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The review provides a detailed analysis of main trends in Russia's economy in 2010. The paper contains 6 big sections that highlight single aspects of Russia's economic development: the socio-political context; the monetary and credit spheres; financial sphere; the real sector; social sphere; institutional challenges. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts

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Ekaterina Astafieva, Olga Izryadnova

Macrostructure of Production in Russia in 2010

Main Trends and Factors of Economic Development in 2010

The macroeconomic situation throughout the year 2010 was characterized by an unstable dynamics of its main indices. Growth over the year's first half, which was sustained by the favorable conditions on the world raw materials market, in the second half-year gave way to a slower rate of economic development due to the effect of certain structural features of the domestic market.

While in the first half-year 2010 the reestablished positive dynamics of investments in fixed assets and an increasing retail turnover resulted in an acceleration of the rate of GDP growth, in Q III the dominant factor that was influencing the value of that index was the slowdown of the rate of industrial production growth and the declining volumes of agricultural production. In the first half-year 2010 the value of production index in agriculture amounted to 102.9 %, followed in Q III by a drop by 18.6 % on the same period of 2009. As a result, in Q III 2010 the rate of GDP growth declined to 2.7 % against 5.2 % in Q II and 3.1 % in Q I of the same period of the previous year. Besides, in Q III the situation was further complicated by the diminished effect of the external factors on the dynamics of economic growth.

In Q IV 2010, the impact of the factors created by an expanding investment and consumer demand proved to be sufficiently strong to compensate for the diminished volumes of agricultural output, and so the growth rate of GDP, according to preliminary estimates, rose to nearly 5.2 % on the same period of the previous year. As a result, GDP growth in 2010 amounted to 104 % as compared to the previous year's level.

The structural peculiarities of the rehabilitative growth in 2010 were determined by an accelerated growth of investments in fixed assets (106.1 % against the 2009 level) and retail turnover (104.4 %). The industrial production growth index in 2010 amounted to 108.2 % of its previous year's level, including that for the processing industries – to 111.8 %, for the extracting industries – to 103.6%, and the production and distribution of electric energy, gas and water – to 104.1 %. The agricultural production volume amounted to 88.1 % of its 2009 level. The dynamics of GDP was positively influenced by a rapid revival of exports. As demonstrated by the results of 2010, the physical volumes of exports (as estimated by the methodology based on the system of national accounts (SNA)) rose by 11.1 % on 2009, and so became 5.9 % higher than the level registered in the crisis year (*Table 1*).

The slowdown in the rate of economic growth throughout the year 2008 and the economic decline in 2009 resulted from the simultaneous shrinkage of external and domestic demand. A comparative analysis of the conditions and factors that determined Russia's exit from crisis in 1998 and 2008 has shown that in both cases the determining factor was a favorable change in the external economic situation. From Q II 2009 onwards, alongside the gradual revival on the world raw materials markets and the adaptation of financial and credit institutions to the crisis situation, the rate of economic decline was also gradually becoming less pronounced. The situation in Q IV 2009 and Q I 2010 was determined by a robust growth in exports, and from Q II

2010 – also by the reestablished positive development of the domestic market. When analyzing the influence of the changes and structure of foreign trade turnover throughout the crisis year 2009, one should take into consideration the fact that the decline in the physical volume of exports was rather mild in face of the plummeting volumes of imports. As a result, in 2009 – for the first time after the 1998 crisis – the rate of growth of net exports became positive, and thus produced a positive influence on the macroeconomic indices. In 2010, however, this trend disappeared. The shrinkage in the volume of exports in absolute terms was registered since Q II 2010, and the effects of the foreign trade component in the second half-year became markedly weaker (*Fig. 1*).

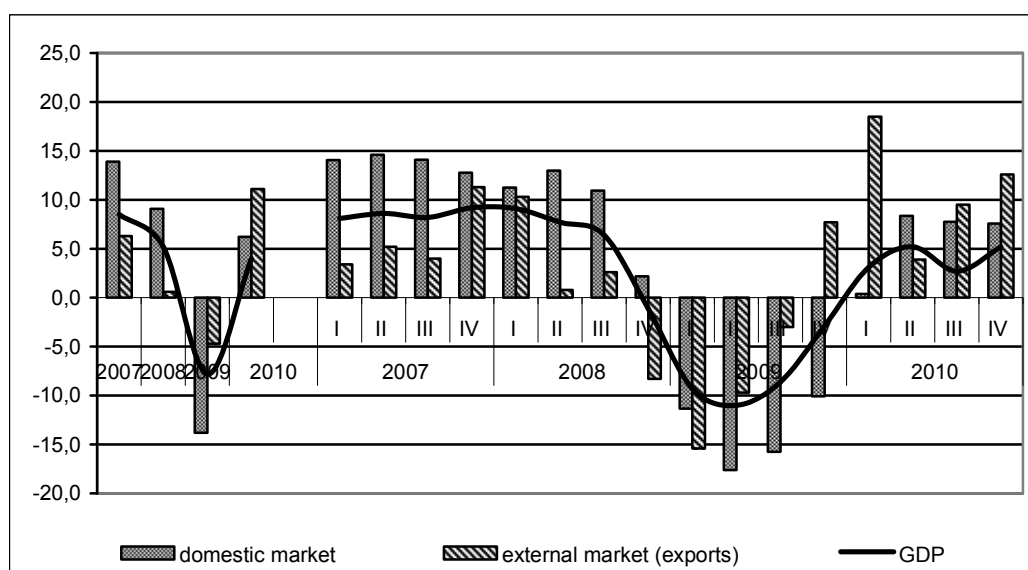
Table 1

**Main Macroeconomic Indices for
2009 – 2010, As % of a Previous Year's Level**

| | 2009 | | | | | 2010 | | | | |
|--|----------------|-------|-------|-------|-------|----------------|-------|-------|-------|--------|
| | Per an- num | Q | | | | Per an- num | Q | | | |
| | | I | II | III | IV | | I | II | III | IV |
| Gross domestic product | 92.1 | 90.7 | 89.0 | 91.4 | 97.1 | 104.0 | 103.1 | 105.2 | 102.7 | 105.0* |
| Investments in fixed assets | 83.8 | 82.7 | 77.2 | 81.8 | 90.6 | 106.1 | 95.9 | 105.3 | 107.2 | 112.8* |
| Housing put in operation | 93.5 | 102.5 | 99.7 | 98.8 | 86.4 | 97.0 | 91.7 | 107.5 | 85.9 | 100.5 |
| Production volume in construction | 84.0 | 80.7 | 80.7 | 82.8 | 89.3 | 99.4 | 91.9 | 99.9 | 102.2 | 105.6 |
| Industrial production volume | 90.7 | 84.5 | 86.4 | 90.4 | 101.8 | 108.2 | 109.5 | 110.9 | 106.4 | 106.5 |
| Extraction of mineral resources | 99.4 | 94.9 | 97.3 | 99.9 | 105.4 | 103.6 | 106.7 | 104.8 | 101.3 | 102.0 |
| Processing industries | 84.8 | 76.1 | 79.3 | 85.0 | 100.0 | 111.8 | 112.1 | 116.3 | 109.5 | 109.9 |
| Production of electric energy, gas and water | 96.1 | 94.9 | 94.5 | 94.0 | 101.4 | 104.1 | 107.7 | 102.6 | 103.9 | 101.6 |
| Agricultural product | 101.2 | 102.3 | 100.8 | 99.0 | 105.2 | 88.1 | 103.6 | 102.3 | 81.4 | 91.8 |
| Cargo turnover in transport | 89.8 | 82.8 | 82.2 | 93.1 | 102.0 | 106.9 | 111.6 | 113.0 | 101.7 | 102.4 |
| Cargo turnover in transport | 95.1 | 100.4 | 94.9 | 91.4 | 94.5 | 104.4 | 101.7 | 105.3 | 105.9 | 104.1 |
| Commercial services to the population | 95.8 | 99.1 | 95.3 | 93.6 | 95.6 | 101.4 | 99.9 | 101.6 | 101.5 | 101.5 |
| Foreign trade turnover | 64.9 | 56.2 | 55.4 | 59.9 | 91.0 | 130.9 | 144.1 | 139.0 | 125.9 | 119.9* |
| Real disposable money incomes | 102.3 | 100.7 | 103.4 | 96.6 | 108.2 | 104.3 | 107.4 | 103.2 | 104.4 | 102.4 |
| Real wages | 96.5 | 99.2 | 96.1 | 94.8 | 99.3 | 104.2 | 103.1 | 106.1 | 105.1 | 102.4 |
| Total number of unemployed | 131.7 | 134.8 | 152.1 | 132.2 | 112.3 | 89.1 | 96.3 | 86.7 | 87.2 | 85.3 |
| Number of unemployed, officially registered | 148.9 | 126.5 | 157.4 | 163.0 | 152.3 | 90.0 | 114.2 | 91.1 | 81.0 | 91.2 |

* Preliminary estimates.

Source: Rosstat.



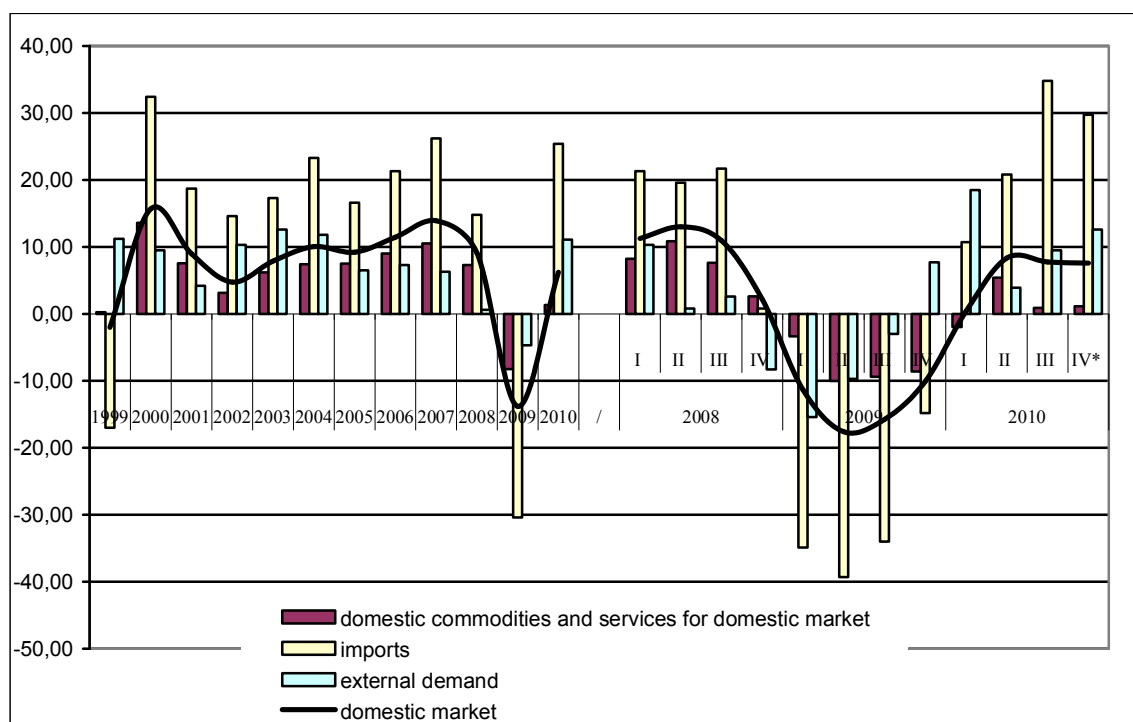
Source: Rosstat.

Fig. 1. GDP Changes, by Domestic and External Demand Components in 2008 – 2010, As % of the Same Quarter of a Previous Year

The specific combination of the rates of domestic and external demand had a decisive effect on the peculiarities of the post-crisis revival observed in 2010.

The initial conditions for the exit from the crisis were marked by a 9.8 % drop, in 2009, of the physical volumes of output displayed by the main types of economic activity on the previous year, and a drop in the volume of imports by 30.4 %. The plummeting volume of imports had a major impact on the dynamics and structure of the domestic market, because since 2005 the Russian economy had been characterized by an upward trend displayed by the share of imports in trade turnover and investment expenditures. The high share of imported commodities was determining an adequate balance of demand and supply also on the investment market. Although the dynamic growth of imports was conducive to the emergence of a competitive environment, the high share of imports in retail turnover and in the volume of investments in machinery, equipment and means of transportations was increasing the dependence of the domestic market's balance of commodity resources on the changes in the foreign economic situation. The simultaneous large-scale decline in the volumes of domestic production and imports in the crisis years 2008 – 2009 was determining the specificity of the structural changes that occurred on the domestic market. Early on in the crisis, the cumulative effects of the shrinking demand, declining incomes of enterprises and the population alike, and the drop in the ruble's exchange rate resulted in a strengthened position of Russian producers on the domestic market. However, in contrast to the period of 1999 – 2000, no leap in the level of domestic production occurred this time, because while in 1999 – 2000 the positive changes in domestic production resulted from an active involvement of idle competitive capacities and an accelerating rate of investments in fixed assets, the main factor that determined the improved situation on the domestic market in the first half-year 2009 was the availability of accumulated finished products.

The macroeconomic situation started to change from the second half-year 2009, when the rate of economic decline began to slow down in response to the gradual rebound of the foreign market and the revival production in the extracting sector of industry. In Q I 2010 the trend toward stabilization on the domestic market strengthened due to the reestablished positive dynamics of domestic production and imports. However, alongside a very slow revival of domestic production of commodities and services for the domestic market, since early 2010 an expansion of imports has been registered. While growth on the domestic market amounts to 6.2 %, and that of imports – to 25.4 %, the growth of domestic production of commodities and services for domestic consumption is estimated to be at the level of 1.3 %, and that for the foreign market – at the level of 11.1 %. The end of the 1998 crisis was characterized by stabilization, in 1999, of domestic production for the domestic market in face of a remaining downward trend displayed by the level of imports. In the period of 2000 – 2007, the rate of domestic production of commodities and services was persistently increasing, while at the same time, in terms of average per annum growth rate (which amounted to 107.3 %), it was lagging behind both imports (119.7 %) and exports (108.4 %) (*Fig. 2*).



* preliminary estimates.

Source: Rosstat.

Fig. 2. Changes in the Growth Rate of Domestic Demand in 1999 – 2010, by Component, As % of the Same Period of a Previous Year

As the influence of imports on the domestic market became stronger in 2009 – 2010, it caused some negative shifts in the overall supply structure where the share of imports in investment commodities was rapidly shrinking against the backdrop of a reorientation toward the other two types of commodities intended to satisfy consumer and intermediate demand (*Table 2*).

Table 2

Shares of Consumer, Intermediate and Investment Commodities in the Russian Federation's Total Imports (Based on Balance of Payments), as % of Result

| | Type of commodity | | |
|-------------|-------------------|------------|--------------|
| | Consumer | Investment | Intermediate |
| 2008 | | | |
| Q I | 45.0 | 22.6 | 32.4 |
| Q II | 41.3 | 23.9 | 34.8 |
| Q III | 43.6 | 24.2 | 32.2 |
| Q IV | 37.8 | 24.4 | 37.8 |
| Per annum | 41.8 | 23.8 | 34.4 |
| 2009 | | | |
| Q I | 46.8 | 18.6 | 34.9 |
| Q II | 44.0 | 18.1 | 38.4 |
| Q III | 42.9 | 20.6 | 36.5 |
| Q IV | 43.9 | 19.5 | 36.6 |
| Per annum | 44.3 | 19.7 | 36.0 |
| 2010 | | | |
| Q I | 43.5 | 16.8 | 39.7 |
| Q II | 39.5 | 18.7 | 41.8 |
| Q III | 42.1 | 19.8 | 38.1 |

Source: Rosstat.

The emergence of this trend was followed by an increasing share of imports in the retail commodity resources. The opposite trend observed in 2009, when the share of imports in retail commodities was shrinking, had disappeared. Thus, the share of imports throughout 2010 was systematically increasing, having achieved by Q III the level of 47 % (Table 3).

Table 3

Structure of Retail Commodity Resources in 2009 - 2010, %

| | Retail commodity resources | Including | |
|-------------|----------------------------|---------------------|---------------------|
| | | Domestic production | Domestic production |
| 2009 | | | |
| Q I | 100 | 55 | 45 |
| Q II | 100 | 60 | 40 |
| Q III | 100 | 59 | 41 |
| Q IV | 100 | 61 | 39 |
| Year | 100 | 59 | 41 |
| 2010 | | | |
| Q I | 100 | 56 | 44 |
| Q II | 100 | 58 | 42 |
| Q III | 100 | 53 | 47 |

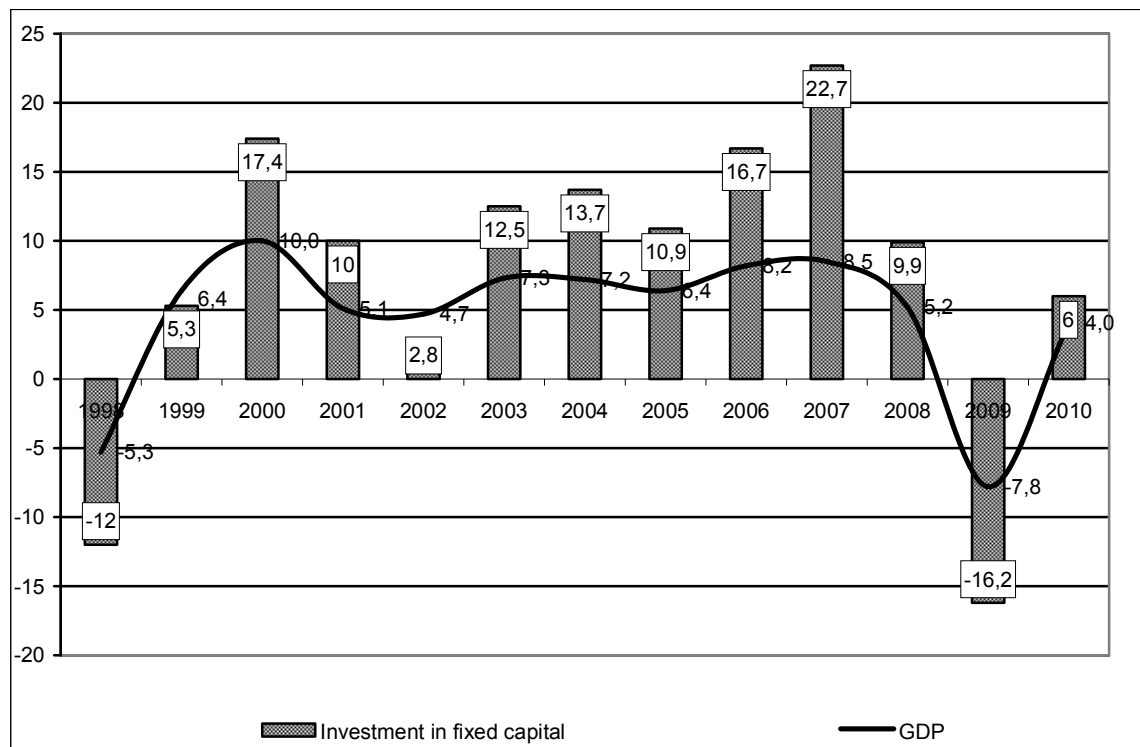
Source: Rosstat.

An analysis of the dynamics of economic development broken down by component of external and domestic demand can serve as an illustration of its very high dependence on foreign trade. Lack of any significant structural changes, the development by inertia of both exports-oriented and end-demand production (based on extensive use of basic factors), and a high share of imports in the resources available on the domestic market were determining the low competitive capacity of the Russian economy in conditions of the post-crisis rehabilitative growth in 2010.

Main Characteristics of the Use of GDP

The year 2009 saw a reversal of the formerly upward trend in the growth of investments (which could be observed throughout the entire period of 2000 – 2008), and so, for the first time since the 1998 crisis, a decline in the rate of investments in fixed assets was recorded that was much more rapid than the changes observed in the dynamics of GDP. Over the year 2010, the rate of investments in fixed assets was initially, in Q I, determined by the effect of the previous year's factors. From Q II 2010 onwards, the value of this index became positive, while the rate of quarterly growth began to accelerate. By the end of 2010, the rate of growth displayed by investments in fixed assets amounted to 106.0 %, which is by 2 p.p. higher than the rate of GDP growth. However, when estimating the significance of that index, one should take into consideration the low base provided by its level recorded in 2009, when the decline of investments in fixed assets amounted to 16.2 % and was much more pronounced than in the crisis year 1998. As a result, in 2009 the index of investments in fixed assets amounted to 88.8 %, and that of GDP – to 95.9 % of the 2008 level (Fig. 3).

Against the backdrop of a global crisis and the dwindling incomes of the national economy, from late 2008 onwards there occurred a change in the gross national savings to end consumption ratio. As demonstrated by the results of the year 2009, the share of gross savings in GDP fell to 24.3 %, which is comparable to the value of that index recorded in the crisis year 1998. In 2010, the share of savings in GDP increased to 28.0 %, while remaining well below the average level recorded in the period of 2004 – 2008 (33.4 %).



Source: Rosstat.

Fig. 3. Changes in Dynamics of GDP and Investment in Fixed Assets in 1998 – 2010, As % of the Previous Year

In face of the then existing situation on the market for capital and savings resources, the share of investments in fixed assets in GDP in 2009 dropped 19.4 % by comparison with the last decade’s historic high of its average value of 20.7 % (recorded in 2007 – 2008). However, in 2010 the share in GDP of investments in fixed assets climbed to 20.5 % due to the strengthening trend towards savings’ transformation (Table 4).

Table 4

Shares in GDP of Gross Savings, Total Accumulation and Investments in Fixed Assets in 1998 – 2010, as % of Result

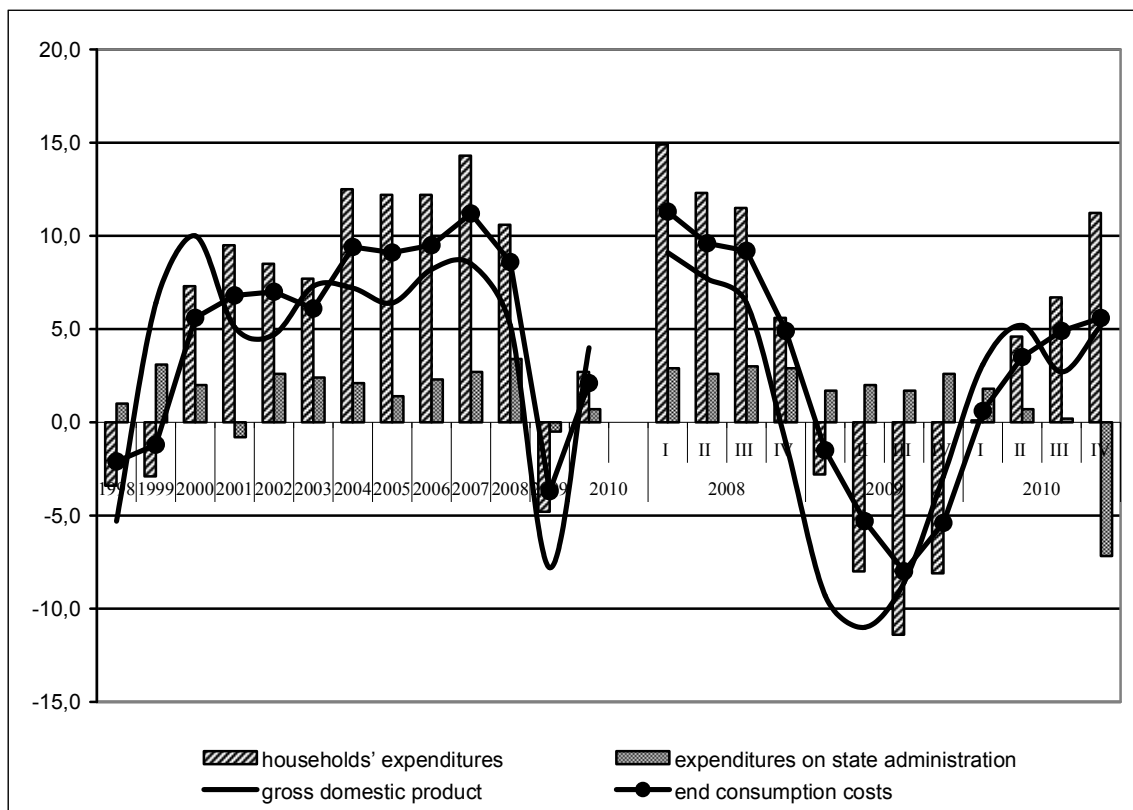
| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Gross savings | 23.8 | 31.9 | 38.7 | 34.2 | 30.8 | 31.4 | 32.6 | 33.2 | 33.8 | 33.9 | 33.3 | 24.3 | 28.0 |
| Total accumulation | 15.0 | 14.8 | 18.7 | 21.9 | 20.1 | 20.9 | 20.9 | 20.1 | 21.2 | 24.2 | 25.5 | 18.9 | 21.8 |
| Including: | | | | | | | | | | | | | |
| total accumulation of fixed assets | 16.2 | 14.4 | 16.9 | 18.9 | 17.9 | 18.4 | 18.4 | 17.8 | 18.5 | 21.0 | 22.3 | 22.0 | 21.0 |
| Investments in fixed assets | 15.5 | 13.9 | 15.9 | 16.8 | 16.3 | 16.6 | 16.8 | 16.7 | 17.6 | 20.2 | 21.3 | 19.4 | 20.5 |

Source: Rosstat.

The dynamic growth of end consumption sustained by increasing real incomes of the population was one of the main factors that determined the upward development of the Russian economy over the period of 2000 – 2008. While households’ end consumption over that period

increased 1.91 times, the population's real incomes rose 2.23 times, real wages – 2.85 times, and the real size of allocated pensions – 2.22 times.

The 2009 crisis had a painful effect on the population's living standards and resulted in a deeper downfall relative to the previous period than that during the 1998 crisis. While the rate of growth of the population's real incomes in 2009 was at the level of 1.9 %, that of end consumption dropped on 2008 by 5.4 %, including end consumption by households – by 8.9 %. It should be noted that the changes occurring in the index of households' consumption was significantly influenced by the decline of real wages by 3.5 % by comparison with the 2008 level, while the growth rate of wages in nominal terms displayed its historic low since 1998 – 7.8 %.



Source: Rosstat.

Fig. 4. Changes in End Consumption Costs in GDP by Component in 1998–2010 and by Quarter in 2008–2010, as % of Relevant Period

In 2010, the main indices describing the population's living standards acquired positive values, but one should bear in mind when estimating those values the effect of the low baseline provided by the previous year's level. Judging by the results of the year 2010, the cost of end consumption relative to the previous year's level rose by 2.1 %, including that by households – by 2.7 %, but the corresponding values actually amounted to only 98.7 % and 97.8 % of the 2008 index. The growth of real incomes of the population in 2010 amounted to 4.1 % as compared to the previous year's rate and to 6.4 % as compared to 2008 (over the period of 2004–2008 the average per annum growth rate was 13.4 %). The specific features of the formation of the population's incomes were determined by the accelerating growth of social benefits allo-

cated within the framework of the government programs aimed at sustaining the population's living standards. Within the structure of the population's incomes the share of social benefits rose from 13.2 % in 2008 to 14.9 % in 2009 and to 18.0 % in 2010. The average size of allocated pensions over the period of 2009 – 2010 increased 1.78 times (in real terms – 1.5 times). Changes in the size of wages took a milder character. The growth of real wages in 2010 by 4.2 %, however, made it possible to neutralize the negative trends of the previous year and to achieve the 2008 level.

In 2010, retail turnover rose by 4.4 %, including that of foodstuffs – by 5.1 %, and that of nonfood commodities – by 3.8 %.

The consumer price index in 2010 amounted to 108.8 %, thus remaining at the previous year's level. At the same time, the prices of foodstuffs rose to 112.9 % against 106.1 % in 2009, and those of nonfood commodities – to 105.0 % against 109.7 % (Fig. 4).

Changes in the Structure of GDP, by Source of Income

A dynamic growth of the population's incomes represents one of the typical features of economic growth in the Russian economy. The activity on the domestic market is sustained by growth of real wages and is associated with redistribution of incomes from companies to the population. The share of wages in GDP rose to 52.8 % in 2009 and to 50.2 % in 2010 against its mean index of 46.1 % recorded over the period of 2002 – 2008 (Table 5).

Table 5

**Structure of GDP Formation, by Source of Income
in 2008 – 2009, as % of Result, in Current Prices**

| | 2008 | | 2009 | | | | 2010 | | | | |
|---|-----------|-----------|------|------|------|------|-----------|------|------|------|------|
| | Per annum | Per annum | Q | | | | Per annum | Q | | | |
| | | | I | II | III | IV | | I | II | III | IV |
| Gross domestic product | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Including: | | | | | | | | | | | |
| Wages of hired labor, including hidden remuneration and mixed incomes | 46.7 | 52.8 | 56.9 | 53.3 | 47.9 | 50.1 | 50.2 | 52.1 | 50.1 | 48.1 | 50.8 |
| Net taxes on production and imports | 19.2 | 16.7 | 14.3 | 15.6 | 17.4 | 17.8 | 18.1 | 17.5 | 18.4 | 17.0 | 19.1 |
| Gross profit in the economy and gross mixed incomes | 34.1 | 30.5 | 28.8 | 31.1 | 34.7 | 32.1 | 31.7 | 30.4 | 31.5 | 34.9 | 30.1 |

Source: Rosstat.

Within the structure of employed population the share of persons who were not working under employment contracts constituted only 8 %; these are employers who employ labor force at their own enterprises on a permanent basis; and self-employed persons. This phenomenon determined the specificity of the formation of the structure of GDP incomes and the population's incomes. More than 66 % of the population's incomes in 2010 was formed by wages paid to the employed, while the share of incomes from entrepreneurial activity and property was shrinking.

A typical feature of Russia's national economy has become a high degree of differentiation of mean wages by type of economic activity. In industry, the degree of differentiation of wages is determined by an increasing gap between the levels of wages in the extracting and processing

industries. In 2010, the amount of wages charges in nominal terms in the sector of extraction of mineral resources was 1.8 times higher than the average level of wages across the entire economy, including in the sector of fuel extraction by 2.2 times. Wages in the processing industries amounted to 90 % of the economy's average and 45 % of the index recorded in the extracting industries. The mean value of the index of charged wages was exceeded 2.3 times in the sectors associated with the production of petroleum products and transportation of mineral fuel and energy resources, as well as in the financial sector. In the spheres of education and public health care wages dropped to 66 – 76 % of the economy's average. The specific forms of remuneration depending on types of economic activity had a significant influence on the structure of incomes and expenditures, on the population's consumer demand, on the type of employment and the distribution of labor resources across the economy.

The level and share of remuneration received by hired labor in the structure of GDP had a dominating effect on the social parameters, including the labor market. In the crisis conditions of 2009 the number of the employed in the economy dropped to 69.4 mln persons against 70.9 mln persons in 2008, resulting in a climb of the rate of total unemployment to 8.4 % against 6.4 %.

The year 2010 saw a continuation of the implementation of anti-crisis measures aimed at supporting the labor market. A total of 39.5 bn Rb was allocated from the federal budget to subsidies granted to the budgets of subjects of the Russian Federation so that they could lower the level of tension on their labor markets within the framework of regional programs. In 2010, as compared to 2009, the number of employed in the economy rose by 0.4 mln, thus amounting to 69.8 mln persons. The level of unemployment, as demonstrated by the results of the year 2010, dropped to 7.5 % against 8.4 % one year earlier, while the overall number of unemployed (as estimated by the ILO methodology) amounted to 5.6 mln against 6.3 mln in 2009. The number of unemployed who were officially registered with government employment agencies slid to 2.2 mln, while the level of registered unemployment became 2.5 % against 3.0 % in early 2010. The improvement of the general situation in the national economy was associated with a stable downward trend displayed by the number of those employed persons who worked part-time, were kept on leave or idle – their number decreased from 1.6 mln in January 2010 to 0.9 mln in November 2010.

The tension coefficient (the number of unemployed persons registered with government employment agencies per 100 vacancies) between January and November 2010 decreased from 310.6 to 177.3 (*Table 6*).

Table 6

Dynamics of the Main Labor Market Indicators in 2009 – 2010

| | 2009 | Q | | | | 2010 | Q | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | I | II | III | IV | | I | II | III | IV |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Number of employed in national economy, mln | 69.4 | 68.2 | 69.4 | 70.4 | 69.5 | 69.8 | 68.0 | 70.0 | 71.1 | 70.1 |
| Number of unemployed, mln | 6.3 | 6.8 | 6.5 | 6.0 | 6.0 | 5.6 | 6.6 | 5.6 | 5.2 | 5.2 |
| Level of unemployment, as % of economically active population | 8.4 | 9.1 | 8.6 | 7.8 | 8.0 | 8.8 | 8.8 | 7.4 | 6.8 | 6.9 |
| Number of unemployed, registered with government employment service, mln | 2.1 | 2.0 | 2.2 | 2.1 | 2.1 | 2.2 | 2.2 | 2.0 | 1.7 | 1.5 |
| Level of registered unemployment, as % of economically active population | 2.8 | 2.6 | 2.8 | 2.7 | 2.7 | 2.5 | 3.0 | 2.7 | 2.2 | 2.1 |
| Average monthly wages of organizations' employees, in nominal terms, Rb | 18,785 | 17,441 | 18,419 | 18,673 | 20,626 | 21,090 | 19,485 | 20,809 | 21,031 | 23,045 |

Table 6 (continued)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| as % of relevant period of previous year | | | | | | | | | | |
| Number of employed in national economy | 97.8 | 97.7 | 97.1 | 97.9 | 98.7 | 100.6 | 99.6 | 101.0 | 101.0 | 100.9 |
| Number of unemployed | 131.1 | 134.8 | 152.1 | 132.2 | 112.0 | 89.1 | 96.3 | 86.7 | 87.2 | 85.2 |
| Number of unemployed, registered with government employment service, mln | 148.0 | 126.5 | 157.4 | 163.0 | 153.2 | 90.0 | 114.2 | 91.1 | 81.0 | 74.9 |
| Average monthly wages of organizations' employees, in nominal terms | 108.5 | 112.8 | 108.0 | 105.7 | 108.1 | 111.3 | 110.5 | 112.4 | 111.6 | 110.7 |
| Average monthly wages in real terms | 97.2 | 99.2 | 96.1 | 94.8 | 99.0 | 104.2 | 103.1 | 106.1 | 105.1 | 102.4 |

Source: Rosstat.

It is noteworthy that, while in the period of 2000 – 2008 changes in the demand for labor were determined by a shift in employment towards the services sector, during the 2009 crisis the most critical situation was observed in trade, as well as in industry and construction. In recent years employment was on the decline in nearly all the branches of industry, with the most rapid rates of decline in the processing industries. If in 2008 the number of employed in the processing industries dropped on 2004 by 596 thousand, and in the extraction of mineral resources sector – by 44 thousand, in 2009 the drop on the previous year in the average per annum number of employed amounted to 806 thousand and 44 thousand respectively. The formation of that trend occurred against the backdrop of a declining growth rate of labor productivity (*Table 7*).

Table 7

Changes in Labor Productivity in the National Economy of the Russian Federation, as % of Previous Year

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|--|-------|-------|-------|-------|-------|-------|-------|
| On the whole, across national economy | 107.0 | 106.5 | 105.5 | 107.5 | 107.5 | 104.8 | 95.8 |
| Including: | | | | | | | |
| Agriculture, hunting and forestry | 105.6 | 102.9 | 101.8 | 104.3 | 105.0 | 110.7 | 105.0 |
| Fishery and fish-breeding | 102.1 | 104.3 | 96.5 | 101.6 | 103.2 | 95.5 | 109.2 |
| Extraction of mineral resources | 109.2 | 107.3 | 106.3 | 103.3 | 103.1 | 101.0 | 107.5 |
| Processing industries | 108.8 | 109.8 | 106.0 | 108.5 | 108.4 | 102.6 | 96.1 |
| Production and distribution of electric energy, gas and water | 103.7 | 100.7 | 103.7 | 101.9 | 97.5 | 102.1 | 96.3 |
| Construction | 105.3 | 106.8 | 105.9 | 115.8 | 112.8 | 109.1 | 91.4 |
| Wholesale and retail trade | 109.8 | 110.5 | 105.1 | 110.8 | 104.8 | 108.1 | 92.1 |
| Hotels and restaurants | 100.3 | 103.1 | 108.5 | 109.2 | 108.0 | 109.2 | 87.1 |
| Transport and communications | 107.5 | 108.7 | 102.1 | 110.7 | 107.5 | 106.5 | 100.1 |
| Operations with immovable property, lease and related services | 102.5 | 101.3 | 112.4 | 106.2 | 117.1 | 107.9 | 96.7 |
| For reference: real wages | 110.9 | 110.6 | 112.6 | 113.3 | 117.2 | 111.5 | 96.5 |

Source: Rosstat.

The low effect of the use of production factors was one of the main causes of the decline in the Russian economy's competitive capacity. A negative influence on the qualitative indices of economic development was exerted by the considerable gap between the rate of labor productivity and the level of remuneration in favor of the latter, which was visible across the entire economy even in crisis conditions. However, opportunities for any further growth in the level of remuneration became rather severely restricted as a result of a changed competitive environment on the commodity markets due to the strengthening of the ruble and a similarly increasing pressure of imports.

A comparison between changes in the indices of the population's employment rate, remuneration level and GDP has demonstrated that an accelerated growth of wages against a slower

growth of labor productivity increased the load on the economy and was reflected in the results of financial activity.

Positive changes in the economy improved the financial status of businesses. As shown by operative data, in January – September 2010 they achieved a positive aggregate financial result in the amount of 4,305.5 bn Rb, which is by 51.7 % higher than the same index for the previous year. However, despite the presence of some positive trends, the pre-crisis rate of return indices have not yet been achieved for the entire national economy. The rate of return on sold commodities, products and work, as seen by the results of January – September 2010, was 11.6 %. Production decline and other manifestations of the crisis had different implications depending on the type of activity, and so development in 2010 was uneven and had certain specificities. The most profitable type of activity in January – September 2010 remained the extraction of mineral resources.

The favorable situation on the world market for energy carriers make it possible for the companies operating in that sector to receive, in January – September 2010, an aggregate positive financial result in the amount of 959.4 bn Rb, which is by 45 % higher than the same index for the previous year. The financial situation of the businesses operating in the processing industries also improved: as seen by the outcome of the period of January – September 2010, their aggregate financial result was 1,134.6 bn Rb, which is by 59.7 % higher than the previous year's level.

Due to instability of the business activity in the construction sector, the aggregate financial result for January – September amounted to 49.7 bn Rb, or only 80.7 % of the value of the same index for 2009.

Last year's anomalous climatic situation had a negative effect on agricultural output and, consequently, on the financial results achieved by the organizations operating in that sector. The aggregate financial result for the period of January – September in agriculture amounted to 54.9 bn Rb, which is by 12.5 % below the value of the same index for 2009. At the same time, the losses incurred by agricultural organizations rose by 84 % on January – September 2009 (*Table 8*).

According to our decomposition¹ of quarterly indices (*Table 9, Fig. 5*), in 2009 – 2010 the rate of GDP growth increased on the average by 29 % due to changes in labor input, but the contribution of that component during the period under consideration was shrinking (from 41.8 % in Q I 2009 to 30.5 % in Q III 2010). A more substantial contribution to the rate of GDP growth was made by changes in the volume of capital input in the process of production, which on the average accounted for 54 % of growth.

By comparison with the previous years the first two quarters of 2009 were marked by certain shifts in the structure of GDP growth, namely a declining contribution of capital input with a simultaneously increasing contribution of labor input. These structural changes reflected the way in which the crisis phenomena in the economy were influencing the behavioral strategies of producers who, while adjusting to new economic conditions, tend to apply a more flexible instrument – labor input management. Beginning from the second half-year 2009, there occurred a revival of the previously existing structure of output growth (typical of the pre-crisis period), which is characterized by a considerably larger contribution of capital input than that of labor input.

¹ For more details concerning our methodology, see *Faktory ekonomicheskogo rosta. Nauchnye trudy N 70*. [Factors of Economic Growth. Scientific Works No 70.] M. IET, 2003. www.iet.ru

Table 8

**Rate of Return on Commodities, Products, Work, Services and Assets Sold
by Organizations, by Type of Economic Activity, in January – September
2008 – 2010, as %**

| | Return on sold commodities, products, work, services | | | Return on assets | | | For reference | | |
|--|--|------|------|------------------|------|------|--|-----------------------|---------------------------------|
| | | | | | | | January – September 2010 to January – September 2009 | | September 2010 to December 2009 |
| | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | rate of financial result | physical volume index | price indices |
| Total | 15.8 | 11.2 | 11.6 | 6.8 | 3.8 | 5.1 | 152.6 | 104.8 | |
| Including: | 15.0 | 11.4 | 12.2 | 4.5 | 2.9 | 2.5 | 90.7 | 89.3 | 108.3 |
| agriculture, hunting and forestry | | | | | | | | | |
| fishery and fish-breeding | 10.7 | 25.9 | 25.0 | 4.8 | 13.0 | 12.5 | 121.5 | 90.0 | |
| extraction of mineral resources | 36.2 | 31.3 | 32.8 | 14.6 | 8.5 | 10.4 | 145.0 | 104.2 | 101.8 |
| processing industries | 20.6 | 12.3 | 14.4 | 12.1 | 3.9 | 6.0 | 159.7 | 112.6 | 110.5 |
| production and distribution of electric energy, gas and water | 3.6 | 7.3 | 6.9 | 0.6 | 2.9 | 3.6 | 140.7 | 105.1 | 113.6 |
| construction | 5.6 | 5.0 | 4.1 | 2.6 | 1.5 | 1.2 | 80.9 | 99.2 | 107.3 |
| wholesale and retail trade; repair of motor vehicles, motorcycles, household appliances and personal items | 11.3 | 7.0 | 8.3 | 7.0 | 3.6 | 5.7 | 169.9 | 104.4 | 106.2 |
| transport and communications | 16.4 | 15.8 | 15.0 | 5.0 | 3.9 | 3.7 | 115.8 | | 145.0 |

Source: Rosstat.

The main factor determining the dynamics in rate of output growth in 2009 was TFP (total factor productivity), whose changes can on the average account for 73 % of the rate growth; in 2010 the contribution of that component in the majority of periods was negative.

The negative changes in labor input resulting from the financial crisis first appeared in late 2008 and then persisted in the dynamics of economic indices in 2009 – the year that saw the shrinkage of both the number of employed and their working time. In 2010, the rate of growth demonstrated by labor input was positive (0.8 % in Q I; 1.4 % in Q II; and 0.8 % in Q III), but nevertheless it was far behind the rate of decline observed over the previous year, so that the newly achieved level of labor reserves and the intensity of their use was lower than the corresponding indices recorded in 2007 – 2008.

The structure of labor input in the period under consideration was uneven, which reflected the economic instability on the labor market. In Q I 2009 the shrinkage of labor input was largely determined by the shorter working hours, the contribution of that component to the rate of GDP growth was nearly twice as high as the rate of output growth, which in its turn was determined by the declining number of employed. In Q II the slowdown in the rate of shrinkage of working hours was accompanied by a more rapid downslide in the number of employed, so in that period the contribution of both these components of labor input was practically the same. From Q III onwards the rate of decline demonstrated by labor reserves and the intensity of their use became slower, but this process was more rapid with regard to the latter component. As a result, in the second half-year 2009 the most significant component of labor input that determined its contribution to the rate of GDP growth was the dynamics of labor reserves. In the first two quarters of 2010, manipulating the length of working hours once again became the main instrument of adapting the labor market to changes in the market situation: in Q I the shift of the rate of labor input growth towards positive values occurred exclusively due to longer working hours against the backdrop of the continuing shrinkage of the

number of employed; in Q II, although the number of employed also began to increase, the intensity of the use of labor reserves remained the dominant factor that was determining the amount of input labor. In Q III, labor reserves were increasing at a somewhat higher rate than the intensity of their use.

Table 9

**Structure of the Rate of GDP Growth
(as Compared to the Same Period of Previous Year)¹**

| | Q I 2009 | Q II 2009 | Q III 2009 | Q IV 2009 | Q I 2010 | Q II 2010 | III quarter 2010 |
|-------------------------------------|----------|-----------|------------|-----------|----------|-----------|------------------|
| Growth rate | | | | | | | |
| GDP | -9.3 | -11.0 | -8.6 | -2.9 | 3.1 | 5.2 | 2.7 |
| I. Factor inputs | -4.9 | -4.2 | -4.2 | 1.0 | 5.0 | 5.0 | 5.7 |
| I.1. Labor | -3.9 | -3.0 | -1.9 | -0.8 | 0.8 | 1.4 | 0.8 |
| Employment | -1.3 | -1.5 | -1.0 | -0.7 | -0.2 | 0.5 | 0.4 |
| Working hours | -2.6 | -1.5 | -0.9 | -0.1 | 1.0 | 0.9 | 0.4 |
| I.2. Capital | -1.0 | -1.2 | -2.3 | 1.7 | 4.2 | 3.7 | 4.9 |
| Fixed assets | 1.4 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.7 |
| Use of production capacities * | -2.4 | -2.7 | -3.9 | 0.2 | 2.7 | 2.2 | 3.2 |
| II. TFP | -4.4 | -6.8 | -4.4 | -3.9 | -1.8 | 0.2 | -3.0 |
| as % of rate GDP growth rate | | | | | | | |
| GDP | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| I. Factor inputs | 52.6 | 38.3 | 49.0 | -32.7 | 158.6 | 97.1 | 211.6 |
| I.1. Labor | 41.8 | 27.7 | 22.5 | 26.2 | 24.7 | 26.6 | 30.5 |
| Employment | 14.3 | 14.0 | 11.7 | 22.5 | -6.5 | 9.3 | 16.0 |
| Working hours | 27.5 | 13.7 | 10.8 | 3.7 | 31.2 | 17.4 | 14.5 |
| I.2. Capital | 10.8 | 10.7 | 26.5 | -59.0 | 133.9 | 70.4 | 181.0 |
| Fixed assets | -15.4 | -13.7 | -18.8 | -51.6 | 46.4 | 29.0 | 61.4 |
| Use of production capacities | 26.1 | 24.3 | 45.3 | -7.3 | 87.6 | 41.5 | 119.6 |
| II. TFP | 47.4 | 61.7 | 51.0 | 132.7 | -58.6 | 2.9 | -111.6 |

* The estimates of the changes of the use of production capacities across the national economy are based on the data on the volume of the actually consumed electric energy.

Similarly to the situation with regard to labor cost, the manifestation of the crisis phenomena in the economy was the presence, in the overall dynamics of the capital input index, of a period during which the value of that index was on the decline. However, the duration of the period itself was shorter: instead of late 2008, it began in Q I 2009, while the shift of the capital input growth rate towards positive values was observed as early as Q IV of the same year.

In the first half-year 2009, the contribution of capital input to the rate of GDP growth amounted to almost one-third of that of labor input; in Q III, the contributions of these two components became equal. In Q IV 2009, capital inputs remained the sole factor that had a negative impact on the rate of GDP growth, i.e., it was the only index whose value was demonstrating growth in face of shrinking output. In 2010, capital inputs were growing at an accelerated rate as compared to GDP, which explains the dominant role of that component in the structure of output growth.

In 2009 – 2010, the main factor determining the character and direction of the changes displayed by capital inputs in the first three quarters of 2009 was the volatile intensity of the use

¹ The deviation from the previously published results occurred due to changes in the data published by *Rosstat*.

of industrial production capacities. The rate of growth in the intensity of the use of capital inputs demonstrated a decline in January – September 2009, which then gave way to an upward trend from Q IV onwards. The mean quarterly growth rate over that period was 0.9 p.p. (in accordance with linear trend – by 1.2 p.p.¹).

The rate of growth of capital reserves remained positive throughout the entire period under consideration, although when broken up by quarter it demonstrated a slight decline – from 3.3 % in Q I 2009 to 3.0 % in Q III 2010. In accordance with our estimation methodology,² changes in capital reserves are determined by the changing volume of investments in fixed assets, whose the rate of growth remained negative until Q II 2010. At the same time, in spite of the growth of investments observed in Q II and III 2010, their volume in real terms remained not only below the 2008 level, but also below that of 2007. Thus, the declining amount of funds allocated to renewal and restoration of fixed assets, with due regard for the significant degree of their depreciation, resulted in a quarterly decline of the growth rate of capital reserves by 0.05 p.p.

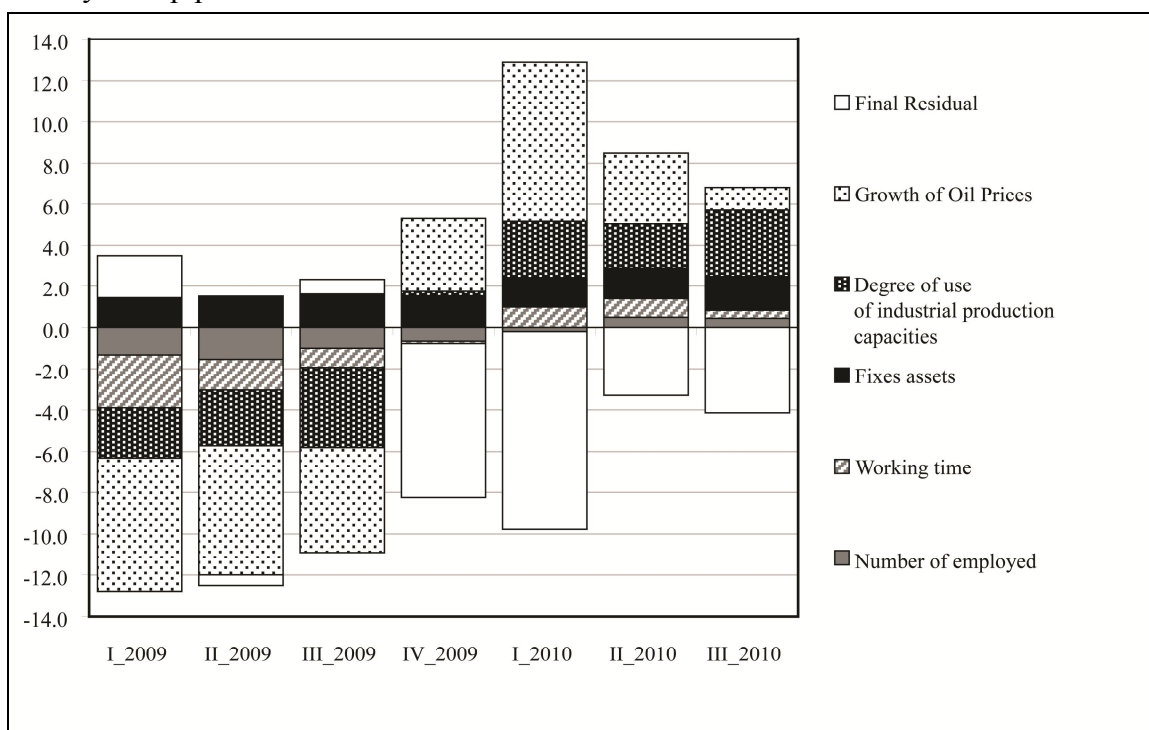


Fig. 5. By Factor Decomposition of GDP Growth (as Compared with the Same Period of Previous Year), with Estimates of the Effect of Oil Prices

The contribution of unexplained residual (total factor productivity) during the period under consideration is rather controversial. In 2009, that component was the dominating factor,

¹ Growth rate changes are estimated by linear trends in order to lower the dependence of the resulting estimates on the specific choice of the first and last quarters of the period under consideration.

² In absence of quarterly statistics, the growth estimates of fixed assets are plotted on the assumption of constancy of the coefficient of their withdrawal and a constant share of investments earmarked for their renewal. In should be noted that the estimate obtained in this manner may be biased because it will not take into consideration the time lag between the moment when investments are received and the moment of their actual implementation.

which determined on the average 73 % of the rate of GDP decline. In Q I and III 2010, the rate of TFP growth remained negative, thus being responsible for its negative (and sufficiently significant) contribution to the rate of output growth; in Q II the contribution of TFP was positive but no more than 3 %. In this connection, similarly to all the other components considered earlier, the dynamics of total factor productivity demonstrates a downward trend with regard to the rate of its decline, with a quarterly average of 0.2 p.p. (or 0.7 p.p. in accordance with a linear trend). However, in contrast to the input of the main factors, this slowdown in the rate of its decline is insufficient for achieving a positive TFP dynamics.

It should be noted that the meaning of TFP after a decomposition of the growth of value indices (as represented by GDP) becomes somewhat different from the traditional understanding of technology-related productivity. The estimation by TFP describes not only the changes in the intensive (and primarily ‘technological’) components that are conducive to an increased production performance, but also the exogenous shocks, the influence of other indices that are excluded from the estimation of the input of the main factors, and the shifts determined by the uneven character of output prices and capital input¹, among which a significant role (especially in the short term) is played by the changes related to the dynamics of world oil prices.

In accordance with our results,² changes in oil prices (with the exception of Q IV 2009) largely determined the rate of growth of both TFP and GDP. On the average in the period under consideration, changes in the price factor determined approximately 60 % of the rate of output growth, whereas only about 42 % was determined by technology-related productivity (final residual). Besides, after the prices on the world raw materials markets were taken as a separate factor, the changes in the rate of the technology-related component’s growth became different from TFP dynamics: the rate of final residual’s growth was positive or close to zero only in January – September 2009, and then from Q IV the technology-related component demonstrated a stable decline. On the whole, during that period the dynamics of final residual was characterized by a slower rate of growth, on the average 1.1 p.p. per quarter (or 1.8 p.p. in accordance with linear trend).

Thus, the changes in the rate of GDP growth that were observed in 2009 – 2010 were accompanied by a certain transformation in the structure of its determining factors. It was characterized by a declining contribution of capital input, with a simultaneously increasing contribution of labor input, while in 2009 the role of total factor productivity remained predominant, and then in 2010 capital input once again began to play a dominant role against the backdrop of negative contribution of TFP. In this connection, changes in the growth rates of both labor input and capital input are determined in the main by fluctuations in the degree of their use (the length of working hours and the intensity of the use of production capacities).

¹ A price-based estimate of productivity coincides with a ‘physical’ one if the economy is in conditions of a long-term equilibrium and perfect competition. In other words, this coincidence takes place when all possible exogenous shocks are taken into account in the current equilibrium of the system.

² The singling out of the conjecture component within TFP and the conduct of the further decomposition of the growth rate of output are based on the presence of a statistically significant interrelation between the growth rate of GDP and the growth rate of world oil prices, which is estimated with a regression analysis of annual data for 1999-2009. The resulting ‘final remainder’ purged of the influence of price fluctuations on world raw materials markets is a more correct characteristic of technological productivity, i.e., the intensive component of growth in output.

The rates of growth displayed by nearly all the extensive components (with the exception of fixed assets) were changing in a similar way: a negative rate of growth in 2009 followed by a shift towards positive values in late 2009 – early 2010.

On the average, in 2009 – 2010 the contribution of productivity factors to GDP growth amounted to approximately 18 % without oil prices (– 42 %), after the estimates of the contribution of price fluctuations on international raw materials markets were excluded. In this connection, it should be noted that in Q IV 2009 – 2010 the estimates of technology-related productivity were demonstrating a negative rate of growth.

The Dynamics and Structure of Production, by Type of Economic Activity

During the 2008 crisis, a decline in the rate of production was first recorded in the export-oriented industries, and then it spread into the processing industries whose development had been demonstrating a high rate of growth for a number of years. In Q IV 2008, for the first time after the 1998 crisis, a negative rate of development was observed in industry. The crisis in industry was marked by a rapid production decline in the processing industries. Until mid-2009 the situation was determined by the influence of inertia and the factors that had emerged during the acute phase of the financial crisis in 2008. The deepest slump in production with regard to the main types of economic activity was recorded in the first half-year 2009, when it amounted to only 13.9 % of the level recorded in the same period of the previous year. The drop in industrial production in the first half-year 2009 amounted to 14.5 %, including 22.3 % in the processing industries. Investments in fixed assets in that period dropped by 10.5 %, and those in the consumer market shrank by 2.5 %. The unemployment indices at that time reached their historic high – 8.8 % of the total number of employed.

From the second half-year 2009, in response to a revival of the external demand coupled with the anti-crisis measures, the situation began to improve, and so the year's results on the whole demonstrated that industrial production dropped by 9 % of the previous year's level, including by 0.6 % in the extracting industries and by 15.2 % in the processing industries. However, the situation was complicated by the persisting downward trends on the consumer and investment markets. As seen by the results of the year 2009, retail turnover dropped by 4.5 %, and investments in fixed assets – by 16.2 %.

With the rebound in demand on the international and domestic markets for energy carriers, the growing rate of extraction of mineral resources in Q IV 2009 once again triggered development in the processing industries. Growth of industrial production in the first half-year 2010 amounted to 110.2 %, including by 105.8 % in the extracting industries and by 114.3 % in the processing industries.

In Q III 2010 there occurred a slowdown in the rate of economic growth as a result of a drop by 18.6 % on the same period of the previous year in the volume of agricultural production, as well as a slower growth of exports. The industrial production index in Q III 2010 amounted to 106.3 %. However, in Q IV, alongside a sufficiently high growth rates displayed by investments and the consumer market, the rate of growth in industry was recorded at the level of 6.5 %, including 9.9 % in the processing industries (*Fig. 6*).

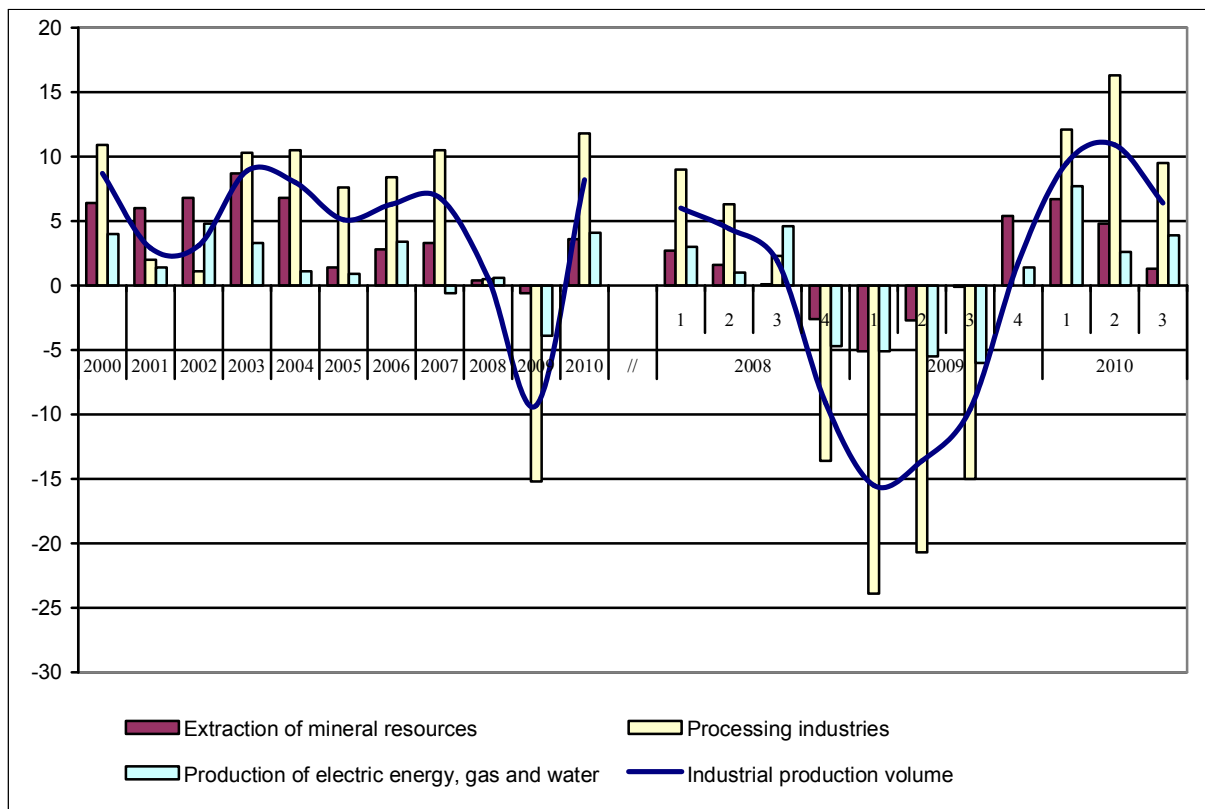


Fig. 6. Changes in the Rate of Production Growth in Industry, by Type of Economic Activity, in 2000 – 2010, as % of the Same Period of a Previous Year

The rate of development in the processing industries differs rather significantly depending on the type of economic activity, with the strongest influence on the specificity of rehabilitative growth being exerted by the ratio between the rates of production of capital and consumer commodities. While the rates of production of foodstuffs, leather products and footwear, coke and petroleum products, chemicals, and rubber and plastic products in 2010 rose above their pre-crisis level, the production of machinery and equipment, means of transportation and metallurgical products were below their 2008 indices (*Table 10*).

In view of the sufficiently strong fluctuations of the rate of growth between different types of activity across the processing industries, the plummeting rate of output in machine-building became a dominant factor that negatively influenced the level of business activity in related industries (construction materials and other types of intermediate commodities). The slump in the machine-building complex from Q IV 2008 onwards entered an acute phase, and the rate of production there throughout the year 2009 was far below the average level production in the processing industries.

In 2010, the rate of development in machine-building shifted towards positive values. Thus, in particular, the measures undertaken by the government in order to support the motor-car industry, including those designed to promote demand, resulted in a revival of domestic production growth.

Table 10

**Production Indices, by Type of Activity, in the Processing Industries
in 2008 – 2010, as % of the Same Period of a Previous Year**

| | 2008 | 2009 | Q I | Q II | Q III | Q IV | 2010 | Q I | Q II | Q III | Q IV |
|---|-------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Processing industries | 100.5 | | 76.1 | 79.3 | 85.0 | 100 | 111.8 | 112.1 | 116.3 | 112.6 | 109.9 |
| Production of foodstuffs, including beverages and tobacco | 101.9 | 99.4 | 97.5 | 97.5 | 97.8 | 103.9 | 105.4 | 103.8 | 106.4 | 105.4 | 105.9 |
| Production of textiles and garments | 94.6 | 83.8 | 79.1 | 78.0 | 82.6 | 95.9 | 112.1 | 110.2 | 115.6 | 111.4 | 111.3 |
| Production of leather, leather products and footwear | 99.7 | 99.9 | 85.8 | 97.3 | 104.5 | 112.3 | 118.7 | 126.3 | 120.0 | 111.4 | 118.4 |
| Timber processing and timber products | 99.9 | 79.3 | 71.7 | 74.7 | 79.8 | 92.4 | 111.4 | 111.1 | 112.6 | 111.4 | 110.5 |
| Pulp and paper production, publishing and printing | 100.3 | 85.7 | 78.1 | 82.9 | 86.3 | 96.5 | 105.9 | 106.7 | 109.3 | 106.7 | 97.8 |
| Production of coke and petroleum products | 102.8 | 99.4 | 95.8 | 99.8 | 100.2 | 101.6 | 105.0 | 104.7 | 105.3 | 103.5 | 106.4 |
| Chemical production | 95.4 | 93.1 | 77.9 | 86.4 | 91.9 | 123.1 | 114.6 | 123.8 | 115.7 | 112.5 | 108.1 |
| Production of rubber and plastic products | 122.8 | 87.4 | 72.7 | 84.7 | 89.3 | 101.4 | 121.5 | 122.8 | 119.2 | 121.9 | 122.4 |
| Production of other non-metal mineral products | 72.5 | 72.5 | 63.5 | 66.6 | 75.0 | 85.1 | 110.7 | 104.9 | 114.2 | 109.1 | 113.2 |
| Metallurgy production and production of finished metal products | 97.8 | 85.3 | 70.0 | 75.2 | 86.3 | 114.4 | 112.4 | 118.8 | 119.6 | 107.3 | 104.8 |
| Production of machinery and equipment | 99.5 | 68.5 | 56.5 | 62.5 | 70.7 | 87.8 | 112.2 | 109.1 | 130.5 | 101.4 | 110.5 |
| Production of electrical, electronic and optical equipment | 92.6 | 67.8 | 56.8 | 61.3 | 69.9 | 82.4 | 122.8 | 130.4 | 127.5 | 117.3 | 119.3 |
| Production of means of transportation and transport equipment | 100.4 | 62.8 | 61.0 | 59.2 | 56.7 | 74.3 | 132.2 | 113.3 | 141.2 | 138.1 | 135.9 |
| Other industries | 98.3 | 79.3 | 67.3 | 70.7 | 82.7 | 98.5 | 117.7 | 130.7 | 135.4 | 117.1 | 111.4 |

Source: Rosstat.

Over recent years, imports have continued to significantly influence the rate and character of development in the machine-building sector. This phenomenon occurred due to the fact that the very low competitive capacity of many types of machines and equipment by comparison with their imported foreign counterparts in terms of the price/quality criterion, as well as lack of proper capacities for the production of state-of-the-art technologies imposed considerable restrictions on the market available for the domestic machine-building products. The influence of imports varies significantly between different sectors of the economy and commodities markets. Growth of imports on the market for investment-linked machine-building products was one of the main factors that promoted investment projects, modernization of production the implementation of technological innovations. At the same time, imports competition became more acute, in particular in sectors like machine-tool manufacture, agricultural machine-building, production of construction machines and the motor car industry. These industries were characterized by low levels of investment activity, high rates of depreciation of fixed assets, backward technologies; one of the promising areas of development there was the transfer of foreign companies manufacturing facilities into Russia's territory (assembly plants). An accelerated output growth demonstrated by companies with the participation of foreign capital was altering the competitive environment and promoted the traditional types of production. However, it were those types of production that proved to be the most vulnerable ones in crisis conditions, because for many years no relevant steps had been taken in order to promote the

production of parts by domestic enterprises. Given the well-developed network of inter-branch links in machine-building in general and in the motor-car industry in particular, the plummeting output there had a very painful effect on related industries and the infrastructure, as well as the employment level.

The 2008 crisis hit hard the Russian motor industry: domestic producers were forced to temporarily halt their conveyer belts and to cut their personnel. The dramatic drop in demand negatively influenced production development (among other things, because of the unattractive terms of consumer credits, declining incomes of the population, and overproduction which resulted in increased stock reserves, as well as difficulties experienced by domestic companies when trying to attract credits for replenishing their current capital). The foreign producers operating in the territory of Russia suffered from the instability of the currency exchange rate, because the bulk of spare parts (80 – 100 %) was being imported from the far abroad. Thus, the once very promising Russian market for motor vehicles quite soon began to resemble the stagnating European market, the only difference being that the number of passenger cars per capita in the Russian Federation had never reached the indices typical of West Europe. As a result of the crisis, in 2009 the production level in the Russian motor industry dropped by 60 %, including a drop in the production of domestic brands by 36.7 % as compared to the pre-crisis year 2008, in the production of foreign brands by 47.2 %, and in the import of new cars by 39.7 %.

The roles of raised import duties and the ruble's depreciation were roughly equal, in that the expenditures of Russian sellers rose by nearly 50 % (ruble-denominated). As a result, import of second-hand cars became unprofitable, because their price was higher than that of the foreign-brand cars manufactured in Russia. In this connection, while total sales of imported cars dropped by more than 3.7 times, the sales of new cars dropped 2.5 times, and those of second-hand cars – more than 25 times. The leader in the decline of motor car sales became the passenger car segment as a result of increased import duties.

The program of anti-crisis measures adopted by the Government of the Russian Federation for 2009, including the measures designed to regulate customs tariffs, made it possible for Russian car manufacturers to overcome the consequences of the economic crisis and to avoid bankruptcies and production stoppages through increasing their market share and thus compensating them for their losses resulting from the general drop in sales on the market. Besides, it created additional incentives for the founding of strategic alliances between biggest Russian and foreign producers.

In order to promote investments and the general financial rehabilitation of enterprises, government guarantees were granted to motor car manufacturers. The Open-end Joint-stock Company *Avtovaz* received financial support. Besides, companies' debts were restructured and the interest rates on credits attracted for the purposes of technological upgrading were subsidized.

In 2010, in addition to the previous decisions, the following measures were planned:

- continuation of the program for granting preferential credits to individuals willing to purchase motor cars of the Russian make;
- prolongation of the mechanism for government purchases of motor cars from Russian producers recognized as 'sole suppliers';
- launching of the program that envisages the purchase by individuals, with a discount of 50,000 Rb, of new Russian motor cars in return for old cars submitted by them for dispos-

al; the funding allocated for the program amounts to 11.05 bn Rb; it is planned to utilize up to 200,000 cars in this manner;

- the decision concerning the continuation of subsidizing Russian motor car manufacturers in order to compensate them in part for the payment of interest on credits attracted for the purposes of technological upgrading.

The government anti-crisis measures stabilized the situation, and so motor car output growth in 2010 was 1.7 times higher than the same index for 2009, including a twofold growth of output of passenger cars, a 1.65 times increase in the output of freight motor vehicles and a 1.26 increase in that of buses. Experts predict that the pre-crisis level of the motor vehicle market will be once again achieved by 2013 – 2014.

Nearly all the newly introduced measures had a positive effect on production and the situation on Russia's motor vehicle markets, and also moderated the negative processes on the labor market. While recognizing the significance and efficiency of the short-term anti-crisis measures, it should be emphasized that the stability of development on the motor vehicle market will depend on adequate solutions to the existing fundamental problems and on the implementation of an equally adequate strategy for developing the motor car industry.

The current situation in the Russian motor industry is rather controversial. The rapid growth of the domestic market in the period prior to 2008 sustained by the increasing incomes of the population and expanding consumer crediting as well as by the strengthening of the national currency was accompanied by structural changes in demand, when the share of domestic producers on the motor car market was shrinking alongside a simultaneous intensification of competition inside certain price segments between the foreign-brand cars assembled in Russian territory and imported new motor cars.

The government policy aimed at attracting foreign investments into the motor industry benefited end consumers, but were still insufficient for ensuring a comprehensive development and restructuring of the motor industry.

A significant impact on the dynamics of production was produced by the government program 'The Experiment Designed to Promote the Acquisition of New Means of Automobile Transport in Return to Those Taken Out of Service and Submitted for Utilization'. The age structure of the existing motor car fleet is quite disadvantageous. The mean age of a motor car in Russia is 12 years, and vehicles aged less than 5 years constitute only 26 % of the car fleet, whereas in Europe and the USA the mean age of a motor car is 8.5 years. The per annum rate of withdrawal of old vehicles from the motor car fleet in Russia is 3 – 4 % against 6 – 7 % in developed countries. It should be admitted that utilization of vehicles – given the current changes in the situation on the domestic market, the rate of production and imports – will have only a short-term effect that will soon disappear if such measures are not sustained by a comprehensive strategy of long-term development of the motor car industry. It appears that the age structure of the motor car fleet can be changed more efficiently by measures aimed at promoting purchases of new vehicles, namely establishing a tax on motor cars depending on their ecological class; subsidizing those consumers who buy vehicles of a higher ecological class; increasing the cost of insurance for second-hand vehicles; introducing tougher requirements for mandatory technical checks, etc. A comparison of the domestic motor car industry with foreign practices can serve as an illustration of Russia's significant lag in terms of production volume and investments in companies' fixed assets, research and development, and labor productivity. The funding earmarked by Russian motor car producers to research and development does not exceed 1 % of their annual proceeds, whereas for the leading foreign manufacturers these ex-

penditures amount to 4 – 5 % or more of their annual turnover. This results in the development cycle of new car models in Russia being much longer than in the case of the world production leaders, and so the rate of renewal is much lower in the case of the former.

The loss of a significant market share has resulted not only from the low level of the domestic motor car technologies, but also from insufficient investments in the development of new platforms and models, from the limited number of models and options offered to the consumers. Russian companies have invested in the development of their industry a share of their proceeds that is 4 – 5 times less than that of their foreign competitors, which is the result of the inefficiency of the financial mechanisms available to them, including those designed to attract credits.

The insufficient competitive capacity of the domestic motor industry's products is the outcome of low investments in fixed assets. This phenomenon can be explained, on the one hand, by the high cost and short terms of the available investment credits, which cannot be taken full advantage of because of the low rate of return on production (traditionally between 6 and 8 %) and companies' solvency levels; and on the other, by insufficient motivation for the government to make investments in the motor car industry.

In order to achieve the long-term development goals for the motor car industry, substantial capital investments will be necessary in the following key areas:

- creation of new production capacities for manufacturing motor cars, their parts and engines, in order to satisfy the growing demand by domestic products;
- modernization and technological upgrading of the existing production capacities in order to bring them up to a competitive level in terms of efficiency, productivity and product quality;
- research and development aimed at creating new platforms and models, the components and equipment needed for the production of those models, as well as purchase of licenses and adaptation of global platforms within the framework of collaboration with international partners;
- financing of current capital needed for sustaining the forecasted growth of sales on the Russian market.

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Our analysis of the main macroeconomic trends has led to the following conclusion. Although in 2010 the Russian economy actually came out of the acute phase of the crisis, the unstable dynamics of the main macroeconomic indices, the slow exit from the crisis of the investment, financial and crediting sectors of the economy, and the complicated situation on the labor market are still imposing a system of restrictions to development in the short-term period.

The national economy continues to be dominated by the same factors that determined the speed and depth of its decline during the crisis and the insufficiently rapid elimination of the acute crisis phenomena: its dependence on changes in the world prices for Russia's exported raw materials; low domestic demand and a lax attitude of domestic producers towards making interventions on the most promising markets for consumer, investment and intermediate commodities; and a weak financial system.

The creation of necessary economic conditions for the economy's transition from the anti-crisis mode to rehabilitative growth implies implementing a system of measures aimed at modernization of production capacities, enhancement of innovation activities, and improvement of the quality of human capital.