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The review provides a detailed analysis of main trends in Russia's economy in 2008. The paper contains five big sections that highlight single aspects of Russia's economic development: the socio-political context; the monetary and credit and financial spheres; 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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Macrostructure of Production in Russia in 2008

Influence of Internal and External Demand on GDP Dynamics and Structure

In 2008 a considerable slow-down replaced the growth of the Russian economy observed in the period of 2003-2007, when the average annual growth rates of the indices were the following: GDP – about 7%, investments in fixed assets – 14%, final consumption of households – 11%. According to the preliminary data for 2008, GDP increase was equal to 5.6%, approaching the figures of 2001-2002, which have been the minimum of the ten-year recovery period. The growth rates of investments in fixed assets slowing down to 9.1% in 2008 as compared with 21.7% in 2007, which was not compensated by the corresponding growth of the consumption of the population, accounted for the gradual decrease of the internal demand. The inflation increasing, the growth rates of the real incomes of the population slowing down to 2.7% versus 12.1% in 2007, real wages -to 9.7% versus 17.2%, the growth rates of the retail trade turnover made 113.0% and were 3.1% below the level of the previous year, while that of the paid services rendered to the population – 104.9% versus 107.9% a year ago. Slow-down of industrial production growth rates to 102.1% versus 106.3% in 2007 had a considerable influence on the internal market.

Table 1
Indices of the Basic Macroeconomic Indicators in 1999–2008,
as a percentage versus the previous year

	2001	2002	2003	2004	2005	2006	2007	2008	·	2008 by	quarters	·
	2001	2002	2003	2004	2005	2006	2007	2008	1	2	3	4
Gross Domestic Product	105.1	104.7	107.3	107.2	106.4	107.4	108.1	105.6	108.5	107.5	106.2	101.1
Real final consumption of households	108.2	107.7	106.7	110.2	110.5	109.8	111.0	111.5	114.1	112.2	112.4	109.7
Investments in fixed assets	110	102.8	112.5	111.7	110.9	116.7	121.1	109.1	119.1	113.0	109.8	101.9
Commissioning of residential building	104.6	106.7	107.7	112.6	106.1	116.1	119.4	105.3	108.1	99.1	105.7	105.1
Industrial production	102.9	103.1	108.9	108.0	105.1	106.3	106.3	102.1	106.2	105.5	104.7	93.9
Agriculture production	107.5	101.7	101.3	103	102.4	102.8	103.3	110.8	104.5	104.2	108.5	59.2
Freight turnover	103.2	105.8	108	106.5	102.7	102.5	102.2	100.6	105.1	102.9	101.5	93.0
Communication services amount	119.1	115.6	127.5	129	115.7	124.0	120.1					
Retail trade turnover	111	109.3	108.8	113.3	112.8	114.1	116.1	113.0	116.7	114.4	114.4	108.2
Paid services rendered to population	101.6	103.7	106.6	108.4	106.3	107.6	107.9	104.9	107.7	105.6	105.3	102.0
Foreign trade turnover	103.8	108.1	126	132.4	131.5	127	120.8	132.2	148.8	147.9	149.3	95.4
Real disposable monetary income	108.7	111.1	115	110.4	112.4	113.5	112.1	102.7	107.8	106.0	106.6	94.2
Real wages	119.9	116.2	110.9	110.6	112.6	113.3	117.2	109.7	113.4	112.5	112.2	102.5
Real amount of accrued pensions	121.4	116.3	104.5	105.5	109.6	105.1	104.8	118.1	119.0	113.7	122.7	116.9
Average number of those em-	100.7	100.9	100.6	100.6	100.6	100.6	101.3	100.6	100.8	101.2	100.8	99.7

ployed in the economy												
Number of officially registered	89.1	97.9	92.3	101.6	90.2	96.0	84.9	104.3	96.5	94.2	105.6	123.0
unemployed												
Consumer prices indices	118.6	115.1	112.0	111.7	110.9	109.0	111.9	113.3	104.8	103.8	101.7	102.5
Industrial producers' prices	108.3	117.7	112.5	128.8	113.4	110.4	125.1	93.0	103.0	113.6	100.5	79.1
indices												

Source: Federal State Statistics Service.

In 2008 macroeconomic situation was characterized by highly unsteady dynamics of the main indices throughout the year (*Table 1*). GDP growth rates slowed down from 8.5% in the 1st quarter to 1.1% in the 4th quarter. The inertial growth of the first half of 2008 supported by the accumulated potential, favorable situation at the world market of raw materials, was replaced by the slow-down of the economic development in the second half, which was accounted for by a sudden worsening of the foreign economic situation and the crisis of the financial and crediting institutions. In October-December 2008 the situation was aggravated by the spread of the crisis phenomena throughout the economy. The most dramatic decrease in production was observed in construction, transport and industrial production. According to the data of the Federal State Statistics Service, in the 4th quarter 2008 the volume of the industrial production was 93.9%, the commercial freight turnover – 93.3% as on the level of the corresponding period of the previous year. The growth rates of the investments in fixed assets continued to slow-down for two quarters in a row, their volume in December 2008 being 2.3% below the volume of December 2007. The increase in gross accumulation of fixed capital in 2008 was estimated to be 110.3% as compared with 121.1% in 2007.

Starting with the second half of 2008 the trade has been occupying the leading positions in the national economy anew. The share of the wholesale and retail trade in the GDP produced was 21.7% in 2008. The dynamics of the consumer demand in 2008 was still determined by the consumption of households. The increase in household consumption is estimated to be 111.5% in 2008, as compared with 113.6% in 2007. In connection with the slow-down of labor remuneration growth in the 4th quarter of 2008, the growth rates of retail trade turnover and of the paid services rendered to the population have dropped. Although the growth rates of the retail trade turnover went down to 8.2% in the 4th quarter 2008 versus 16.2% in the corresponding period of the previous year, the investments in fixed assets – to 1.9% versus 20.6%, this enabled to support the positive dynamics of the GDP in October-December, though at the level which has been the minimum since 2001.

The situation was aggravated by a large-scale outflow of capital. Whereas in the first half of 2008 the trend for the inflow of the foreign capital at the amount of USD 18 billion sustained, in the second half 2008 the outflow of capital reached USD 147.9 billion.

Starting with the second half of 2008 the unsteady dynamics of the main macroindices, as well as sudden fluctuations of prices and demand at the world market of raw materials resulted in the international agency Standard&Poor's lowering the rating of Russia from "positive" to "stable" in September, and from "stable" to "negative" in October, leaving the rating itself unchanged. In December the agency lowered long-term and short-term foreign currency credit ratings of the Russian Federation: from "BBB+/A-2" to "BBB/A-3". Besides, the long-term sovereign local currency credit rating was lowered: from "A-" to "BBB+", retaining the short-term local currency rating at the level of "A-2".

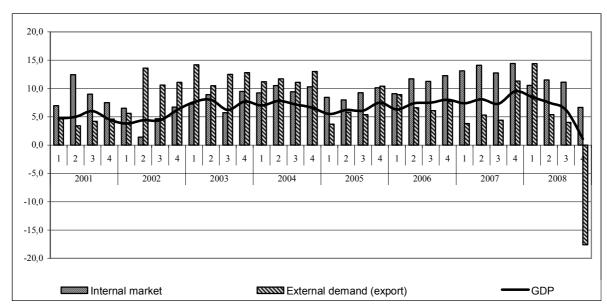
The forecast "negative" for the sovereign credit rating of the Russian Federation reflected the possibility for further decrease in the ratings if the expenditures for the support of the

financial system increase and the measures adopted for the prospects of long-term development exert bigger negative influence.

In January 2009 analytical agency Fitch lowered Russia's rating down to the level of BBB, which was due to both the decrease in prices for raw materials and the aggravation of the situation at the global markets of capital, as a result of which the Russian banks had difficulties with refinancing of the external debt. International reserves of the Russian Federation had decreased down to USD 427.1 billion by the end of the year versus USD 597.5 billion at the beginning of August 2008.

Throughout 2008 the decrease in the economic growth rates was determined by the simultaneous reduction in the external and internal demand (*Fig. 1*). Starting with the 3rd quarter 2008, a sharp drop in the world prices for raw materials and contraction of the demand of the world market was accompanied with the reduction of export volumes both in physical and value terms. In the 4th quarter, according to preliminary estimations, the export of goods reduced by nearly 17%. However the dynamics of export being high in the first half, on the whole over 2008 the export of goods and services increased by 0.2% versus 6.4% growth in 2007. It should be noted that the anticipating growth of import as compared to export in terms of both the physical volume and value was a characteristic feature of 2006-2008, which in the end resulted in the absolute reduction of net export volume in the GDP.

The analysis of the formation of the resources of retail trade demonstrates that staring with 2005 the trend for the growth of the proportion of import supplies of both the foodstuffs and non-food goods. In 2008 the proportion of the import in the structure of retail trade commodity resources increased up to 47%, the growth of foodstuffs being 34.0% and of non-foods goods – 54.4%. A high proportion of the import goods secured the balance of supply and demand at the investment market as well. In January-September 2008 the expenditures for the purchase of the import equipment made 19.9% of the total volume of investments into machinery and equipment. Other conditions being equal, a dynamic growth of import contributed in the formation of the competitive environment, but a high proportion of import in the retail trade turnover and in the volume of investments in machinery, equipment and transport vehicles strengthened the dependence of the balance of the trading resources at the internal market on the changes in the external economic situation.

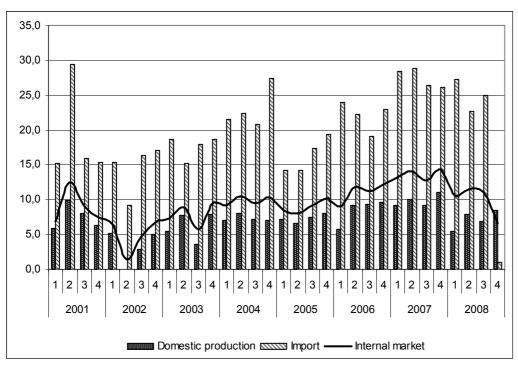


Source: Federal State Statistics Service

Fig. 1. Changes in GDP Dynamics As Broken by Components of Internal and External Demand in 2001-2008, As Percentage to Corresponding Quarter of Previous Year

In 2008 the slow-down of the dynamics of the investment and consumer demand occurred against the background of the considerable decrease in the volume of goods and services import. As a result of 2008 the growth of the physical volumes of goods and services import made 17.7% versus 26.6% a year ago, the growth of import being twice as intensive as the growth of the internal production.

In 2008 the combination of the internal factors regulating the level of the business activity did not compensate the influence of the contraction of the external demand on the economic growth rates. As a result of three quarters of 2008 the increase in internal demand made 11.1% versus 13.6% in 2007. Against the background of slow-down of the rates of the domestic production, the positive dynamics of the internal market was sustained by the increase in import supplies throughout the first half of the year. As a result, the proportion of the goods and services produced domestically in the structure of the internal demand coverage decreased steadily. Starting with August 2008 the situation changed radically. Under the influence of the contraction of the investment, production and consumer demand as a result of the credit crisis there was an absolute reduction in the volume of goods import in terms of value observed in the 4th guarter 2008. In such a situation the state of the internal market was supported by the increase of both the share of services, and the enhancement of the stocks of the material liquid funds due to the contraction of the internal demand. The turnover of the organizations of the wholesale trade started decreasing in the 4th quarter 2008 and made 93.7% as compared with the corresponding period of the previous year. The increase in the material liquid funds was 33.1% on the whole over 2008, their share in the GDP being at the level of 4.1%. Thus, in the 4th quarter 2008 the situation at the internal market was defined by a considerable excess of supply over demand for the first time since 1999 (Fig. 2).



Source: Federal State Statistic Service

Fig. 2. Changes in Internal Demand Growth Rates in 2001-2008, As Percentage to Corresponding Quarter of Previous year

In 2006-2008 the economic growth was in fact at the stage of the quantitative accumulation and was not supported by the structural changes in the investment activity, foreign trade, production, as well as by institutional reforms, securing favorable conditions for effective operation of economic agents. This defined the vulnerability of the Russian economy in the environment of global changes in the situation at the world market.

The means of the stabilization funds (Reserve Fund and Fund of National Welfare) were insufficient to damp the negative influence of the external factors. Use of accumulated funds and measures for the gradual change of the ruble exchange rate against the basket of currencies, decrease in tax burden on producers do not allow stopping negative trends in the investment sphere, goods and services production, in the sphere of employment and maintenance of life standard.

Final Consumption of Households and Changes in Parameters of Population's Life Standard

During January-September 2008 the share of expenditures in for final consumption in the structure of the use of the GDP decreased systematically and in he 3rd quarter became equal to 61.6%, which is 1.8 per cent below the figure of the corresponding period of the previous year (*Table 2*). The decrease occurred mainly due to the contraction in the expenditures of households. The slow-down of the rates of household consumption was caused by a decrease in the incomes of the population, an increase in wages arrears, a contraction of the solvent demand of the population against the background of high inflation, an increase in the cost of credit funds. As a result of 2008 the share of labor remuneration in the structure of the incomes of the popu-

lation made 68.5%, exceeding by 1.0 per cent the figure of 2007, and the share of social payments went up from 11.3% to 12.9%. At the same time it should be noted that the incomes from the property in monetary incomes of the population went down by 2.3 per cent and were equal to 6.6%. At the same time the anticipating growth of pensions and social payments in the first half of 2008 allowed to restrict the growth of the number of the population with the incomes below the subsistence level even in the environment of high inflation (*Table 3*).

Table 2
Structure of Use of Gross Domestic Product

		2007						2008*				
	Annual quarters				Annual	quarters						
	-	1	2	3	4	=	1	2	3	4		
GDP	100	100	100	100	100	100	100	100	100	100		
expenditures for final consumption	66.0	71.4	67.5	63.4	63.8	66.0	69.9	65.0	61.6	68.4		
of households	48.2	50.1	48.4	46.4	47.5	48.5	48.7	46.6	45.2	48.9		
of state management	17.2	20.7	18.6	16.6	15.8	16.9	20.6	17.9	16.0	14.1		
Gross accumulation	24.3	18.7	22.8	28.7	26.3	26.2	19.1	24.5	30.3	20.1		
Net export	8.6	10.1	8.9	7.3	8.9	8.9	12.5	10.5	9.1	4.0		

^{*} preliminary results, statistical deviation = 1.1

Source: Federal State Statistics Service

 ${\it Table~3}$ Number of Population with Monetary Incomes below Subsistence Level

	Million of people	As percentage to the total number of the population
2005		
1 st quarter	34.9	24.5
1st half of the year	31.4	22.1
Annual	25.2	17.7
2006		
1 st quarter	31.7	22.4
1 st half of the year	27.0	19.1
Annual	21.6	15.3
2007		
1 st quarter	25.8	18.3
1st half of the year	22.3	15.8
January-September	20.9	14.8
Annual	21.5	15.2
2008		
1 st quarter	23.0	16.3
1st half of the year	20.7	14.7
Annual		13.2

Source: Federal State Statistics Service

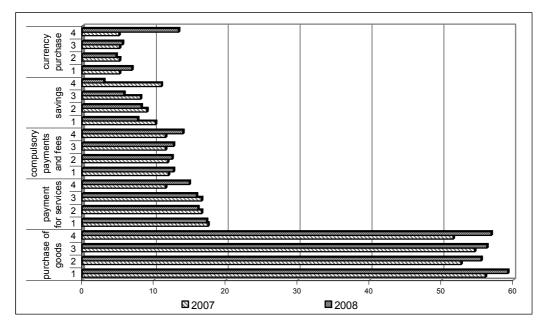
The investment market contracting dramatically, in 2008 the level of the consumer demand remained the main source of the economic growth despite the fact that in the 4th quarter the increase in the retail trade turnover made 8.2% as on the corresponding period of the previous year versus 15.5% in the first half of the year and 14.5% in the 3rd quarter. Against the background of the slow-down of the growth rates of the real incomes of the population in January-September and their decrease by 5.8% in the 4th quarter 2008 for the first time since

2000, the trend for the dynamics of the retail trade turnover being higher than the real incomes of the population testified that the inclination of the population to save decreased steadily. The dynamics of the savings of the population was considerably influenced by the acceleration of the inflation, periodic problems with the liquidity of the banks, ruble weakening and negative phenomena (slow-down of housing implementation, growth of interest rates for mortgages) at the real estate market. Massive outflow of savings was accompanied with the population being more active at the market of foreign currency (*Fig. 3*). In the 4th quarter 2008 the share of expenditures for purchase of the currency was equal to 13.4% of the incomes of the population, and in December of the same year – to 14.9% versus 4.8% in the corresponding period of 2007. As a result the share of expenditures for purchase of goods made 56.9% in the 4th quarter 2008 versus 59.2% in the 1st quarter.

The volume of credits given to the natural persons by banks increased by nearly 1.35 times over the first eleven months of 2008 and was equal to RUR 4054.8 billion at the beginning of December. The volume of credits given to natural persons by crediting institutions for purchase of accommodation (in rubles and in foreign currency) made RUR 614.5 billion in January-September 2008 versus RUR 424.1 billion in the analogous period of the previous year, including mortgage credits of, correspondingly, RUR 537.3 billion versus 362.8 billion. It should be noted that by October 1, 2008 the arrears of credits issued to natural persons went up to RUR 4004.1 billion as compared with RUR 2658.3 billion as on October 1, 2007.

As compared with October 2007, in October 2008 there was a decrease in the proportion of arrears of consumer credit in the total volume of arrears of credits of natural persons, the arrears of credits for the purchase of housing growing up to 28.7% versus 23.4% a year ago and for mortgage up to 24.3% versus 18.7%.

The share of the expenses of the population for the purchase of the real estate in the 4th quarter 2008 made 3.0% (6.0% on average over the year) versus 11.0% (9.6%) in the corresponding period of the previous year.



Source: Federal State Statistics Service

Fig. 3. Structure of Use of Monetary Incomes of Population in 2007-2008, as percentage to total

Source: Federal State Statistics Service

Fig. 4. Dynamics of Retail Trade Turnover and Paid Services to Population in 2006–2008, As Percentage to Corresponding Quarter of Previous Year

The volume of sales of non-food goods continued to develop at higher rates than that of foodstuffs (*Fig. 4*). Starting with the beginning of the year prices for non-food goods went up by 8.0% and for foodstuffs – by 16.5%. The ratio of the growth rates of these indices, on one hand, indicates that the solvent demand of the population contracted and, on the other hand, reflects the formation of the pent-up demand for non-food goods.

Dynamics and Proportion of Gross Saving and Gross Accumulation in GDP

In 2003-2007 a favorable combination of factors of the domestic business activity and the price situation at the world market of raw materials accounted for the intensive increase in the scales of gross saving. In that period the growing incomes of the economy from the foreign economic activity obviously stimulated economic activity. It should be noted that starting with the 2nd quarter 2008 there was a strengthening of the influence of the investment component on the dynamics of the economic growth observed. The growth rates of the investments in fixed assets reached the maximum level of 121.1% in 2007 versus 113.7% in 2006 and 109.5% on average over the period of 2000-2005. However whereas in 2007 the volume of the GDP exceeded that of pre-reform 1991 by 10%, the investments in fixed assets were 1/3 below the corresponding figure. During the past seven years the proportion of gross saving was in the range from 31.1% to 38.7% of the GDP as compared with 24.0% in the pre-default 1997. In 2007 the proportion of the gross national saving made 34.0% and remained at that level in 2008. The investment demand was quick to react to the changes in export earnings and defined the characteristics features of the internal market functioning. The slow-down in the growth

rates of the investments in fixed assets was accompanied by structural changes in the use of national saving throughout 2008. Although on the whole over 2008 the improvement in the characteristics of transformation of savings in investments and the increase in their share in the GDP can be noted (*Table 4*), the sharp decrease in the growth rates of investments, implementation of fixed assets and intensive growth of the volumes of unfinished construction in 2007-2008 had a negative impact on the nature of the economic growth by the end of 2008.

Table 4
Structure of GDP Use on Gross Saving and Accumulation in 2000-2008,
As Percentage to Total

	2000	2001	2002	2003	2004	2005	2006	2007	2008
GDP	100	100	100	100	100	100	100	100	100
Including:									
Gross saving	38.7	34.2	31.1	31.9	33.1	33.8	34.2	34.0	34.0
Of which:									
Gross accumulation	18.7	21.9	20.1	20.8	20.9	20.1	21.4	24.3	26.2
Gross accumulation of fixed capital	16.9	18.9	17.9	18.4	18.4	17.7	18.5	21.1	22.1
Changes in stocks of material liquid funds	1.8	3.1	2.1	2.4	2.5	2.3	2.9	3.2	4.1
For reference:									
Share of investments in GDP	15.9	16.8	16.3	16.5	16.8	16.7	17.6	20.0	20.7

Source: Federal State Statistics Service

Specific Features of Formation of GDP as Broken by Incomes

Dynamic growth of the incomes of the population was one of characteristic features for the development of the Russian economy in the past decade. The sustenance of the dynamics of the internal market was based on the growth of the real wages and was accompanied with the redistribution of incomes from enterprises to population. In the 4th quarter 2008 the growth rates of real wages made 102.5% and were the minimum since 2000. In 2008 the proportion of labor remuneration of employees in the GDP was somewhat below the figures of 2007. Comparative analysis of the formation of the GDP by incomes demonstrates that the proportion of the labor remuneration of the employees in the first and second quarters of 2008 roughly corresponded to the figures of analogue periods of 2007, but in the 3rd quarter the share decreased down to 42.1% (*Table 5*).

Table 5
Structure of GDP Formation by Incomes in 2006-2008, As Percentage to Total

	2007						2008				
	annu-	annu- quarters				annu-	quarters				
	al	1	2	3	4	al	1	2	3	4	
Gross domestic product including:	100	100	100	100	100	100	100	100	100	100	
labor remuneration of employees (including hidden)	46.3	49.5	47.4	43.1	44	46.6	49.1	46.3	42.1	49.9	
net taxes on production and import gross profit of economy and gross mixed incomes	18.7 35.4	19.5 31	19.2 33.4	18.1 38.8	19 37	20.4 35.0	19.7 31.2	21.0 32.7	20.5 37.4	20.1 30.0	

Source: Federal State Statistics Service

Only 8% of the working population account for the persons that do not work for wages – these are employers hiring employees to work at their enterprises on the permanent basis and self-employed persons. Correspondingly, this defined the specific features of formation of incomes of the population and the GDP. About 70% of the incomes of the population were accounted for by the labor remuneration of the employees, the proportion of the incomes from entrepreneurial activity and property reducing.

Low efficiency of the use of production factors is one of the main reasons for the decrease of the competitive advantages of the Russian goods. The broadening of the gap between the labor productivity rates and wages for the benefit of the latter (see inset below) had a negative influence on the qualitative indices of the economic dynamics.

There sustained a high differentiation of the wages by kinds of economic activities. In the industry the degree of the differentiation in wages was defined by the increase in the gap of the labor remuneration rates between the extractive and processing branches of industry. The nominal accrues wages in minerals extraction was 1.9 times higher than the average level in the economy, and in the fossil fuels extraction was 2.3 times higher. In the processing industry the wages were 94% of the average in the economy and 43% of the figure for the extractive production. The exceeding of the average figure for the accrued wages in the economy by 2.2 and 2.1 times was observed in oil products production and transportation of fossil fuels, correspondingly. In education, health care the average wages were 65-75% of the average in the economy, in the state management and provision of military security – 119%, in financial activity – 240%. The specific feature of labor remuneration by kinds of economic activities had a substantial influence on the formation of the structure of incomes and expenditures of the population, on the consumer demand of the population and on the distribution of the work resources in the economy.

The slow-down of the industrial growth rates defined the trend for the reduction of the average number of the industrial and production staff. According to the estimation of the Federal State Statistics Service, the number of economically active population was 75.8 million by the end of October 2008, or more than 53% of the total number of the population. Starting with July 2008 there has been a trend for the monthly growth of the unemployment observed. The total number of the unemployed in December 2008 was equal to 5.8 million of people or 7.7% of the economically active population and increased by 26.1% or by 1200 thousand of people as compared with the corresponding period of 2007.

The need for the employees claimed to the state employment services by the employers decreased by the end of 2008 as compared with the end of 2007 by 231.6 thousand of people, the number of vacancies at the end of December 2008 being 894.7 thousand of people. The tension coefficient (ratio of the unemployed citizens registered in the employment services per one vacancy) increased from 1.5 in December 2007 to 1.9 in December 2008.

Factors of Economic Growth, GDP and Added Value in the industrial Sector in 2005-2008

Below the results of the decomposition of the growth of the production index (GDP and added value) in 2005-2008, obtained in accordance with the methodology as stated in the IET

work ("Factors of Economic Growth"). The decomposition is based on the breaking the economic growth down to the extensive and intensive components, which enable estimating the quality of the growth and forecast further trends of the economic development. The presented results characterize the transformation of the structure of the economic growth enable highlighting the most important factors that define changes in the dynamics of output growth rates. The estimations are made in accordance with the differential form of the macroeconomic production function, which allows determining the contribution of the main factors (labor and capital) in the output growth and getting the residue that cannot be explained by the factors. This residue (usually interpreted as the TFE) includes the influence of the factors that were unaccounted for in the production function, most important of which are the fluctuations of the production efficiency and the changes in the price situation.

In concordance with the results of the decomposition (table 6) the reduction in GDP growth rates in 2008 is accounted for by the decrease in total factor efficiency against the background of negligible increase in the growth rates of the main factors.

In 2008 the influence of input of the main factors (accumulation of labor and capital taking into account the intensity of their use) on the GDP growth observed increased. Input of efficiency in GDP makes about 40% not taking into account prices for oil and after exclusion the estimation of the input of the price situation at the world markets of raw materials.

In 2008 on the whole throughout the economy the increase in the output was accounted for by the change in the volumes of the capital involved in the production by 49.4%. Despite the considerable level of deterioration of fixed assets sustained and reached 46.2% by the beginning of 2008, the growth of the investments in fixed assets in recent years allowed increasing the rates of the fixed assets renewal. According to the preliminary estimations, in 2008 input of this component in the dynamics of the growth made 27.8%. The intensity of the facilities utilization, in contrast, reduced, so the input in GDP growth rates defined by the change in the degree of the capital utilization, made only 21.6% in 2008, which is somewhat below the average figures for 2005-2007.

The increase in input of labor was also due to the change in "stocks", that is in the number of the employees: in 2008 the increase in the value of the index was $0.9\%^2$, which exceeds the average value of 2005-2007. It should be noted that the growth of the number of the employed occurred mainly thanks to the sector of services, whereas in the sector producing goods the employment reduced. At the same time in 2008 hours of work of one employee per year increased but slightly³, and the input of the change in the hours of work in GDP growth rates doe not exceed 1%.

In 2008 TFE growth rates made 2.37%, which is two times less than the level of 2007, when the corresponding figure was equal to 4.86%. Thus, on average over the period of 2005-2008 the annual reduction in TFE growth rates made 0.58 per cent (in accordance with the linear trend the growth rates reduce annually by 0.38 per cent)).

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¹ "Factory ekonomicheskogo rosta", seria Nauchnye trudy, No 70, IET, Moscow, 2003

² For estimation index of growth over January-November 2008 was used.

³ For calculations growth index over January-September 2008 was used. Taking into account the degree to which the crisis phenomena have spread at the labor market, the main instrument for whose adaptation to the changes in the market situation being the manipulation with the length of the hours of work, correction of 2008 decomposition taking into account the number of hours of work over the 4th quarter will result in the decrease in labor input in GDP growth rates.

In 2008 the input of TFE in output growth rates decreased as well, making 42.4% as compared with 2007, when the value of the index was equal to 56.9%. The dependence on the value of the indices used for the estimation makes estimations of TFE as well dependent on the factors of the situation at the market, for instance, on prices for oil. According to the preliminary estimations, in 2008 there was an increase in the input of price component in the GDP growth rates observed, which made 66.5% despite a considerable decrease in prices for oil that started in September. At the same time the input of the intensive component of the growth became negative for the first time since 2000.

In contrast to the economy on the whole, in minerals extraction there was an increase of GAV growth rates observed in 2008 as compared with 2007. In 2005-2008 the kind of activity "minerals extraction" was the only in the industrial sector to demonstrate the reduction in GAV growth rates by 0.1 per cent (in concordance with the linear trend 0.02 per cent). In accordance with the results of decomposition input of labor in output growth rates of this kind of economic activity has been positive since 2006, which is determined by the increase in the hours of work of the employees at the extractive enterprises. The input of capital in this kind of economic activity is increasing which is mainly due to the increase in productive facilities against the background of considerable fluctuation in the intensity of their utilization.

The dynamics of GAV of the extractive sector is distressing: the extractive enterprises are the only in the industrial sector to demonstrate the negative efficiency growth rates, starting with 2005. On average over the period of 2005-2008 the TEF growth rate of the extractive enterprises decreased by 0.61 per cent (by 1.52 per cent in accordance with the linear trend). At the same time in 2005-2007 there is an intensification of the trend for the decrease in the total efficiency of the main factors observed down to 12% in 2007. In 2008 the process of TEF decrease slowed down and the value of the index was 4.7%.

Table 6
Decomposition of Annual Growth Rates of GDP and Gross Added Value
of Industrial Production in 2005–2008⁴

		Including:									
	~~~	Input of		Inclu	ding:		Incl	uding:			
	GDP	factors	Labor	Number of employed	Hours of work*	Capital	Volume of fixed assets**	Degree of facilities utilization***	TFE		
Total through-	6.40	2.29	0.02	0.22	-0.20	2.27	1.17	1.09	4.11		
out economy	7.70	4.48	0.37	0.21	0.15	4.11	1.50	2.61	3.22		
	8.10	3.49	0.40	0.33	0.08	3.09	1.75	1.34	4.61		
	5.60	3.23	0.46	0.41	$0.05^{5}$	2.77	$1.56^{6}$	1.21	2.37		

⁴ For each kind of the economic activities the decomposition of the growth for 2005 is represented in the first line, for 2006 – in the second line, for 2007 – in the third line, estimated for 2008 – in the fourth line. Deviation form the data published earlier are due to the change in the data submitted by the Federal Statistics Service.

⁵ Annual estimation is based on the data for January-September 2008.

⁶ Preliminary estimation of the growth of the physical volume of fixed assets in 2008 is based on the supposition that the coefficient of the fixed assets retirement and the share of the investments direct for their renewal being constant.

⁷ Preliminary estimation of the changes in the degree of facilities utilization is based on the supposition that the share of the electric energy consumed in the amount of the electric energy produced is constant.

Minerals ex-	0.50	3.40	-0.66	-0.66	-	4.06	3.71	0.35	-2.90
traction	-3.30	-0.22	0.02	-0.12	0.14	-0.23	4.53	-4.76	-3.08
	-2.60	10.13	0.07	-0.08	0.14	10.07	5.39	4.68	-12.73
	0.20	4.94	0.20	$0.08^{8}$	0.13	4.74	4.74	-	-4.74 ⁹
Processing	6.00	5.17	-0.94	-0.94	-	6.11	2.31	3.80	0.83
industries	7.30	5.71	-0.23	-0.44	0.21	5.94	2.69	3.25	1.59
	7.80	6.02	0.30	0.07	0.23	5.73	3.21	2.51	1.78
	0.90	2.46	-0.52	-0.49	-0.02	2.97	2.97	-	-1.56
Electricity, gas	1.20	0.67	0.30	0.30	-	0.37	0.37	0.00	0.53
and water production and	5.70	0.87	0.41	0.28	0.13	0.46	0.46	0.00	4.83
distribution	-0.70	0.11	-0.69	-0.57	-0.12	0.80	0.80	0.00	-0.81
	1.20	0.18	-0.98	-1.39	0.41	1.16	1.16	-	1.02

^{* -} per one employee

The dynamics of the TFE of the extractive sector depends on the price situation at the world markets of raw materials. It should be noted that the apportionment of the component determined by the growth of oil prices from the TFE of this kind of economic activity testifies that the technological efficiency of the sector started to decrease at higher rates since 2005. Against the background of the favorable price situation at the world market of raw materials this indicated the worsening of technological characteristics of functioning of extractive enterprises, for instance with the implementation of fields characterized by lower efficiency, with the decrease in the quality of management in the environment of the changes in price situation. The drop of prices for oil at the end of 2008 was the cause for the decrease in the input of "price" factor in TFE of the extractive sector, and, as a consequence, the negative dynamics of the TFE "technological" component.

In 2008 the processing industries demonstrated the sharp slow-down of GAV growth rates: on average over the period 2005–2008 GAV growth rates of the sector decreased by 1.7 per cent (by 1.48 per cent in correspondence with the linear trend). In correspondence with the results of the decomposition for the whole period of 2005-2008 (with the exclusion of 2007) the decrease in the number of the employed at the processing enterprises defines the negative input of labor in output growth rates in this kind of economic activity. The growth of physical volumes of fixed assets secures a steady positive input of capital stocks in output growth rates, which in combination with the increase in the intensity of productive efficiency utilization defined the dominating role of the capital input, as a factor of economic growth of processing industry in 2005–2007. In 2008 there are changes in the structure of the of the added value of this kind of economic activity: increase in output of the processing enterprises

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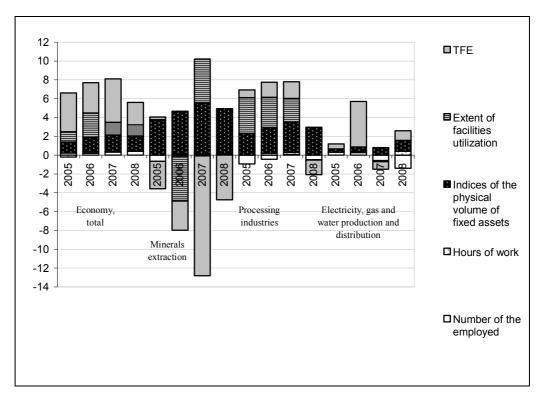
^{** -} for 2005–2007 on the basis of the data for physical volumes of fixed assets

^{*** -} estimation for the change in the degree of the facilities utilization on the whole throughout the economy is based on the data of the consumed electric energy, and in industrial production – on the data of the level of utilization of average annual productive capacity of the enterprises producing definite kinds of goods

⁸Preliminary estimation of the growth rates for the number of the employed is based on the data of the filled job vacancies in January-October 2008 on the supposition of the ratio of the employed by kinds of economic activities to the number of the vacant positions filled being constant.

⁹ The estimation of the TFE in industrial production in 2008 may be biased because of the on changes in the extent of the facilities utilization by the enterprises of these kinds of economic activities were not taken into account.

is completely defined by the changes in capital input, whereas input of labor and TFE lead to the slow-down of this growth (Fig. 5).



*Note*. In 2005 the break-down for the industrial production was carried out not taking into account the hours of work because of the absence of the data.

Fig. 5. Structure of Gross Added Value on the Whole Throughout Economy and in Industrial Production in 2005–2008

As a result of 2008 it is the electricity, gas and water production and distribution that demonstrates the increase in GAV growth rates being equal to 3.1% versus 2007. It should be noted that in 2005-2006 the output growth rates of this kind of economic activity demonstrated the most successful dynamics characterized by the increase in growth rates. In 2008 against the background of the growth of the volume of fixed assets and the work hours by the employees small values of the main factors input growth rates are accounted for by the decrease in the number of the employed at the enterprises of this kind of economic activity, thus in 2008 input of the main factors in GAV growth rates of the enterprises on electricity, gas and water production and distribution does not exceed 15% and the increase in production is determined exclusively by the increase in TEF growth rates.

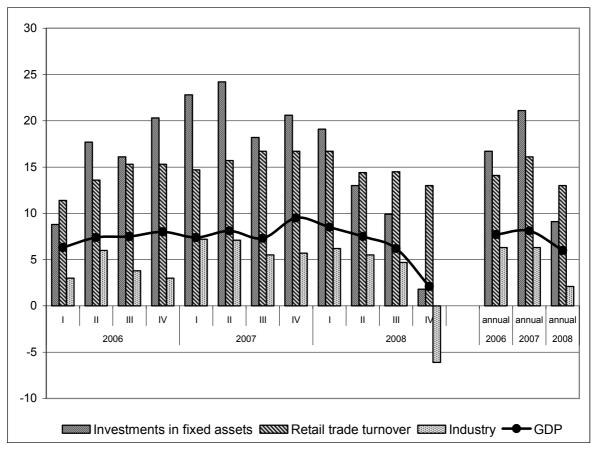
In the industrial sector the structure of TFE is uneven: as a continuation of the trend for the slow-down of the efficiency rates that outlined in 2005-2007, in 2008 the enterprises of the extractive and processing sector demonstrate the reduction of TFE; at the enterprises for electricity, gas and water production and distribution, in contrast, there is an increase in TFE growth rates observed, it acting as a dominating factor that defines the growth of this sector of industry.

### Dynamics and Structure of production by Kinds of Economic Activities

There are two periods that can be distinguished in the development of the Russian economy throughout 2008 (*Fig. 6*). Thus, whereas in the first half of 2008 the situation was defined by the influence of the inertia factors and trends of the economic growth that had outlined in 2007-2006, starting with the second half of the year the nature of the development was more and more affected by the situation at the global financial markets and intensive decrease in the level of prices and demand at the world market of minerals, raw materials and commodities.

In 2008 the slow-down of the development rates was observed in nearly all kinds of economic activities. Macroeconomic situation was formed against the background of a sudden slow-down of the growth rates of the investments in fixed assets, workload in construction, output of industrial production, the retail trade turnover remaining at quite a high level. First, the slow-down of production rates was registered in the kinds of economic activities orientated at the export, and further it spread to processing industries, whose development had been characterized with higher growth rates in recent years.

The domestic production reacted to the reduction of the investment activity and the contraction of the internal and external demand by the decrease in the producers' prices by 20.9% in the 4th quarter as compared with the 3rd quarter 2008. Under the influence of the dramatic drop in the world prices for energy carriers and mineral products producers' prices in the sector of minerals extraction reduced by 5.4% in the 3rd quarter 2008 as compared with the preceding and quarter, and by 44.9% in the 4th quarter. On the whole over 2008 the decrease in prices in minerals extraction made 38.4%. In December 2008 producers' prices in fossil fuels extraction made 57.8% of the level of last December the prices growing by 1.58 times over the same period. A sharp decrease in prices was accompanied by the reduction in production's profitability and resulted in the consideration of the corporate investment programs, interruption of production and reduction in the number of employees. According to the estimation, in 2008 the growth of gross added value was 0.2% in minerals extraction, 0.9% in processing industries, 1.2% in electricity, gas and water production and distribution (*Table 7*).



Source: Federal State Statistics Service

Fig. 6. GDP, Investments in Fixed Assets, Retail Trade Turnover, Industrial Production Growth Rates in 2006-2008, As Percentage to Corresponding Quarter of Previous Year

Table 7

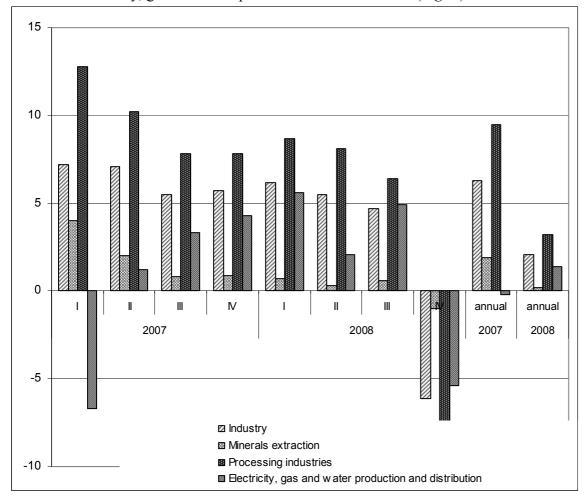
Dynamics of Physical Volumes of GDP and Gross Added Value As Broken By Kinds of Economic Activities in 2007-2008, As Percentage to Corresponding Period of Previous Year

			2007				2008	3	
_	annual		quai	rters		annual		quarters	
	annual	I	II	III	IV	annual	I	II	Ш
Gross added value	108.1	107.4	108.1	107.3	109.5	105.6	108.5	107.5	106.2
including:	102.6	102.4	102.8	102.6	104.6	108.4	103.2	103.2	106.3
agriculture, hunting and									
forestry									
fishing and fish-breeding	100.6	104.6	87.7	104.8	115.5	96.8	100.0	120.2	87.7
minerals extraction	97.4	102.4	97.4	98.7	103.0	100.2	101.5	99.0	99.6
processing industries	107.8	108.5	107.4	106.8	107.2	100.9	107.6	105.6	104.9
electricity, gas and water	99.3	90.1	99.6	101.4	103.4	101.2	105.3	101.7	104.0
production and distribu-									
tion									
construction	109.3	128.1	119.6	111.4	113.0	113.2	128.3	118.7	109.3
wholesale and retail trade	113.7	111.1	113.2	113.2	114.0	108.4	111.9	111.7	108.4
hotels and restaurants	114.9	112.7	112.1	109.8	113.7	109.9	111.7	108.8	109.3
transportation and com-	103.4	108.7	108.4	107.1	106.6	106.9	109.8	109.4	106.5
munication									
financial activity	112.5	111.1	111.5	111.4	111.8	106.6	109.7	109.7	107.9
operations with real estate	120.2	107.0	108.5	111.3	113.3	110.3	109.1	108.1	109.7

			2007		2008					
_	1		qua	rters			quarters			
	annual	I	II	III	IV	annual	I	II	III	
state management, provi- sion of military security, compulsory social guaran-	103.9	107.8	108.2	107.1	107.8	103.5	103.7	102.9	103.2	
tees	101.2	100.0	101.0	101.0	101.2	100.7	100.2	101.0	100.2	
education	101.2	100.9	101.0	101.0	101.2	100.7	100.2	101.0	100.2	
health care and social ser- vices rendering	102.7	103.3	103.1	102.3	102.6	100.5	101.1	100.7	101.6	
rendering of other utili- ties, social and personal services	107.4	110.6	111.4	111.2	107.9	103.8	105.9	106.5	103.1	

Source: Federal State Statistics Service

On the whole over 2008 the growth rates of the industrial production remained in the field of positive values, being 100.2% in minerals extraction, 103.2% in processing industries, 101.4% in electricity, gas and water production and distribution (*Fig. 7*).



Source: Federal State Statistics Service

Fig. 7. Change in Production Growth Rates as Broken By Kinds of Economic Activities in 2007-2008, As Percentage to Corresponding Quarter of Previous Year

#### Extractive industries

It should be noted that the trend for the slow-down of the growth rates of the fossil fuels extraction lasting for a long time, even taking into account the extremely favorable situation at the world market, the results of the first half of 2008 demonstrated the stagnation of the output. Prices at the world market of hydrocarbons changing, since August 2008 there was a sharp drop in fossil fuels extraction rates observed in terms of both the value and physical volumes. Starting with autumn 2008 the situation in the extractive sector was aggravated by the contraction of the demand and the decrease in prices for raw materials for metallurgy and for its production at the world market, intensified contraction of the internal market under the influence of the drop of production in machine-building and construction complexes. The slow-down of growth rates has been observed since the second half of 2007, but, the investment activity remaining high, external economic situation being favorable, this did not cause serious grounds for negative forecasts.

#### Oil and Gas Sector

Oil and gas sector is the basis for the Russian economy, playing a leading role in the formation of state budget earnings and trade balance of the country. The price situation at the world markets as well as an objective worsening of conditions for oil and gas production, decrease in its production at "old" oil fields and the higher costs connected with the development of new ones, especially in the undeveloped regions lacking infrastructure had a determining influence on the position of the oil and gas sector in the Russian economy in 2008.

World prices in 2008 were at an exceptionally high level, exceeding USD 100 per barrel (*table 8*). In July 2008 average monthly prices for oil reached unprecedented maximum in both nominal and real terms. The main factors contributing in the growth of prices were increased demand for oil due to high world economy growth rates, in particular the economies of China, India and other Asian countries, conservative politics of OPEC concerning the increase in oil production by member countries, as well as low growth of oil production in the countries that are not OPEC members. The decrease in growth rates of oil production in Russia and the reduction of oil production in the oil fields of the North Sea has also had a considerable influence on the dynamics of oil production in recent years. Another serious factor contributing in the increase of oil process at the world market was the inflow of speculative capital at the trade exchanges. In September-December 2008 the slow-down of the economy growth, reduction of demand for oil in the developed countries and outflow of capital from he trade exchanges resulted in a considerable drop in the world prices for oil. According to the data of the OECD International energy agency, in the 4th quarter 2008 the reduction of the demand for oil in OECD countries reached 5.2% versus the corresponding period of the previous year (*table 9*).

Despite a considerable decrease in price over the last months of the year the average price for oil in 2008 (USD 97 per barrel for oil grade Brent) is exceptionally high not only for the period of the post-reform development of the Russian economy, but also from the point of view of historic retrospective. The level of world prices for oil that can be compared with the present has only been observed in 1979-1980 since 1900, when the average annual price for oil grade Brent in real terms was equal to USD 90.7-93.1 per barrel (in prices of 2007), the prices in nominal terms being USD 31.6-36.8 per barrel. For reference it could be noted that in 1998 average annual price for oil grade Brent was USD 16.7 per barrel. In real terms in 2007 prices

(USD 12.7 per barrel in nominal terms), and the average price for 1990-ies was USD 25.9 per barrel.

 ${\it Table~8}$  World Prices for Oil in Nominal Terms in 2000–2008, as USD per barrel

	2000	2001	2002	2003	2004	2005
Price for oil grade Brent,	28.5	24.4	25.0	28.8	38.2	54.4
Great Britain						
Price for oil Urals, Russia	26.6	23.0	23.7	27.0	34.5	50.8
Price for oil basket of OPEC	27.6	23.1	24.3	28.1	36.1	50.6
member countries						

Table 8 (continuation) 2008 2008 2008 2008 2006 2007 quarter 2 quarter 3 quarter 4 quarter Price for oil grade Brent, 65.2 72.5 114.8 97.0 Great Britain Price for oil Urals, Russia 61.2 69.4 93.3 117.5 113.2 54 1 94.5 Price for oil basket of OPEC 61.1 69.1 92.7 117.6 113.5 52.5 94.1 member countries

Source: OECD International Energy Agency, OPEC.

Table 9
World Demand for Oil in 2008, as percentage to the corresponding period of the previous tear

	2008	2008	2008	2008	2008
	1 quarter	2 quarter	3 quarter	4 quarter	2000
Over the world, total	0.8	0.7	-0.6	-2.5	-0.4
OECD countries including:	-1.7	-2.0	-4.6	-5.2	-3.4
Northern America	-3.3	-3.5	-7.1	-5.2	-4.8
Europe	0.1	-0.2	-0.1	-2.9	-0.8
Asia-Pacific region	-0.5	-0.7	-5.0	-9.2	-3.9
non-OECD countries including:	4.2	4.3	4.6	1.0	3.5
China	7.1	2.9	7.2	0.1	4.3

Source: OECD International Energy Agency.

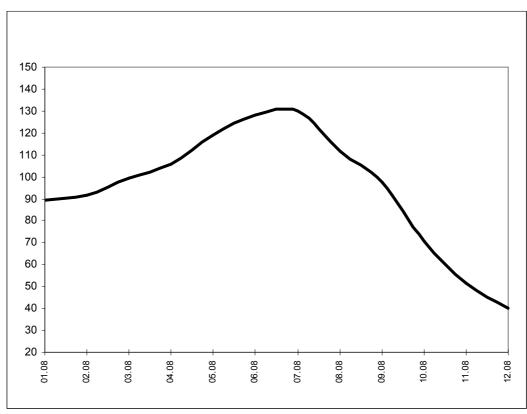
Monthly dynamics of world prices for oil in 2008 was characterized by an unsteady growth till July 2008, when the maximum level of oil prices was reached and the following sharp decrease starting with August 2008. By the end of the year the price for Russian oil at the world market lowered to USD 39.9 per barrel, that is it dropped by more than two thirds as compared with the level of July. The data on the monthly dynamics of the world prices for oil in 2008 are presented in *Table 10* and *Fig. 8*.

	2008	2008	2008	2008	2008	2008
	January	February	March	April	May	June
Price for oil grade Brent, Great Britain	92.0	95.0	103.7	109.0	122.7	132.4
Price for oil Urals, Russia	89.4	91.4	99.2	105.7	118.8	128.1

*Table 10 (continuation)* 

	2008	2008	2008	2008	2008	2008
	July	August	September	October	November	December
Price for oil grade Brent, Great Britain	133.2	113.0	98.1	71.9	52.5	40.4
Price for oil Urals, Russia	130.1	111.9	97.5	70.8	51.5	39.9

Source: OECD International Energy Agency, OPEC.



Source: Ministry for Trade and Economic Development of the Russian Federation.

Fig. 8. Price for Oil Grade Urals in 2008, as USD per barrel

In the environment of the sharp decrease in the world prices for oil the OPEC has adopted a number of resolutions on reduction of oil production by member countries in order to support prices for oil. In September 2008 the OPEC decided to adhere to the quota of September 2007 corrected taking into account the joining of Angola and Ecuador to the cartel but not including Iraq and Indonesia¹⁰, which decreased the volume of oil production by the member countries by 520 thousand of barrels as compared with July 2008. In October 2008 the OPEC adopted the resolution on reduction of the production by 1.5 million of barrels a day on the level of September 2008 starting with 1 November 2008. In December 2008 the decision on the reduction of oil production by 4.2 million of barrel per day as on the level of September starting with January, 1 2009.

-

¹⁰ Indonesia became netto exported of oil in 2008 and declared its withdrawal from OPEC. From 2009 Indonesia is not a member of OPEC.

These decisions did not, however, have any visible effect on the market. This is due to both the incomplete fulfillment of the liabilities taken by the OPEC member countries and the decrease in demand for oil in the developed countries in the environment of the started recession.

The increase in oil production in Russia of the first half of 2000-s (*Table 11*) was connected with the expansion of the opportunities for its export, in particular in connection with the creation of Baltic pipeline system and the use of railway transportation, intensification of exploitation of oil fields currently in operation and the broadening of investment opportunities for oil producing countries as a result of the growth of the world priced for oil. In recent years the oil production growth rates in Russia have decreased considerably. Whereas in 2004-2006 increase in oil production made 9-11% a year, in 2006-2007 the annual increase was equal only to 2.1%, and in 2008 there was a decrease in oil production observed for the first time (*Table 12*). This indicates the exhaustion of reserves for oil production at the expense of intensification of the exploitation of the oil fields in operation and testifies the necessity to develop new oil fields more actively.

Oil processing has been growing at higher rates than oil production in recent years, which was accounted for by the fast growth of oil products export. In 2005-2008 the growth rates of primary oil processing made 3.2-6.2%, oil production growing at the rate of 2.1-2.2% in 2005-2008 and decreasing by 0.7% in 2008. As a result the proportion of oil processing in its production has increased from 42.5% in 2004 to 48.4% in 2008, which is nevertheless below the level of 2000-2001, when more than a half of the oil produced was directed for processing.

At the same time the extent of oil processing has increased but little and was equal to only 72% in 2008, whereas in the leading industrial countries it reaches 90-95%. The efficiency of oil processing and quality of the oil products made in Russia remain substantially below the world level.

Table 11
Production and Processing of Oil and Production of Gas
in Russian Federation in 2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Oil production, gas condensate included, as million of tons	323.2	348.1	379.6	421.4	458.8	470.0	480.5	491.3	488.5
Primary oil processing, as million of tons	173	179	185	190	195	208	220	229.0	236.3
Proportion of oil processing in its production, as percentage	53.5	51.4	48.7	45.1	42.5	44.3	45.8	46.6	48.4
Extent of crude oil. processing, as percentage	71	71	70	70	71	71.6	71.9	71.7	72.0
Natural gas production, as billion of cu m	584.2	581.5	594.5	620.3	634.0	636.0	656.2	654.1	664.9

Source: Federal State Statistics Service, Ministry for Power Industry of the Russian Federation

In 2002-2008 the natural gas production was characterized by slow growthwith the exception of 2007 when the decrease in its production was observed (0f 0.8% as compared with 2006). The main reason for the reduction in gas production in 2007 was the decrease in the external demand for it, and, correspondingly, its export under the influence of warm winters as well as the increase in prices for gas supplied in CIS countries.

Table 12
Oil, Oil Products and Natural Gas Production in 2002-2008, as percentage
on the previous year

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Oil, gas condensate included	106.0	107.7	109.0	111.0	108.9	102.2	102.1	102.1	99.3
Primary oil processing	102.7	103.2	103.3	102.7	102.6	106.2	105.7	103.8	103.2
Car petrol	103.6	100.6	104.9	101.2	103.8	104.8	107.4	102.1	101.8
Diesel oil	104.9	102.0	104.7	102.0	102.7	108.5	107.0	103.4	104.1
Furnace oil	98.3	104.2	107.1	100.3	97.8	105.8	104.5	105.2	101.9
Natural gas	98.5	99.2	101.9	103.4	101.6	100.5	102.4	99.2	101.7

Source: Federal State Statistics Service

In 2008 the biggest amount of oil was produced by oil companies Rosneft, LUKOIL, TNK-BP, Surgutneftegas and Gazprom. The share of these 5 companies is 77.4% of the total oil production in the country. The share of the medium-scale companies (Tatneft, Slavneft, Russneft, Bashneft) accounted for 14.7% of the total oil production. Production share agreement operators produced 2.5% of the Russian oil in 2008. The share of other producers, to which more than 100 small scale oil producing enterprises belong, was only 4.9% of oil production in the country (*Table 13*)

Table 13
Oil Production By Different Oil Companies in 2006–2008

	Oil produc- tion in 2006, mln of tons	Share in the total production,%	Oil produc- tion in 2007, mln of tons	Share in the total production,%	Oil production in 2008, mln of tons	Share in the total production,%
Russia - total	480.5	100.0	491.3	100.0	488.5	100.0
Rosneft	81.7	17.0	110.7	22.5	113.8	23.3
LUKOIL	90.4	18.8	91.4	18.6	90.2	18.5
TNK-BP	72.4	15.1	69.4	14.1	68.8	14.1
Surgutneftegas	65.6	13.7	64.5	13.1	61.7	12.6
Gazprom+Gazpromneft	46.1	9.6	45.8	9.3	43.4	8.9
Of which:						
Gazprom	13.4	2.8	13.2	2.7	12.7	2.6
Gazpromneft	32.7	6.8	32.6	6.6	30.7	6.3
Tatneft	25.4	5.3	25.7	5.2	26.1	5.3
Slav-neft	23.3	4.8	20.9	4.3	19.6	4.0
YUKOS	21.5	4.5	-	_	-	_
RussNeft	14.8	3.1	14.2	2.9	14.2	2.9
Bashneft	11.7	2.4	11.6	2.4	11.7	2.4
NOVATEC	2.6	0.5	2.6	0.5	2.7	0.6
Operators of production share						
agreements	5.1	1.1	13.8	2.8	12.0	2.5
Other producers	19.9	4.1	20.7	4.2	24.1	4.9
State-owned companies - total:						
Rosneft+Gazprom+Gazpromneft	127.8	26.6	156.5	31.9	157.2	32.2

Source: Ministry for Industry and Power, author's calculations.

The increase in the state-owned companies influence in the oil sector was quite characteristic trend for the recent years. The positions of the state-owned companies strengthened considerably due to the purchase of private-owned companies assets. In 2004 oil company Rosneft purchased Yuganskneftegas, the main oil producing enterprise of YUKOS, in 2005 Gazprom purchased oil company Sibneft. In 2006 Gazprom purchased controlling stock in "Sakhalin-2" project, which is being fulfilled by foreign investors on conditions of production share agreement. In 2007 the share of state-owned companies at the market increased due to the purchase of the remaining oil producing and oil processing assets of YUKOS – enterprise was declared bankrupt in 2006 - by Rosneft.

As a result of such redistribution taking place Rosneft became the biggest oil company of the country and the share of state-owned companies (in federal property) in all-Russian oil production reached 32.2% in 2008. Taking into account companies controlled by the subjects of the Federation (Tatneft, Bashneft), the share of the state companies in oil production made 39.9%. For reference it could be noted that in 2003 the share of Rosneft and Gazprom in all-Russian oil production accounted for only 7.2%, and the total share of state companies, raking into account Tatneft and Bashneft, made 16.1%.

Gazprom, whose share in all-Russian production was equal to 83.2% in 2008, commands as usual the gas production (*Table 14*). The share of the oil companies in gas production remains quite low (8.2%). At the same time the share of NOVATEK company, production share agreement operators and other producers in gas production has increased.

Table 14

Gas Production By Various Producers in 2007–2008

	Gas production in 2007, bln of cu m	Share in the total production, %	Gas production in 2008, bln of cu m	Share in the total production, %
Russia - total	654.1	100.0	664.9	100.0
Gazprom+Gazpromneft	551.9	84.4	553.1	83.2
Of which: Gazprom	550.1	84.1	550.9	82.9
Oil companies	56.9	8.7	54.8	8.2
NOVATEC	28.5	4.4	30.8	4.6
Operators of production share agreement	6.7	1.0	8.5	1.3
Other producers	10.1	1.5	17.6	2.6
State-owned companies - total: Rosneft+Gazprom+Gazpromneft	568.9	87.0	566.1	85.1

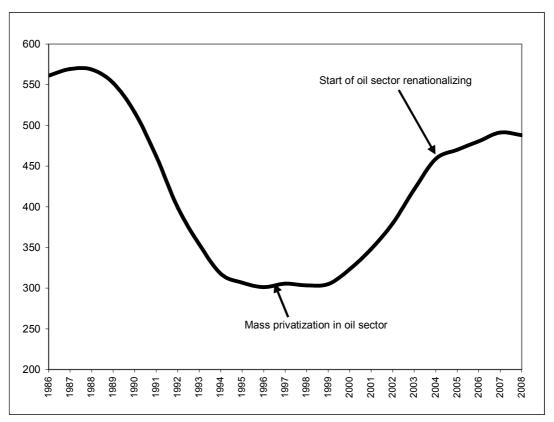
Source: Ministry for Industry and Power, author's calculations.

Data on oil production by oil companies demonstrate that increase in oil production in Russia even in 2007 was mainly due to a considerable growth of oil production by projects of production share agreement operators and primarily by the project Sakhalin-1. Not taking into account production share agreements projects the increase in oil production in Russia was equal only to 0.4% in 2007. In 2008 the production of oil demonstrated the negative dynamics: as compared with the previous year it reduced by 0.6%.

Decrease in oil production growth rates is primarily accounted for by the objective worsening of the conditions for its production. A considerable part of the oil fields currently in operation is at the stage of the decreasing production and new oil fields in most cases are characterized by worse mining and geological conditions, their development requiring higher capital, exploitation and transportation costs. At the same time the existing taxation system does not provide necessary decrease in the taxation load when developing new fields with higher costs, which limits the investments in new projects. As a result the investments made do not provide the increase in oil production that would compensate the decrease in its production at "old" oil fields.

The government expansion in the oil sector has obviously somewhat influenced the dynamics of the investments in recent years as well, contributing in the growth of apprehensions on further uptake of the private business and, as a result, the lowering of stimuli for long-term investments at oil companies. At the same time the state companies are limited in their investments amounts by the necessity to make huge repayments for credits attracted by them to purchase new assets.

It can be supposed that the instability of property relations having affected negatively the dynamics of investments in the branch was one of the factor for the decrease in oil production observed in the country (*Fig. 9*).



Source: Federal State Statistics Service

Fig. 9. Oil Production in Russia in 1986–2008, as million of tons

Against the background of production decrease in 2008, for the first time over the recent years there has occurred a reduction in physical volumes of oil export (*Tables 15* and *16*). Net oil and oil products export was equal to 358.1 million of tons in 2008 and decreased by 2.5% as compared with the previous year. The share of the net oil and oil products export in oil production was 73.3%. Net oil export in 2008 made 49.3% of its production. In 2008 the share of export in furnace fuel production was 83.0%, in diesel fuel production – 54.2%, in car petrol production – 12.5% (for reference: in 1999 the share of export in car petrol production was 7.2% in 1999, 18.5% in 2005, 18.3% in 2006, 17.1% in 2007).

In 2008 there was an increase in oil products import observed, though the share of import in the covering of the internal demand remained low. Thus, in 2008 the share of import in petrol resources was 0.7% (for reference: the share of import in petrol resources was 8.7% in the first half of 1998, 0.02-0.04% in 2005-2007). The same figure for diesel fuel and furnace fuel was 0.4-0.5%.

Table 15
Oil, Oil Products and Natural Gas Export from Russia in 2002-2008,
As Percentage on the Previous Year

	2002	2003	2004	2005	2006	2007	2008
Oil, total	113.9	117.8	115.0	98.4	98.0	104.0	94.0
including:							
to non-CIS countries	109.9	118.9	116.3	99.1	98.0	104.8	92.6
to CIS countries	137.3	112.4	108.3	94.9	98.0	99.4	102.6
Oil products, total	118.5	103.6	105.5	117.9	106.3	108.0	105.0
including:							
to non-CIS countries	119.1	102.6	104.9	119.1	104.5	107.6	102.0
to CIS countries	102.8	132.3	117.9	94.6	148.8	115.3	152.2
Gas, total	102.4	102.0	105.5	103.7	97.6	94.6	101.8

Source: Federal State Statistics Service

In the gas sector production was mainly orientated to the internal market. At the same time in 2008 some increase in gas export was observed (by 1.8% after is decrease by 5.4% in 2007). The proportion of the net export in gas production in 2008 made 28.3% (*Table 16*).

Table 16

Ratio of Energy Supplies Production, Consumption and Export in 2000–2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Oil, mln tons									
Production	323.2	348.1	379.6	421.4	458.8	470.0	480.5	491.3	488.5
Export, total	144.5	159.7	187.5	223.5	257.4	252.5	248.4	258.4	243.1
Export to non-CIS countries	127.6	137.1	154.8	186.4	217.3	214.4	211.2	221.3	204.9
Export to CIS countries	16.9	22.7	32.7	37.1	40.1	38.0	37.3	37.1	38.2
Net export	138.7	154.7	181.3	213.4	253.2	250.1	246.1	255.7	240.6
Domestic consumption	123.0	122.9	123.5	129.8	124.2	123.1	131.2	124.1	130.4
Net export, as percentage to the	42.9	44.4	47.8	50.6	55.2	53.2	51.2	52.0	49.3
production									
Oil products, mln tons									
Export, total	61.9	70.8	75.0	78.4	82.1	97.0	103.5	111.8	117.9
Export to non-CIS countries	58.4	68.3	72.5	74.9	78.0	93.1	97.7	105.1	107.6
Export to CIS countries	3.5	2.5	2.6	3.5	4.1	3.9	5.8	6.7	10.3
Net export	61.5	70.5	74.8	78.2	81.4	96.8	103.2	111.5	117.5
Oil and oil products, mln tons									
Oil and oil products net export	200.2	225.2	256.1	291.6	334.6	346.9	349.3	367.2	358.1
Oil and oil products net export, as	61.9	64.7	67.5	69.2	72.9	73.8	72.7	74.7	73.3
percentage of oil production									
Natural gas, bln. cu. m									
Production	584.2	581.5	594.5	620.3	634.0	636.0	656.2	654.1	664.9
Export, total	193.8	180.9	185.5	189.3	200.4	207.3	202.8	191.9	195.4
Export to non-CIS countries	133.8	131.9	134.2	142.0	145.3	159.8	161.8	154.4	158.4
Export to CIS countries	60.0	48.9	51.3	47.3	55.1	47.5	41.0	37.5	37.0
Net export	189.7	176.8	178.3	180.5	193.5	199.6	195.3	184.5	187.9
Domestic consumption	394.5	404.7	416.2	439.8	440.5	436.4	460.9	469.6	477.0
Net export, as percentage to the	32.5	30.4	30.0	29.1	30.5	31.4	29.8	28.2	28.3
production									

Source: Federal State Statistics Service, Ministry for the Industry and Power, Federal Customs Service, IET calculations.

The share of oil products export having increased to some extent, the crude oil export, being 67.2% of the total export volume, still prevailed in the structure of oil export. It was the furnace fuel oil, which is used as a primary product in Europe for further processing, and diesel oil that consisted the main part of the oil products export. The main part of the energy supplies (84.3% of oil, 91.3% of oil products and 81.1% of gas) was exported beyond CIS countries.

As it is demonstrated by the analysis of the Russian oil export dynamics over the long period of time the increase of oil products share in oil export has been observed, growing from 18.2% in 1990 to 32.8% in 2008 (*Table 17*). In the environment of the sharp reduction of domestic oil consumption (according to our calculations it has decreased from 269.9 million tons in 1990 to 130.4 million tons in 2008, that is more than by half) the share of oil and oil products net export in oil production increased over this period from 47.7% to 73.3%.

**Net Export of Oil Products in 2002–2008** 

Table 17

	2002	2003	2004	2005	2006	2007	2008
Oil products net export, mln tons	74.8	78.2	81.4	96.8	103.2	111.5	117.5
The share of oil products in net export of oil and oil products, as	29.2	26.8	24.3	27.9	29.5	30.4	32.8
naraantaga							

Source: Federal State Statistics Service, Federal Customs Service, IET calculations

The given data testify that the export orientation of oil sector in comparison with the prereform period has considerably reinforced. It should be, however, taken into account that it is connected not only with the increase of the absolute export volumes, but also with a considerable decrease in the domestic oil consumption as a result of Russian economy market transformation. In recent years in the environment of fast economic growth the volumes of internal consumption of oil have been quite stable in the country, which gives evidence for the decrease in the oil capacity of the GDP in Russia.

Increase in world prices for oil determined considerable incomes growth in the oil sector of the economy (*Fig. 10* and *11*). In 2008 total earnings from oil and main kinds of oil products export (car petrol, diesel oil and furnace fuel oil) reached USD 228.9 billion., which exceeds the earnings from oil and oil products export in 2007 by 38.8% and is a record level over the whole post-reform period (*Table 18*). For reference it can be noted that the minimum level of oil export earnings was observed in the environment of world oil prices fall in 1998, when the export profit was only USD 14 billion.

Table 18
Oil and Oil Products Export Earnings in 2000–2007, USD bln

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Oil and main kinds of oil products	34.9	33.4	38.7	51.1	74.6	112.4	140.0	164.9	228.9
export earnings									

Source: calculated on the basis of the Federal State Statistics Service data

In 2008 the physical volumes of oil export decreasing by 6.0% as compare4d with the previous year, the export in value terms increased by 32.6% due to the growth of world prices for oil. As to the gas export in 2008, its value volume increased by 54.1% as compared with the previous year.

At the same time as a result of the drop of oil prices in the forth quarter of 2008 there was a considerable reduction in oil export earnings observed (*Table 19*).

Table 19
Oil and Oil Products Export Earnings in 2008, as USD billion

	2008	2008	2008	2008
	1 quarter	2 quarter	3 quarter	4 quarter
Earnings from the export of oil and main kinds of oil products	53.2	64.4	68.9	42.4

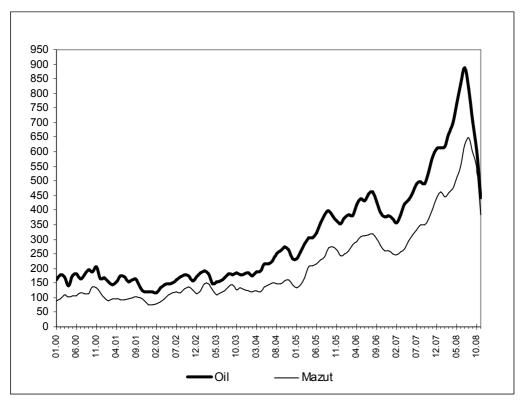
Source: calculated on the basis of Federal State Statistics Service

Under the influence of the increase in world prices for oil and gas the share of power and energy commodities in Russian export in 2008 reached 68.6%, of which crude oil accounted for 34.4% and natural gas – for 14.8%. (*Table 20*).

	2005		200	2006		2007		08
	USD bln	%*						
Fuel and Power commodities, total	154.7	64.1	196.9	65.4	225.6	64.0	321.1	68.6
of which: oil	83.8	34.7	102.3	34.0	121.4	34.4	161.2	34.4
natural gas	31.4	13.0	43.9	14.6	44.8	12.7	69.1	14.8

* as percentage to the total volume of Russian export

Source: Federal State Statistics Service

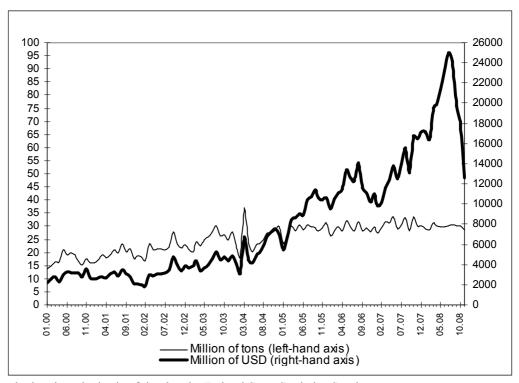


Source: calculated on the basis of the data by Federal State Statistics Service

Fig. 10. Average Prices for Oil and Furnace Oil (Mazut) Export in 2000–2008, as USD per ton

Under the influence of world prices for oil during the biggest part of 2008 there was a considerable growth of prices observed at the internal market (*Table 21*, *Fig. 12* and *13*). In summer 2008 the producers' prices for oil, car petrol, diesel fuel and furnace fuel reached the figures that were the maximum for the whole post-reform period. In July 2008 the average internal prices for oil (producers' prices) reached USD 410.2 per ton, and the average price for car petrol – USD 810.3 per ton. Internal prices for natural gas have also increased. The gas producers' prices reached USD 20 per 1 thou. cu. m in June 2008. Average price for gas pur-

chase in the industry, including both the gas production price and its transportation costs and trade and sales extra charge reached USD 97.4 per 1 thou. cu. m. In September-December 2008 under the influence of decrease in oil prices at the world market and the decrease in ruble exchange rate there has been observed a decrease in the internal prices for oil and oil products (producers' prices) in dollar terms.



Source: calculated on the basis of the data by Federal State Statistics Service

Fig. 11. Oil and Oil products Export in Natural and Value Terms in 2000–2008, million of tons, USD million

Table 21
Internal Prices for Oil, Oil Products and Natural Gas in Dollar Terms in 2000-2008
(average producers' prices as USD per ton)

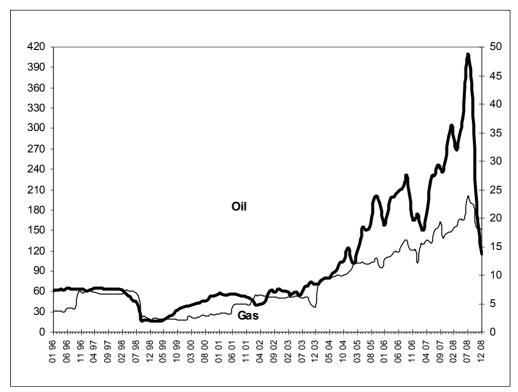
	2000	2001	2002	2003	2004	2005	
	December	December	December	December	December	December	
Oil	54.9	49.9	60.7	70.1	123.5	167.2	
Car petrol	199.3	151.5	168.8	236.9	333.1	318.2	
Diesel fuel	185.0	158.5	153.8	214.3	364.3	417.0	
Furnace fuel	79.7	47.1	66.1	66.0	69.4	142.7	
Gas, USD/1 thousand cu m	3.1	4.8	5.9	4.4	10.5	11.5	

*Table 21 (continuation)* 2006 2007 2007 2008 2008 2008 December July December December June June Oil 168.4 230.3 288.2 360.4 410.2 114.9 Car petrol 416.5 491.7 581.2 763.6 810.3 305.1 Diesel fuel 426.1 442.0 692.5 850.7 902.8 346.5 337.2 Furnace fuel 148.8 181.6 276.5 392.8 125.0 Gas, USD/1 thousand cu m 14.4 23.8 18.1 15.6 17.6

Source: calculated on the basis of the data of the Federal State Statistics Service

Internal prices for oil and gas in Russia still remain considerably below the world prices. The gap between world and internal prices is accounted for by the presence of export duty rate and additional transportation costs for export. The price for oil at independent internal market (segment of market at which the oil is sold not at transfer prices) in recent years is practically formed on the basis of its world price deduced by the export duty rate and expenditures for export. Internal prices for gas are still regulated by the state and established by the government

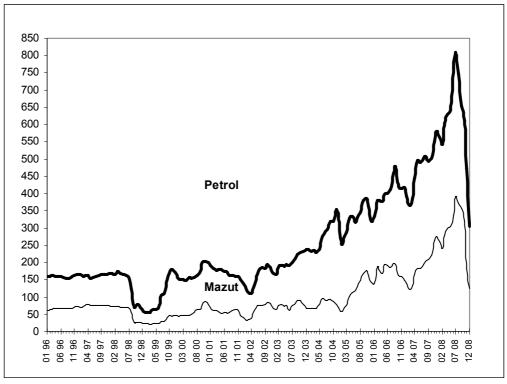
In forthcoming years a gradual increase in internal prices for gas up to the level securing the equal profitability of its sales at the internal and external market is envisaged. The gap between the world and internal prices for gas in this case will reduce, but the internal prices will remain below the world ones (by the value of export duty rate and transportation costs).



Source: calculated on the basis of Federal State Statistics Service data

Fig. 12. Average Producers' Prices for Oil and Gas as USD in 1996-2008, as USD per ton, USD per thousand of cu m

In 2008 a number of serious decisions concerning the improvement of the taxation of the oil sector of the economy were adopted. System of oil industry taxation, which was introduced in 2002, is based on severance tax, which is levied on flat specific rate (*Table 22*) and did not take into account existing differences in oil production conditions because of mining and geological characteristics of oil field, their location, as well as the stage of exploitation. As a result, oil production economy at oil fields with higher costs has been worsening, selective choice of the most effective reserves and pre-term cessation of exhausted fields has been encouraged. At the same time putting new fields with higher costs in operation, especially in the undeveloped regions with undeveloped or lacking infrastructure has been becoming more complicated.



Source: calculated on the basis of Federal State Statistics Service data

Fig. 13. Average Producers' Prices for Car Petrol and Furnace Oil (Mazut) As USD in 196-2008, as USD per ton

Severance Rate for Oil Production in 2002–2008

Table 22

	2002	2003	2004	2005	2006	2007	2008		
Severance base rate, RUR per ton	340	340	347	419	419	419	419		
Coefficient, characterizing the oil		(P-8)xR/252		(P-9)xR/261					
world prices dynamics (Cp)									

Key: P is the average price level for oil grade Urals in USD per barrel over the taxation period; R is the average over the taxation period value of USD to RUR rate exchange, which is fixed by the Central Bank of the Russian Federation

Source: tax Code of the Russian Federation, Federal Law No 151-FZ from July 27, 2006, Federal Law No. 33-FZ from May 7, 2004, Federal Law No. 126-FZ from August 8, 2001.

Imperfections of severance tax flat rate provoked the search of variants for differentiation of tax rate, taking into account real mining and geological, geographical differences in oil production conditions. In 2007 the system of oil production taxation was supplemented with new elements:

1. Step-down coefficient Ce to severance tax rate has been introduced for oil fields with exhaust of reserves of more than 80%. This coefficient is calculated according to some general formula and lies in the range from 1 (level of exhaust is 0.8) to 0.3 (level of exhaust is 1 or more).

2. Tax vacations from severance tax are introduced for oil fields in East-Siberian oil and gas province in the Republic Sakha (Yakutia), Irkutsk oblast, Krasnoyarsk krai. The oil fields situated in the regions will be subject to zero severance tax rates till 25 mln tons of accumulated oil production volume on the subsoil area is achieved or when period of exploitation is less than 10 years, or for 10 years for the license to use subsoil with the aim of exploration and for 15 years in case of the license for simultaneous geological exploration and oil production from the moment of the state registration of the license.

The severance zero rate for the period before reaching of 25 million tons of accumulated oil production volume on the subsoil area or the period of exploitation of less than 10 years, calculated from 1 January 2007, is also applied to all oil fields of these region in the process of development, if the extent of exhaust does not exceed 0.05.

3. Zero severance tax rate is established for superviscous oil fields.

These amendments adopted are aimed at the stimulation of the development of exhausted and new oil fields. Severance rate differentiation with regard to reserves exhaust enables to prolong exhausted fields development periods and increase oil extraction extent. The extension of exhausted fields exploitation provides extra in payments of severance (collected with the lowered rate) as well as other taxes (profit tax, export duties etc.). Severance rate reduction for new oil fields makes it possible to stimulate the development of East Siberia oil and gas province, create the basis for future income of the state budget.

At the same time passed amendments envisage that severance preferences for new and exhausted oil fields can only be received when applying a direct method of oil production quantity control at the subsoil area. As applied to exhausted oil fields, this regulation limits substantially the sphere of tax remissions application, for the majority of exhausted oil fields (licensed lots) have not got a direct control of oil production quantity. As a result, application of this privilege is rather limited, that is the task of stimulation and prolongation of exhausted fields exploitation is solved only partially and in limited scope.

The changes made did not solve also the task to stimulate by taxation new oil fields with higher costs development that are not a part of East-Siberian oil and gas province, that is located in other regions and on continental shelf. Higher capital, exploitation and transport costs lead to inefficiency of fulfillment of these oil fields development projects under general tax regime.

New oil fields are usually characterized by worse mining, geological and geographical conditions their exploitation requiring increase in capital, operating and transportation costs. At the same time existing taxation system does not provide necessary decrease of tax burden while exploitation of new oil fields with high costs that limits investments in new projects. Start of such oil fields development is connected with higher costs, especially in the undeveloped regions with undeveloped or lacking infrastructure and requires improvement of the existing system of oil sector taxation, pursuing of special tax policy, which provides necessary incentives for investments in oil production.

In 2008 the amendments to the Tax Code of the Russian Federation aimed at the reduction of tax burden on oil sector of the economy, stimulation of new and exhausted oil fields development in undeveloped regions and on the continental shelf were elaborated and adopted. The amendments come into effect on 1 January 2009. The most important among them influencing the economy of oil production are the following:

1. In the formula used for calculation of Cp coefficient, which characterizes the world oil prices dynamics and applied to the severance tax basic rate, the price minimum not levied with the tax was increased from USD 9 to USD 15 per barrel, the formula now being:

$$Cp = (P - 15) \times R / 261$$
,

where P is average level of oil grade Urals price in USD per barrel, R – average exchange rate of Us dollar against ruble, established by the Central Bank of the Russian Federation.

As it is demonstrated by calculations, change in Cp calculation formula inflation will lead to considerable decrease in the applied rate of severance tax on oil production. Owing to these factors, under forecast conditions for 2009 the severance tax rate in real terms will decrease by more than 25% as on 2007.

Such a decrease in severance tax rate will reduce tax burden on oil sector, allow oil companies to have additional financial resources to use, increase profitability of investments into development of new oil fields, will stimulate deeper exploitation of exhausted oil fields.

2. The requirement for application a direct method of oil production quantity control at the subsoil area for the established severance tax privileges to be used at oil fields with high level of exhaustion and at oil fields in East-Siberian oil and gas province (in the territory of the Republic Sakha (Yakutia), Irkutsk oblast and Krasnoyarsk krai) is abolished.

The opportunities to apply the established privileges for severance tax and primarily the deflation coefficient to severance rates at exhausted fields were substantially limited by the requirement for the application of a direct control of oil production quantity. Since taking technical steps to secure direct control over oil production at such oil fields is economically ineffective in the majority of cases, this prevented using the severance privilege, established for them, which led to pre-term cessation of their exploitation and loss of oil in subsoil areas.

Application of severance tax privileges on the basis of the system of oil production control currently in use at some subsoil plots will allow application of privileges at all exhausted oil fields, which will secure the prolongation of the period of their exploitation, additional oil production and extra tax earnings.

This will also allow application of severance tax privilege (tax vacations) at new small oil fields of East-Siberian oil and gas province and other privileged regions. The organization of the direct method for oil production at such oil fields is economically ineffective and they will remain undeveloped unless there is a severance privilege.

At the same time it should be noted that upon application of the existing system for the control over the quantity of oil produced the oil producing companies get some incentive for manipulating when distributing the volumes of oil produced among the separate licensed plots. Therefore the government has to secure necessary control over the reliability of such accounts.

3. For oil fields on the continental shelf of the Russian Federation, situated to the north of the Arctic circle zero severance tax rate is established up to achievement of oil production of 35 million of tons or for the period of 10 years for licenses for subsoil exploitation for exploration or for 15 years for licenses for subsoil exploitation to simultaneous exploration and minerals extraction from the date of government registration of the corresponding license. For subsoil plots situated in these areas licenses for which are given before 1 January 2009 and the level of whose exhaust does not exceed 0.05 zero severance tax rate is in effect till 35 million tons of oil production is reached or during 10 years, starting with 1 January 2009.

- 4. For oil fields situated in Azov and Caspian seas zero severance tax rate is established for the period until accumulated volume of oil production of 10 million tons is reached at a subsoil plot or for 7 or 12 years from the date of government registration of the license depending on the kind of license for subsoil exploitation. For subsoil plots situated in these areas licenses for which are given before 1 January 2009 and the level of whose exhaust does not exceed 0.05 zero severance tax rate is in effect till 10 million tons of accumulated volume of oil production is reached or during 7 years, starting with 1 January 2009.
- 5. For oil fields situated in the territory of Nenets autonomous okrug (the north of Timano-Pechor oil and gas province) and on the Yamal peninsula in Yamalo-Nenets autonomous okrug zero severance tax rate is established for the period until accumulated volume of oil production of 15 million tons is reached at a subsoil plot or for 7 or 12 years from the date of government registration of the license depending on the kind of license for subsoil exploitation. For subsoil plots situated in these areas licenses for which are given before 1 January 2009 and the level of whose exhaust does not exceed 0.05 zero severance tax rate is in effect till 15 million tons of accumulated volume of oil production is reached or during 7 years, starting with 1 January 2009.

The measures enumerated will stimulate deeper development of the exploited oil reservoirs and start of development of new oil fields.

### **Processing industry**

Throughout three quarters of 2008 the growth of the industrial production was of inertia nature and over January-September the increase in production volumes of processing industries made 107.7%, extractive industry growing by 0.5% and electricity, gas and water production and distribution – by 4.3%.

The situation changed radically in November 2008, when the negative dynamics for nearly all microindices had been registered for the first time for last three years. In the  $4^{th}$  quarter the reduction in the output of processing industries reached 7.7%, electricity, gas and water production and distribution – 5.4%, minerals extraction – 1%.

The potential of the idle facilities having been exhausted, the increase of the volumes of investments in fixed assets became one of the main factors for acceleration of the industry's growth rates. As a result, it was kinds of activities focused on the production of the goods of the investment demand that had the biggest influence on the maintenance of the dynamics of the processing industries production.

The dynamics of the processing industries is quite substantially differentiated by kinds of economic activities, the biggest influence being exerted by the ratio of production rates of investment and consumer goods ( $Table\ 23$ ). The fluctuations of growth rates by kinds of activities of processing industries being quite large, a dramatic drop in the output of machine-building production in November-December 2008 was the primary factor having a negative effect on the level of the business activity of adjacent industries of construction materials production and other kinds of goods of intermediate demand production. In the 4th quarter the production of machinery and equipment made 88% of the corresponding figure of the previous year, production of electric, electronic and optical equipment – 92.1% and transport vehicles and equipment production – 91.3%.

Table 23
Changes in Production Rates As Broken By Kinds of Activity of Processing Enterprises in 2007–2008, as percentage to the corresponding period of the previous year

·	2007						2008					
-	1	quarters					quarters					
	annual	I	II	III	IV	- annual	I	II	III	IV		
Processing industries	109.3	112.8	110.2	107.8	107.8	103.2	110.7	108.1	106.4	92.3		
Foodstuffs production, beverages and tobacco included	106.1	109.8	105.4	104.1	105.9	101.1	106.4	103.9	101.7	93.7		
Textile and sewing production	99.7	102.5	98.7	95.6	98.3	95.5	102.6	101.8	97.9	83.8		
Leather, leather goods and foot- wear production	99.9	109.9	107.1	94.1	90.7	101.7	106.6	108.5	105.1	92.9		
Wood processing and production of goods thereof	106.2	104.2	103.5	104.1	113.2	101.4	115.6	110.9	102.4	83.6		
Pulp-and-paper industry; publishing and printing	109.0	109.5	107.1	109.4	110.4	100.8	107.8	106.0	101.2	88.9		
Coke and oil products production	102.7	106.1	103.0	102.0	100.8	102.7	105.0	101.6	102.9	101.2		
Chemistry industry	106.1	108.3	105.3	106.6	104.3	95.8	103.7	103.1	101.8	78.5		
Rubber and plastic goods production	123.0	113.2	114.8	125.2	131.7	112.5	130.4	116.5	119.0	101.0		
Other non-metal mineral commodities production	110.8	123.3	110.0	107.8	105.6	99.1	108.6	109.1	100.2	86.4		
Metallurgy industry, production of finished metal goods	102.0	107.3	101.7	99.5	100.3	99.8	108.6	101.1	100.5	94.7		
Machinery and equipment production	119.3	126.0	125.6	116.2	111.5	104.0	116.4	105.4	111.6	88.0		
Electric, electronic and optic equipment production	112.8	117.1	121.2	101.7	109.7	92.1	93.3	91.3	98.9	87.0		
Transport vehicles and equipment production	115.9	117.0	113.3	119.1	112.7	109.5	114.4	119.1	116.4	91.3		
Other branches of industry	105.0	105.6	106.7	102.3	106.1	104.6	118.6	116.2	106.6	106.1		

Source: Federal State Statistics Service

Import continued to exert a significant influence on the dynamics and the nature of the development of machine-building. This is also connected with many kinds of machinery and equipment being non-competitive with the import analogues with respect to "price to quality" ratio, as well as with there being no facilities for production of modern kinds of equipment, which considerably limited the market of the domestic machine-building.

Influence of import differs considerably in various sectors of economy and goods markets. At the market of the investment machine-building the increase in import supplies was one of the main factors for the fulfillment of the investment projects, modernization of production and implementation of technological innovations. At the same time there was an intensified competition with the import observed, for instance, in such machine-building productions as machine tools construction, agriculture engineering, road equipment construction, motor vehicles production. Characteristic for these productions are low investment activity, high level of the fixed assets deterioration, outdate technologies. It is the active implementation of the assemblage mechanisms and the transfer of foreign companies' activity into the territory of Russia that is one of the promising directions for their development. The anticipating growth of output at the enterprises with the participation of the foreign capital changed the competitive conditions and stimulated the activity of the traditional structures. However these enterprises turned out to be most vulnerable in the environment of the crisis since there had been no radical measures undertaken to develop the production of componentry at the domestic enterprises for a long time. Taking into account the ramified system of inter-branch connections in machine building, in particular, in motor vehicles construction, a sharp drop in the production affected the adjacent productions, branches of infrastructure and had a painful effect on the level of the employment of the population.

In recent years the economic growth remained to be mainly of quantitative nature. This defined vulnerability of Russian economy in the environment of global changes of the prices and the situation at the world market.