normal" has fallen down in July by 7 points and came to the pre-crisis level (*Fig. 13*). Industry, given the sharp slowdown in demand reduction and sustained improvement in forecasts of its changes, has made significant adjustments in the estimates of the warehouse stocks. Thus, by the end of the 1-st half of 2009, the shock of the first months of the crisis in both, psychological and physical terms was overcome (judging from the stocks of finished products).

Availability of credits of the Russian industry in July ceased to grow, but as compared with May (the best month of the crisis) has decreased by 2 points. The change is, of course, insignificant, but sufficient for the conclusion on unimproved situation with industry crediting, despite the persistent and varied efforts of the authorities. But it is wrong to make the conclusion that the industry was suffocating without credits. According to enterprises assessments, the lack of credits in the III quarter was only at the 6-th place (21 per cent of references) among 13 barriers, tracked by IET surveys.

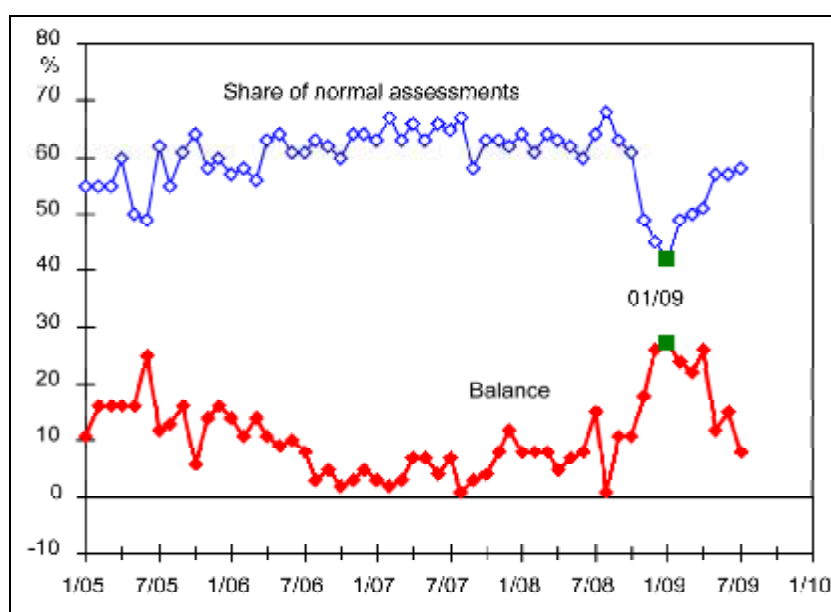


Fig.13. Balance of finished products stocks assessment
(balance = % higher -% below normal)

In the situation of crisis and credit constraints has changed, as well as the structure of the borrowed funds utilization in the industry (see *Table 1*). The most significant changes undergone the investments in production: from 47 to 24 per cent reduction in the use of loans for the upgrading of production, from 30 to 17 per cent - to expand production. Other trends of the funds use either retained their shares, or even increased. There is still 2 / 3 of the enterprises, using loans to replenish working capital like before. Up to 27 per cent has increased the share of credits used for payment of wages, up to 17 per cent - to repay the debts to suppliers and to 7 per cent - to redeem the debt to other banks. Herewith, one fifth of the industrial enterprises has reported the absence loans in July 2009.

Table 1

Trends of Credits Utilization in the Industry (% of Respondents)

	2003	2004	2005	2006	2007	2008	2009
No credits	12	8	10	9	9	9	20
For R&D, know-how, license acquisition	2	6	6	2	1	6	6
For production upgrading	22	31	36	36	36	47	24
For production extension	13	23	24	25	27	30	17
For working capital	66	68	70	62	57	65	66
For sales management	2	1	2	1	1	3	1
For compensations	27	27	22	26	19	19	27
For export contracts	8	7	11	12	7	6	7
For debts redemption to other banks	6	9	7	9	5	5	7
For debts redemption to the suppliers	14	9	11	13	9	11	17

Note. In 2009 the survey was conducted in July.

The main reason for reluctance to take credit or failure to obtain a credit (in case of application to the bank) in mid-2009 was mentioned by a great number of enterprises (see *Table*.

2). On average for the industries it was referred to by a third of enterprises. But the restraining effect of this factor varies considerably by industry. If in the chemical and petrochemical industries, it was the only obstacle for 21 per cent of enterprises, in the light industry - for 39 per cent and in non-ferrous metals - for 46 per cent. Therefore, the pressure on the government on credit refinancing rate provided a different effect in different industries. A second barrier in obtaining credit by a company (banks, of course, in the first turn) felt uncertainty in the enterprises standing. But even here the variety was significant: from 13 per cent in light industry and 15 per cent in the chemical industry to 31 per cent in machine-building industry. To reduce the height of this barrier was much more difficult.

Table 2

**For What Reason the Company Decided to Avoid to Take Credit
or Failed to Obtain a Credit in 2009**

	All industries	chemical and petrochemical industries	Machine-building	Construction materials	Light industry	Food industry
No need for credits	13	16	9	17	31	12
Credit obtained	30	25	25	38	26	51
Too high credit interest	33	21	38	27	39	25
Too short timeframes	9	14	4	10	9	14
Shortage or other problems with credit security	20	27	21	17	17	13
Uncertainty in the company financial standing	24	15	31	20	13	17
Formal grounds of the bank rejection	9	7	12	10	5	10
Other reasons	3	4	3	5	2	10

Source: July (2009) IET survey.

After some positive changes in the July, in August the Russian industry has slightly slowed down. The rate of decline in demand for manufactured goods in August increased (i.e., worsened) by 3 points after the July improvement by 12 points. The increase in the rate of reduction in demand has forced the industry similarly adjusted the rate of decline in production: in August, the production declined by 4 points more intensively than in July, but less intensely than in any other crisis months. The production plans of enterprises, as well as forecasts of demand, in August improved by 6 points at a time, while in February they rose by 2 points every two months. As a result, in August they were for the first months of the crisis definitely positive. Capacities utilization in the III-rd quarter of 2009 was 57 per cent and remained practically unchanged as compared with the II-nd quarter (58 per cent).

The demand, of course, was the most significant and persistent barrier in the industrial growth in 2009 (see *Fig. 14*). The lack of working capital was sustained in the second place in mid-2009, but over the four quarters of the crisis, it lost 9 points. If in the IV-th quarter of 2008, it mentioned by 50 per cent of companies, in the III quarter of 2009 - already by 41 per cent. In the 90-s years of the twentieth century the shortage of working capital was considered as a barrier by 70-80 per cent of the enterprises. Non-payments, which growth analysts feared with the beginning of 2009, have gradually gave way. In January 2009 they were considered as a barrier by 41 per cent of companies, in July - only by 34 per cent. This is, of course, a lot as compared to the 1-st half of 2008, when the non-payments were reported only by 10-12 per

cent of the enterprises, but certainly is small as compared with the 90-s years when they were regarded as a barrier by 70-80 per cent of producers.

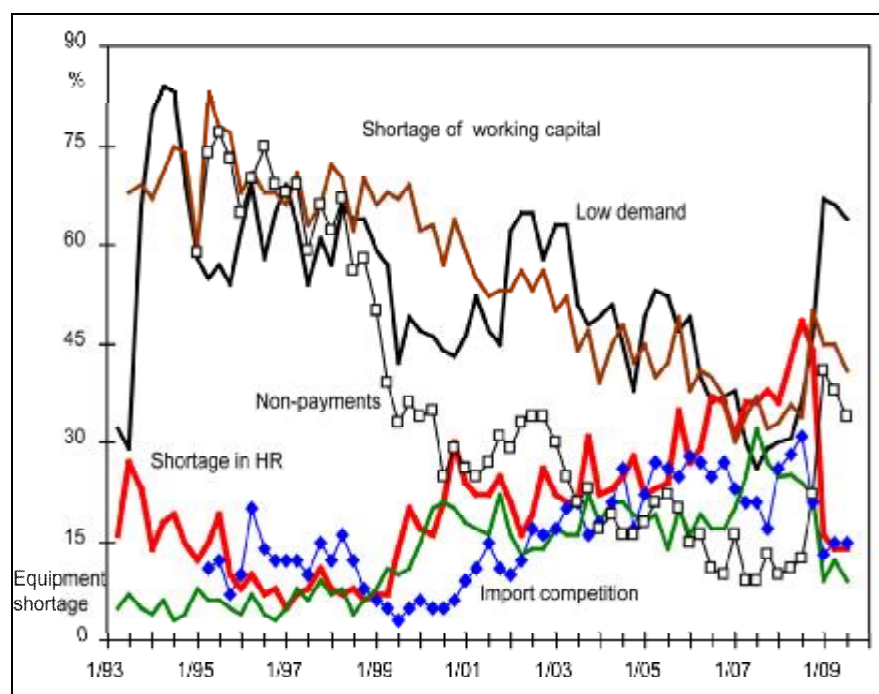


Fig. 14. Barriers in Production Growth

HR shortages, which was leading in the ranking of growth restriction in the output of 5 quarters in 2007-2008 from 36-49 per cent, during the crisis has reduced its restraining effect to 14 per cent and did not change the scale of its prevalence in the Russian industry since 2009.

In August the government managed to turn the trend in crediting the real sector. The share of the normal credit availability assessment increased over the month by 11 points and reached 41 per cent. Particularly sharply improved the banks attitude to the metallurgy and forest industries. At the same time, the companies could reconsider their need for credit.

The lack of equipment (capacities), which was frequently referred to by experts as a barrier from crisis through import substitution was estimated otherwise by enterprises in mid-2009 and in the near (already quite optimistic) perspective. The lack of equipment was mentioned as an obstacle to the output growth in the III quarter of 2009 only by 9 per cent of enterprises. The peak of references (32 per cent) occurred in the III-rd quarter of 2007, but the investment activity has gradually reduced the occurrence of this limitation in the Russian industry up to 22 per cent (October 2008), and the crisis then allowed to reduce the indicator by another 13 points. In the 90-s years the reference to this factor was lowered to 3 per cent. And in connection with the anticipated changes in demand there was formed a relevant stock of facilities in the industry (see Fig.15). Since early 2009, though it was slightly decreased (by 6 points), but the balance is still clearly in favor of the rapid growth in output due to unused capacity.

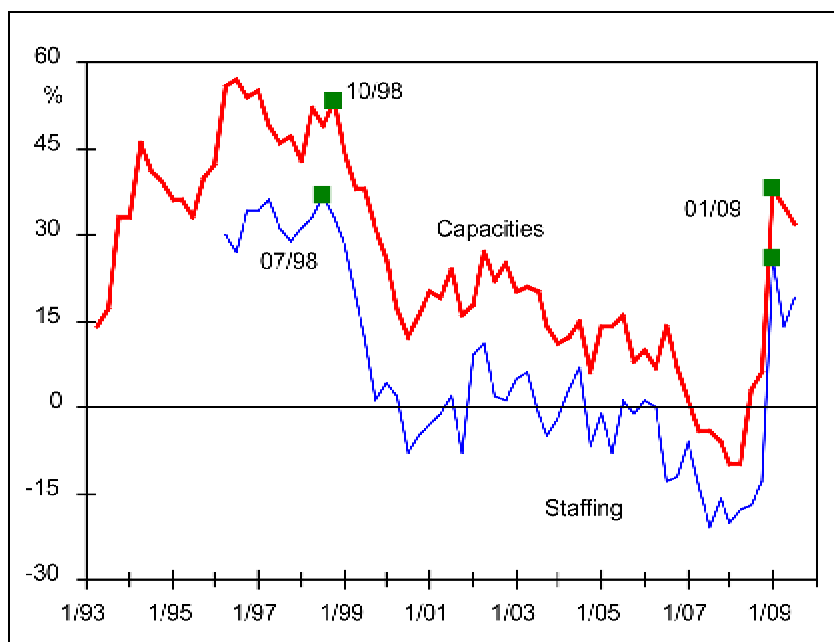


Fig. 15. The balance of Capacity and the Staffing Assessment (balance = "more than enough" - "less than adequate")

In September, sales have continued to recover, which allowed the enterprises to move to the most intense since the beginning of the crisis increase in production and the very moderate reduction in staff. In September, the rate of decline in the demand has declined (after seasonal factors clearance) by 5 points at a time and the result was the best (i.e., the lowest) from August 2008, when, if you look at the dynamics of the IET index of industrial optimism, Russian industry is starting to shift in the crisis pit. As compared with the minimum of the crisis (November 2008), the rate of reduction in demand has improved by September 2009 by 39 points.

Estimates of demand (sales satisfaction) in September have demonstrated the exit of the Russian industry to a new level of the situation understanding (see *Fig. 16*). For the second consecutive month the demand for its products were regarded as normal by a one third of Russian enterprises. Earlier (over previous eight months of crisis) only a one fourth of producers shared that opinion.

The balance of the finished goods inventories assessment from May to September 2009 make +12 points on average and definitely overcame the level of reasonable sufficiency, typical for 2004 - the first six months of 2006, the period of not very high heating of the Russian industry. The share of enterprises with normal stocks of finished products has overcome the level of the said period. Therefore, the companies have coped with the problem of excessive stocks, and stabilization of their estimates demonstrated that they had no desire to work for the warehouses.

The positive dynamics of demand has allowed the companies to move in September 2009 to the most intense since the beginning of the crisis downfall (in September 2008) in the growth of production. Explicit positive changes in September, was manifested all indicators of the actual output growth in the industry. As compared with November 2008 (the peak of the crisis in the dynamics of the output), by September 2009, that indicator has improved by 56 points and

became definitely positive for the first time: an expressed growth started in the industry, according to the businesses estimates.

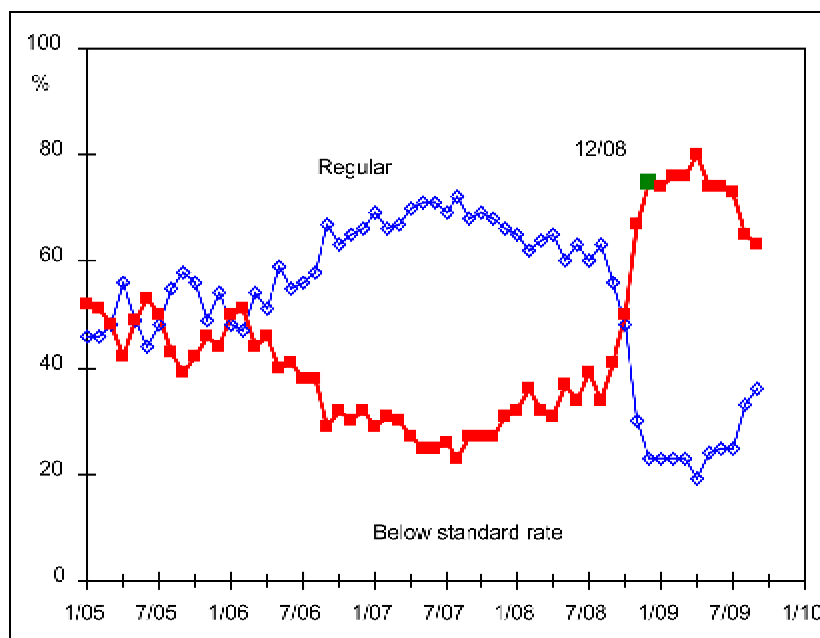


Fig. 16. Dynamics of Effective Demand Growth Assessments

In September, the companies most significantly from February 2009 have adjusted their policies in terms of employment. The intensity of dismissals has been reduced over the month to 9 points and became the most moderate since October 2008. In September, only a quarter of industrial enterprises dismissed their employees, whereas in January 2009, there were more than half of them. The share of reports of recruitment has increased to 12 per cent and became a record peak since July 2008.

In October, the Russian industry has continued to recover from the crisis. There was a positive dynamics in the actual changes in sales, production, employment, stocks assessment of finished.

The demand reduction has slowed down in October (+6 percentage points after seasonal factors clearing) and indicators have reached the level of July - August 2008. Then the demand (and probably, the industry in general) was a step away from the collapse of September - November. Over those three months the rate of change in sales (as per the balance responses of the survey statistics) has lost 50 points. The Russian industry has not faced such a collapse in demand even in the 90-s years of the twentieth century.

It took 11 months to overcome such crisis, which, incidentally, looks very nice, if we recall the gloom forecasts of winter-spring 2009 forecast. The demand estimates, after stabilizing in August - September have been improved in October by 5 points and become positive - for the first time since the crisis start hopes sales were definitely prevailing in the industry.

In October, the growth rate of output after clearance of seasonal factors has increased by another 4 points and made the next crisis record (but with a plus sign): so intensely the output of the Russian industry was not growing since the June 2008 Capacities utilization in industry in the IV quarter increased to 60 per cent and was the highest for the crisis quarters of 2009. In

October, the intensity of dismissals in the Russian industry has continued to decline and as a result became the most moderate since July 2008. Improving this indicator in October as compared with the January crisis value (largely alarmist) amounted to 42 points, and as compared with the more reasonable (i.e., not in so scaring) level of February - 18 points.

Regular access to credits for businesses in October rose to 48 per cent and for the first time during the crisis exceeded the share of businesses estimating credits availability as "below normal". It seems that the banking sector is beginning to believe in the recovery of the Russian industry from the crisis and started to increase its lending, but still under fairly stringent terms. The minimum proposed interest rate was in October, an average of 18 per cent per annum, but it has declined over the month only by 0, 4 percentage points. To small and medium enterprises credits were offered under 19 per cent per annum, with an increase off business scope the rate is decreased to 14-15 per cent per annum.

In November, the progressive dynamics of the main indicators of industry was suspended. The dynamics of demand for the fourth time this year demonstrated the slow-down of a positive trend of recovery from the crisis after undoubtedly positive changes in October. This time, the rate of sales reduction increased by 2 points (in August – by 1 in June - by 3, in March - by 1 point), which is already familiar and more than modest value. Estimates of demand in November, has undergone a significant negative change. Upon clearance from seasonal factors, the rate of anticipated changes in sales showed a decrease (by 4 points) in November for the first time within the previous 6 months.

The growth rate of output, as well as the rate of reduction in demand have changed in November for the worse. Baseline data showed slowing down by 10 points at once and nearly suspended growth of production. The data cleared from seasonal factors showed slowing growth in the output growth by 4 points, but still the growth of production was maintained. The production plans of enterprises declined by 6 percentage points. However, it was the first deterioration in the plans since the crisis beginning in November 2008. Hopes for growth industrial output growth were still large, but there was less confidence. The more intense decline in sales and slower growth in output led in November to an increase in the intensity of dismissals in the industries. The rate of layoffs has increased from -11 to -15. estimates of changes in the number of employees have decreased in November by 9 points and also became worse over the previous three months.

By the end of the crisis year 2009 there formed the new trends in the companies' plans regarding the productivity of workers and in estimates of this factor. The average year data show a lack of positive impact of the crisis on business plans to increase productivity. The share of enterprises, which were planning to change the ratio of output and employment in favor of higher returns during 2009, dropped to 27 per cent. This value fits well the trend established in 2005 and is characterized by a gradual decrease in the intensification of labor in industry. The rapid growth of the economy and escalating shortage of personnel fully explain this trend. But 2009 is the year of crisis, which in the first stage was often compared to the 1998 crisis. Then the share of enterprises intending to change the ratio of production output and employees in favor of increasing productivity, reached a maximum value (40 per cent on average in annual terms and 46 per cent in the I-st quarter of 1998). It would seem that 2009 should provide a similar pressure on the Russian industrial enterprises. But this has not happened. And the reason is obvious - active (sometimes even too much) counteracting of unemployment from the authorities of all levels. Now It is not a secret to anybody that the relevant authority (according

to the size of the enterprise) exerted any pressure to minimize the dismissals of employees. It did not happen In 1998: the companies were left to themselves and were forced to get out of the situation by all means of their own capabilities.

In November 2009 the tendency of enterprises to increase productivity has dropped to historic minimum. Only 16 per cent of industrial enterprises were planned to change the ratio of output and employment, which would lead to increased productivity. Previous anti-record (19 per cent) was recorded back in 1993. The overwhelming majority of producers (74 per cent) had to plan the suspension of the currently existing performance, and everybody is aware of its level t is in Russian industry. The companies were estimating the situation with production output quite adequately. In October 2009, when the optimism of the enterprises has reached the crisis maximum, suddenly (at first glance, of course) there occurred a prevailing dissatisfaction with productivity in the industry. It rose to the level of April, one of the hardest months of the ending year.

In December, companies managed to consolidate the positive results of the previous months, but could not do better. At the end of the year this resulted in the reduced demand, deterioration finished products stocks estimates and growing pessimistic of all estimates before the of All-Russian New Year holidays.

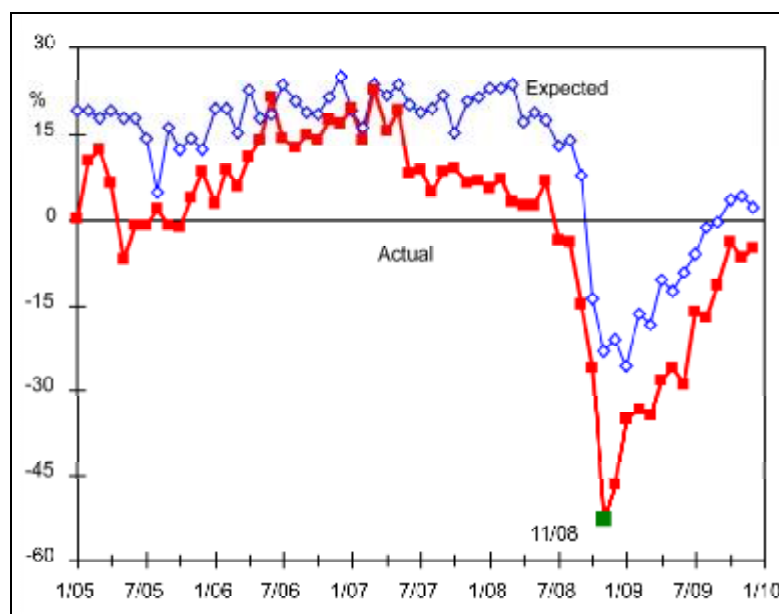


Fig. 17. Changes in effective demand, cleared from seasonal factors
(balance =% growth -% decrease)

The intensity of reduction in demand in December remained at the level of October - November, i.e., the company did not notice any progress in this indicator in the IV quarter of 2009. The demand continued to decline, although not so intensively as in the II or III quarters of the crisis year (see Fig. 17). As a result, sales satisfaction was unable to stay at the new level and returned to the level of August - October, when sales of their products satisfied only one-third of enterprises and two thirds regarded it as "below normal". Estimates of stocks of finished products also returned to the medium indicators (and it is quite normal for a year of crisis), the levels of May - October.

The cleared from seasonal factor data on the dynamics of production showed in late 2009 the sustained rate of growth of output at the average level of +11 b.p. That is, production volume in September – December was growing, and quite explicitly and faster than ever during the current crisis. Companies’ production plans in anticipation of All-Russian New Year holiday were declining for two consecutive months and lost during this time 11 points of optimism upon clearance from seasonal factors. As compared with initial assessments, the loss amounted to 28 points, and as a result, the December balance of output plans for 2009 was the closest to the November-December balance of 2008 (the peak of the current crisis) and worse than all other points of observation since August 1994. Even in August - September 1998 (peak of the previous crisis) the original output plans of businesses were more optimistic. Most likely, now the situation is affected by slow recovery from the crisis in the January holidays.

Positive trends in personnel policy of enterprises, existing in September – November, were suspended at the end of the year. In December, the producers have reported the most intense over 11 months of the year, staff dismissal (January appears to have been a panic exception). Over the last month, the intensity of layoffs in the industry increased by 2 times.

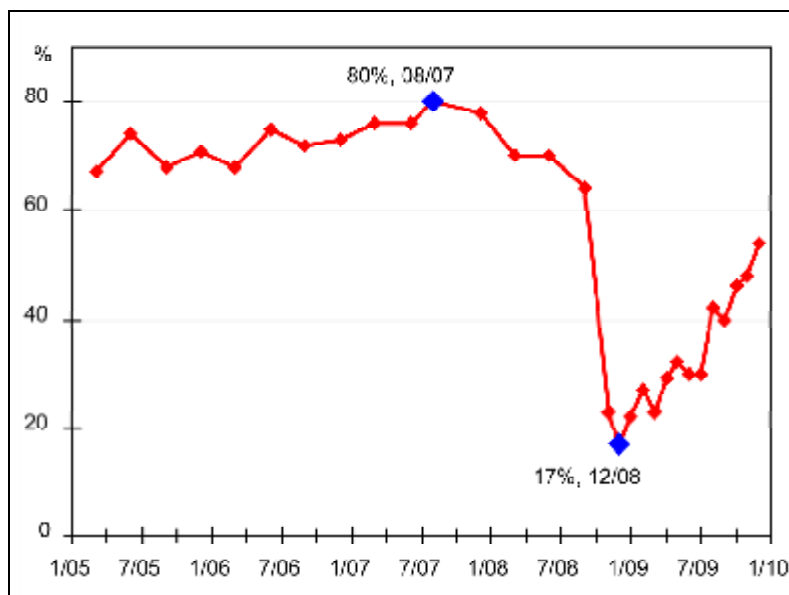


Fig. 18. Share of enterprises with normal access to credits

By the end of the crisis, the normal availability of credits to industrial enterprises increased to 53 per cent, slightly less than the level it reached in pre-crisis September (63 per cent). The crisis minimum (17 per cent, December 2008) has been already exceeded 3-fold (see *Fig 18*). Therefore, the industry crediting was definitely restoring over the year - not, perhaps, as fast as businesses and government wished, but the positive trend is evident.

But in early 2010, Russian industry continued to recover from the crisis. The January sales dynamics and assessment of demand allowed businesses to maintain growth in production and demand estimates, backed up by a portfolio of orders, indicate the formation of the most popular expectations for recovery from the crisis. In January 2010 the industry for the first time during the current crisis, expressed a desire to abandon dismissals and start to employ the personnel.