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The review provides a detailed analysis of main trends in Russia's economy in 2009. 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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Russia's Oil and Gas Sector in 2009

Oil and gas sector remains the backbone of the Russian economy and produces the lion's share of the state budget revenues and of the trade balance. Acute oil price fluctuations which took place on the free market, reduction in demand for gas, as well as objective fall in the oil and gas extraction in Russia, cuts in their production on the old existing oil deposits and significantly larger costs required for the development of the new deposits especially in the undeveloped regions which lack any type of infrastructure had main impact on its development in 2009.

Dynamics of the World Prices for Oil and Gas in 2008–2009

In 2009 the world prices for crude oil remained under the effect of the global financial and economic crisis. In 2008 world prices for crude oil reached an exceptionally high level which exceeded 100 USD/bbl. In July 2008 average monthly price for crude oil exceeded 130 USD/bbl and reached its historical maximum both in the nominal and real terms. As a result of slump of prices at the end of the year, average price for oil constituted 97.7 USD/bbl (Brent) in 2008. Comparable level of prices in real terms was noted only in 1979-1980 when the average annual price for Brent in real terms (2008 prices) soared to 94.1-96.6 USD/bbl under rated value of 31.6-36.8 USD/bbl. For comparison it is possible to note that in 1998 the average annual price for Brent in real terms (2008 prices) constituted only 17.3 USD/bbl (12.7 USD/bbl in rated value) and on average in 1990s – 26.9 USD/bbl.

Principal drivers for price growth were: incremental demand for petroleum due to high rate of growth of the world economy, in particular, of the economies of China, India and other countries of Asia, conservative policy of OPEC in relation to the increase of oil production by its member countries, as well as sluggish growth of oil production of non-OPEC producers. Serious factor which contributed to the increase of the world prices for crude oil was a considerable inflow of speculative capital in the futures markets. Profound effect on the dynamics of the oil production during recent years was produced by the fall of growth rates in the oil production in Russia and fall of production volumes from oil deposits in North Sea. In September-December 2008 slowdown of growth rates of the world economy, reduction in demand for oil by the industrially developed countries and outflow of the investment capital from the futures markets determined a slump in the world oil prices (*Table 1*). According to the data provided by the International Energy Agency of OECD, in the fourth Q 2008 reduction in demand for oil in the OECD countries reached 5.1% against the corresponding period of the preceding year (*Table 2*).

Amid sharp reduction in the world oil prices in the second half of 2008, OPEC took a number of decisions aimed at cutting petroleum production in order to preserve oil prices at the stable level. In September 2008 OPEC took a decision to stick to the oil production quota at the level of September 2007 adjusted by the incorporation of Angola and Ecuador to the cartel

but without Iraq and Indonesia¹ which would have resulted in the cut of production volumes by 520 thousand barrels per day in comparison with July 2008. In October 2008 OPEC took a decision to further cut its production by 1.5 million barrels per day in relation to the level of September 2008 starting with November 2008. However, amid a reduction in demand for oil by the industrially developed countries and due to onset of the economic recession, as well as failure to fully meet commitments taken by the OPEC member countries regarding production cuts, these decisions failed to exert any influence on the free market. In December 2008 OPEC took a decision to cut production from 1 January 2009 by further 4.2 million barrels per day in relation to the level of September 2008.

In 2009 contraction in demand for crude oil by the industrial countries due to the global financial and economic crisis was compensated by the growth in demand by the developing countries, first of all by China², as well as by the production cuts by the OPEC member-states and by some other oil producing countries (Norway, Great Britain and Mexico). In the following months of the year positive effect on the dynamics of crude oil prices was produced by the recovery of economic growth posted by the leading industrially developed nations. As a result, world prices for crude oil went up from 40 USD/bbl in December 2008 to 73-77 USD/bbl in November-December 2009. In these circumstances at the conferences of OPEC which took place in March, May, September and December 2009 decisions were taken aimed at preserving production quotas for oil determined by the member-states and effective from 1 January 2009. In 2009 average price for Urals on the free market (European) averaged 61.0 in 2009 or 65% in relation to the average price level of the last year.

Table 1

World Prices for Oil in Nominal Terms in 2000–2009 (USD/bbl)

	2000	2001	2002	2003	2004	2005	
Price for Brent, Great Britain	28.5	24.4	25.0	28.8	38.2	54.4	
Price for Urals, Russia	26.6	23.0	23.7	27.0	34.5	50.8	
OPEC reference basket of crudes	27.6	23.1	24.3	28.1	36.1	50.6	
	2006	2007	2008 I Q	2008 II Q	2008 III Q	2008 IV Q	2008
Price for Brent, Great Britain	65.2	72.5	96.7	122.5	115.6	55.9	97.7
Price for Urals, Russia	61.2	69.4	93.3	117.5	113.2	54.1	94.5
OPEC reference basket of crudes	61.1	69.1	92.7	117.6	113.5	52.5	94.1
	2009 I Q	2009 II Q	2009 III Q	2009 IV Q	2009		
Price for Brent, Great Britain	45.0	59.1	68.4	75.0	61.9		
Price for Urals, Russia	43.7	58.1	68.0	74.3	61.0		

Source: IMF, OECD/IEA, OPEC.

Table 2

World Petroleum Consumption in 2008 (in % to the same period a year ago)

	2008 I Q	2008 II Q	2008 III Q	2008 IV Q	2008
World – total	1.1	0.9	-0.5	-2.7	-0.3
OECD countries	-1.6	-1.8	-4.6	-5.1	-3.3

¹ Indonesia has recently become net exporter of crude oil. In 2008 Indonesia announced about its withdrawal from OPEC and from 2009 it is no longer a member of this organization.

² Crude oil consumption by China in 2009 went up by 7.2% in comparison with 2008

Of which:					
North America	-3.3	-3.6	-7.5	-5.9	-5.1
Europe	0.4	0.7	0.4	-1.6	0.0
APR	0.0	-0.6	-4.9	-8.9	-3.6
Countries outside OECD	4.7	4.4	4.7	0.4	3.6
Of which:					
Asia (exclusive of the countries of Middle East)	5.7	2.8	3.5	-1.5	2.6
	2009	2009	2009	2009	2009
	Q	II Q	III Q	IV Q	
World - total	-3.4	-2.5	-0.7	0.4	-1.5
OECD countries	-4.9	-6.2	-3.5	-3.0	-4.4
Of which:					
North America	-5.1	-6.2	-1.3	-2.4	-3.8
Europe	-2.5	-5.6	-6.8	-5.0	-5.0
APR	-8.6	-7.2	-3.5	-0.7	-5.1
Countries outside OECD	-1.4	1.8	2.7	4.7	2.0
Of which:					
Asia (exclusive of the countries of Middle East)	-1.3	4.6	6.1	9.2	4.6

Source: OECD/IEA.

Monthly dynamics of the world price for crude oil in 2008 was marked by its sustainable growth right down to July 2008 when the crude oil price maximum was reached and by a slump of prices starting from August 2008. By the end of the year the price for Russian crude oil on the free market dipped to 39.9 USD/bbl, i.e. it declined by more than threefold in relation to the July level. In 2009 monthly dynamics of the world oil price was defined by rather stable growth. At the same time, during last months of the year crude oil price steadily exceeded 70 USD/bbl (see *Table 3* and *Fig. 1*). Depreciation of the US dollar exchange rate in relation to other currencies affected the dynamics of crude oil prices.

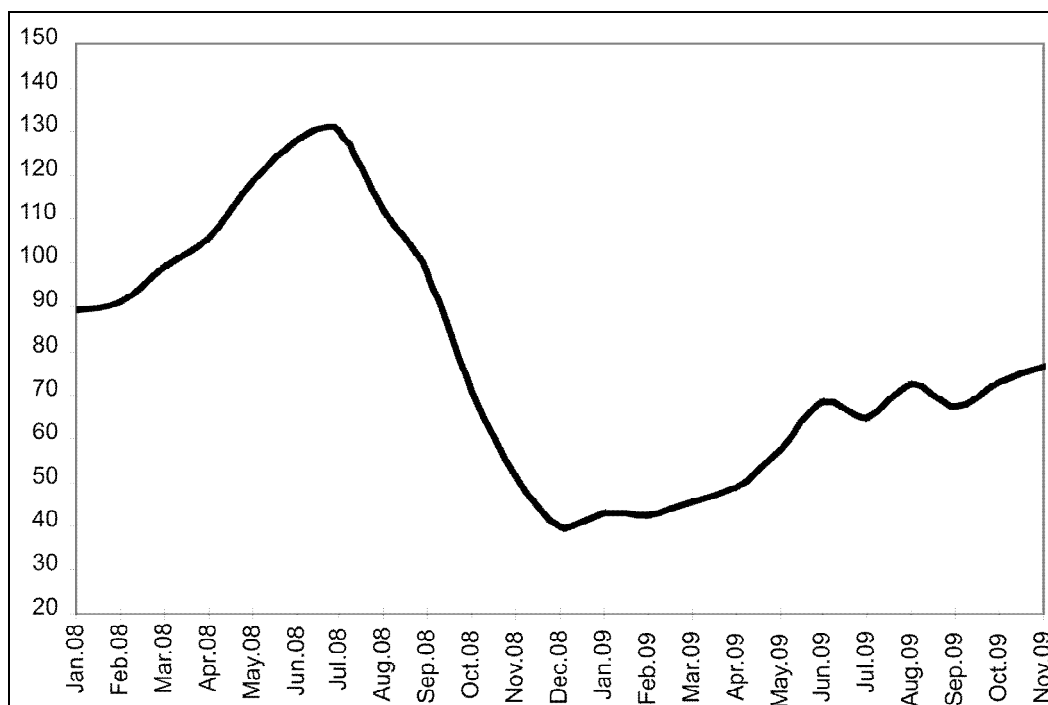
Revival of the world economy holds out a hope for maintaining of rather favorable for the Russian oil producers level of crude oil prices in the future. For instance, according to the latest IMF forecast the world crude oil price in 2010 will constitute on average 76.5 USD/bbl, and in 2011 – 82 USD/bbl. The US Department of Energy provides similar forecast. The RF Ministry of Economic Development and Trade is expecting a lower level of world crude oil prices (*Table 4*). Scenario with crude oil prices below 60 USD/bbl (conservative scenario) is considered, however, as less feasible one.

Table 3

World Prices for Crude Oil in 2008–2009 (USD/bbl)

	2008	2008	2008	2008	2008	2008
	January	February	March	April	May	June
Price for Brent, Great Britain	92.0	95.0	103.7	109.0	122.7	132.4
Price for Urals, Russia	89.4	91.4	99.2	105.7	118.8	128.1
	2008	2008	2008	2008	2008	2008
	July	August	September	October	November	December
Price for Brent, Great Britain	133.2	113.0	98.1	71.9	52.5	40.4
Price for Urals, Russia	130.1	111.9	97.5	70.8	51.5	39.9
	2009	2009	2009	2009	2009	2009
	January	February	March	April	May	June
Price for Brent, Great Britain	43.6	43.1	46.5	50.3	57.5	68.6
Price for Urals, Russia	43.2	42.5	45.3	48.9	57.1	68.4
	2009	2009	2009	2009	2009	2009
	July	August	September	October	November	December
Price for Brent, Great Britain	64.6	72.8	67.4	72.8	76.7	74.3

Source: OECD/IEA.



Source: the RF Ministry of Economic Development and Trade.

Fig. 1. Price for Urals in 2008–2009 (USD/bbl)

Table 4

Forecasts of World Prices for Crude Oil (USD/bbl)

	Date of publication of forecast	2010	2011
IMF: average world price for crude oil	26.01.2010	76.5	82.0
US Department of Energy: average price for oil imported to the US	12.01.2010	76.9	80.5
RF Ministry of Economic Development and Trade: price for Urals	30.12.2009	69	74
		65	70
		58	59

Source: IMF, U.S.DOE/EIA, the RF Ministry of Economic Development and Trade.

Prices for Natural gas on the free market, as a rule, are determined on the basis of the alternative to gas energy products such as gasoil/diesel oil and heating oil, which price levels depend on the level of world oil prices. That is why world prices for natural gas follow the world oil prices with certain lag. Price for Russian gas on the European market and the oil price reached its peak in 2008 and in 2009 also dipped (*Table 5*).

Table 5

World Prices for Crude Oil and Natural Gas in 2002–2009

	2002	2003	2004	2005	2006	2007	2008	2009
Average world oil price, USD/bbl	24.5	28.89	37.76	53.4	64.3	71.1	97.0	61.8
Price for Russian gas on the European market, USD/thousand cubic meters	96.0	125.5	135.2	212.9	295.7	293.1	473.0	318.8

Source: IMF.

Dynamics and Structure of Production and Processing in the Oil and Gas Sector in 2008–2009 and during Preceding Period

Growth of oil production in Russia in the first half of 2000s was due to the extension of its export capacity, and in particular due to construction of the Baltic pipeline system and the use of the railway transport system, and to the intensification of the development of existing oil deposits and capital expenditure expansion by the oil companies due to growth of world oil prices. In the following years rates of growth of crude oil production declined sizably. Where in 2002-2004 increment in oil production reached 8.9-11% annually, then in 2006-2007 annual increment constituted only 2.1%, and in 2008 for the first time over recent years there was a cut in oil production. This is an obvious sign of depleted resources needed for production enhancement by means of intensification of development of existing oil deposits and indicates the need to undertake urgent measures at developing new oilfields.

In 2009 growth in oil production in Russia recovered, although its increment was relatively low: in relation to a year ago increment in crude oil production averaged 1.2% (*Table 6, 7*). Positive effect on the dynamics of the oil production was produced by several new large oil deposits which were put into operation (in the north of European part of Russia and in Eastern Siberia), devaluation of the exchange rate of the ruble and coming into effect of a number of amendments to the RF Tax Code designed to reduce tax burden in the oil sector, stimulation of enhanced development of existing oilfields and development of the new oil deposits.

In the first half of 2000s intensive growth of production (on average by about 9% of annual increment) against the background of sluggish growth of primary processing (about 3% annually on average) has resulted in reduction in the refined oil's share of its production volume (from 53.5 to 42.5%). On the contrary, in 2005-2008 rates of increment of primary oil refining constituted 3.2-6.2% annually under the rates of increment of oil production at 2.1-2.1% in 2005-2007 and its decline by 0.7% in 2008. As a result, the share of refined oil in its production volume went up from 42.5% in 2004 to 48.4% in 2008. The volume of refined oil somewhat dipped (by 0.4%) in 2009. At the same time, processing depth of the crude oil during recent years was growing exceptionally slowly and in 2009 constituted only 72%; meanwhile in the leading industrially developed countries it comes up to 90-95%. Effectiveness of oil refining and quality of oil products produced in Russia as before remains significantly lower the world level.

Table 6

Production and Processing of Crude Oil in the Russian Federation in 2000–2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Oil production including gas condensate, mln t	323.2	348.1	379.6	421.4	458.8	470.0	480.5	491.3	488.5	494.2
Primary oil refining, mln t	173	179	185	190	195	208	220	229.0	236.3	236.0
Share of oil refining in its production, %	53.5	51.4	48.7	45.1	42.5	44.3	45.8	46.6	48.4	47.8
Processing depth of oilstock, %	71	71	70	70	71	71.6	71.9	71.7	72.0	72.0

Source: Federal service of state statistics, RF Ministry of Energy.

Table 7

**Production of Crude Oil, Oil Products and Natural Gas in 2000–2009
(in % to preceding year)**

	2000	2001	2002	2003	2004
Crude oil, including gas condensate	106.0	107.7	109.0	111.0	108.9
Primary oil refining	102.7	103.2	103.3	102.7	102.6
Gasoline	103.6	100.6	104.9	101.2	103.8
Diesel oil	104.9	102.0	104.7	102.0	102.7
Heating oil	98.3	104.2	107.1	100.3	97.8
Natural gas	98.5	99.2	101.9	103.4	101.6
	2005	2006	2007	2008	2009
Oil, including gas condensate	102.2	102.1	102.1	99.3	101.2
Primary oil refining	106.2	105.7	103.8	103.2	99.6
Gasoline	104.8	107.4	102.1	101.8	100.5
Diesel oil	108.5	107.0	103.4	104.1	97.7
Heating oil	105.8	104.5	105.2	101.9	100.8
Natural gas	100.5	102.4	99.2	101.7	87.9

Source: Federal service of state statistics.

In 2009 Rosneft, LUKOil, TNK-BP, Surgutneftegas and Gazprom were the largest petroleum producers in the country. The share of these five companies constituted 77% of the overall oil production in Russia. The share of medium size companies (Tatneft, Slavneft, Russneft and Bashneft) amounted to 14.2% of the overall oil extraction. The share of other producers which number over 100 small oil producing organizations accounted for only 5.3% (Table 8).

Distinctive feature of the recent years was the increased role of state companies in the oil sector which was due to takeover of private companies. In 2004 Rosneft took over major oil producing enterprise of YUKOS – Yuganskneftegas, and in 2005 Gazprom bought control of the Sakhalin-2 project which was implemented by foreign investors under the production sharing agreement. In 2007 the share of state companies in the oil sector went up when Rosneft bought control of the remaining oil producing and oil refining assets of YUKOS, which was declared bankrupt in 2006.

As a result of redistribution of assets in the oil sector, Rosneft has become the largest oil company in Russia, and the share of state (in the federal ownership) companies in the overall oil production has come up to 32%. For comparison it is possible to note that in 2003 the share of Rosneft and Gazprom in the overall oil production amounted only to 7.3%

Table 8

Structure of Oil Production in 2007–2009

	Oil production in 2007, mln t	Share in overall production, %	Oil production in 2008, mln t	Share in overall production, %	Oil production in 2009, mln t	Share in overall production, %
Russia – total	491.3	100.0	488.5	100.0	494.2	100.0
Rosneft	110.7	22.5	113.8	23.3	116.3	23.5
LUKOil	91.4	18.6	90.2	18.5	92.2	18.7
TNK-BP	69.4	14.1	68.8	14.1	70.2	14.2
Surgutneftegas	64.5	13.1	61.7	12.6	59.6	12.1
Gazprom + Gazprom нефт	45.8	9.3	43.4	8.9	41.9	8.5
Of which:						

	Oil production in 2007, mln t	Share in overall production, %	Oil production in 2008, mln t	Share in overall production, %	Oil production in 2009, mln t	Share in overall production, %
Gazprom	13.2	2.7	12.7	2.6	12.0	2.4
Gazprom neft	32.6	6.6	30.7	6.3	29.9	6.1
Tatneft	25.7	5.2	26.1	5.3	26.1	5.3
Slavneft	20.9	4.3	19.6	4.0	18.9	3.8
Russneft	14.2	2.9	14.2	2.9	12.7	2.6
Bashneft	11.6	2.4	11.7	2.4	12.2	2.5
NOVATEK	2.6	0.5	2.7	0.6	3.3	0.7
PSA operators	13.8	2.8	12.0	2.5	14.8	3.0
Other producers	20.7	4.2	24.1	4.9	26.0	5.3
State companies total:						
Rosneft+ Gazprom+ Gazprom neft	156.5	31.9	157.2	32.2	158.2	32.0

Source: RF Ministry of Energy, author's calculations.

Gazprom has traditionally dominated in the field of gas production. At the same time, as long as decline in gas production was mainly due to Gazprom, its share in the overall gas production dipped to 77.5% in 2009 (Table 9). In such a case proportion of oil companies in gas production went up (to 10.6%), of NOVATEK (to 5.5%) and PSA operators (to 3.1%).

Table 9

Structure of Gas Production in 2007–2009

	Gas production in 2007, bn cubic meters	Share in overall production, %	Gas production in 2008, bn cubic meters	Share in overall production, %	Gas production in 2009, bn cubic meters	Share in overall production, %
Russia – total	654.1	100.0	664.9	100.0	596.4	100.0
Gazprom + Gazprom neft	551.9	84.4	553.1	83.2	466.6	78.2
Of which:						
Gazprom	550.1	84.1	550.9	82.9	462.3	77.5
Oil companies	56.9	8.7	54.8	8.2	63.5	10.6
NOVATEK	28.5	4.4	30.8	4.6	32.8	5.5
PSA operators	6.7	1.0	8.5	1.3	18.3	3.1
Other producers	10.1	1.5	17.6	2.6	15.2	2.5
State companies – total:						
Rosneft + Gazprom + Gazprom neft	568.9	87.0	566.1	85.1	484.0	81.2

Source: RF Ministry of Energy, author's calculations.

Reduction in the growth rates of crude oil production is due to first of all objective deterioration of its production conditions. Considerable part of producing fields have reached the stage of declining production (brown fields), and the new oil deposits in the majority of cases are marked by worse mining-and-geological and geographic parameters, their development requires excessive capital, maintenance and transportation costs.

Sharp cut in gas production in 2009 (by 12.1% in comparison with preceding year) was due to a reduction in domestic and foreign demand (due to economic recession and relatively warm weather conditions), as well as to forced cut in gas supplies to Europe at the beginning of 2009 due to conflict with Ukraine. In January-November 2009 export of natural gas dipped by 19.1% in relation to the corresponding period of the preceding year (at the same time gas supplies outside of CIS dipped by 27.7%).

Dynamics and Structure of Petroleum and Gas Export

Against the backdrop of oil production decline in 2008 there was a somewhat cut in crude oil export volume, however, growth of oil export resumed in 2009 (Table 10). In 2009 net export of crude oil and petroleum products amounted to 370.1 mln t or went up by 3.45 in com-

parison with preceding year. The proportion of net export of crude oil and petroleum products in the overall oil production came to 74.9%. Net export of crude oil in 2009 constituted 49.8% of its production volume. The share of export in fuel oil production in January-November 2009 amounted to 81.5%, diesel oil – 59.0%, gasoline – 12.9% (for comparison: in 1999 the share of export in gasoline production constituted 7.2% and in 2005 – 18.5%, in 2006 – 18.3%, in 2007 – 17.1% and in 2008 – 12.5%).

In 2009 a decline in import of petroleum products was observed, the share of import for coverage of domestic demand also dipped. In 2009 the share of import in gasoline stock constituted only 0.5% (for comparison: in the first half of 1998 proportion of import in gasoline stock amounted to 8.7%, in 2008 – 0.7%). For diesel oil and fuel oil this indicator amounted to 0.3-0.4%.

Table 10

**Export of Crude Oil, Petroleum Products and Natural Gas from Russia
in 2002–2009 (in % to preceding year)**

	2002	2003	2004	2005	2006	2007	2008	2009 11 months
Oil – total	113.9	117.8	115.0	98.4	98.0	104.0	94.0	102.0
Of which:								
Countries outside CIS	109.9	118.9	116.3	99.1	98.0	104.8	92.6	103.3
To CIS countries	137.3	112.4	108.3	94.9	98.0	99.4	102.6	94.8
Petroleum products – total	118.5	103.6	105.5	117.9	106.3	108.0	105.0	105.4
Of which:								
Countries outside CIS	119.1	102.6	104.9	119.1	104.5	107.6	102.0	107.4
To CIS countries	102.8	132.3	117.9	94.6	148.8	115.3	152.2	85.2
Gas –total	102.4	102.0	105.5	103.7	97.6	94.6	101.8	80.9

Source: Federal service of state statistics.

In 2009 in spite of the reduction in demand for crude oil in Europe due to economic recession, Russia managed to increase its volume of oil export in natural terms. This was due to a fall in oil supplies by some other petroleum producers – Norway, Great Britain, the OPEC countries. In Norway and Great Britain this was due to objective fall of oil production as a result of depletion of producing fields, in the OPEC countries – accomplishment of commitments taken by cartel aimed to reduce petroleum production volumes by the cartel member countries.

At the same time, in 2009 gas export volume sharply dipped. In January-November 2009 gas export shrank by 19.1% compared to the corresponding period of the previous year due to considerable reduction in supplies to Europe. As a result, proportion of net export in gas production fell from 28.3% to 25.3% in 2009.

Table 11

**Ratio of Production, Consumption and Export of Petroleum and Natural Gas
in 2000–2009**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 (esti- mate)
Oil, mln t										
Production	323.2	348.1	379.6	421.4	458.8	470.0	480.5	491.3	488.5	494.2
Export – total	144.5	159.7	187.5	223.5	257.4	252.5	248.4	258.4	243.1	248.0
Export to countries outside CIS	127.6	137.1	154.8	186.4	217.3	214.4	211.2	221.3	204.9	211.7
Export to CIS countries	16.9	22.7	32.7	37.1	40.1	38.0	37.3	37.1	38.2	36.3
Net export	138.7	154.7	181.3	213.4	253.2	250.1	246.1	255.7	240.6	246.2
Domestic consumption	123.0	122.9	123.5	129.8	124.2	123.1	131.2	124.1	130.4	124.1
Net export in % to production	42.9	44.4	47.8	50.6	55.2	53.2	51.2	52.0	49.3	49.8
Petroleum products, mln t										

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 (estimate)
Export – total	61.9	70.8	75.0	78.4	82.1	97.0	103.5	111.8	117.9	124.3
Export to countries outside CIS	58.4	68.3	72.5	74.9	78.0	93.1	97.7	105.1	107.6	115.6
Export to CIS countries	3.5	2.5	2.6	3.5	4.1	3.9	5.8	6.7	10.3	8.7
Net export	61.5	70.5	74.8	78.2	81.4	96.8	103.2	111.5	117.5	123.9
Oil and petroleum products, mln y										
Net export of crude and oil products	200.2	225.2	256.1	291.6	334.6	346.9	349.3	367.2	358.1	370.1
Net export of crude and oil products in % to oil production	61.9	64.7	67.5	69.2	72.9	73.8	72.7	74.7	73.3	74.9
Natural gas, bln cubic meters										
Production	584.2	581.5	594.5	620.3	634.0	636.0	656.2	654.1	664.9	596.4
Export – total	193.8	180.9	185.5	189.3	200.4	207.3	202.8	191.9	195.4	158.1
Export to countries outside CIS	133.8	131.9	134.2	142.0	145.3	159.8	161.8	154.4	158.4	114.5
Export to CIS countries	60.0	48.9	51.3	47.3	55.1	47.5	41.0	37.5	37.0	43.6
Net export	189.7	176.8	178.3	180.5	193.5	199.6	195.3	184.5	187.9	150.6
Domestic consumption	394.5	404.7	416.2	439.8	440.5	436.4	460.9	469.6	477.0	445.8
Net export in % to production volume	32.5	30.4	30.0	29.1	30.5	31.4	29.8	28.2	28.3	25.3

Source: Federal service of state statistics, RF Ministry of Energy, Federal Customs Service, author's calculations.

Amid somewhat increase in the share of oil products, export of crude oil still prevailed in the structure of petroleum export and was accounted in 2009 for 66.5% of the overall export of oil and petroleum products. Fuel oil which is used in Europe for further processing and diesel oil constituted major share in the export of petroleum products. Major proportion of energy resources (in 2009 – 85% of oil, 93% of petroleum products and 72% of gas) was exported to non-CIS countries.

Table 12

Net Export of Petroleum Products in 2002–2009

	2002	2003	2004	2005	2006	2007	2008	2009 (estimate)
Net export of petroleum products, mln t	74.8	78.2	81.4	96.8	103.2	111.5	117.5	123.9
Share of petroleum products in net export of oil and oil products, %	29.2	26.8	24.3	27.9	29.5	30.4	32.8	33.5

Source: Federal service of state statistics, Federal Customs Service, author's calculations.

Analysis of dynamics of Russia's oil export over a prolonged time interval indicates increase in the share of petroleum products, which proportion went up from 18.2% to 33.5% in 2009 (Table 12). Amid drastic reduction in domestic petroleum consumption (according to our calculations, it slumped from 269.9 mln t in 1990 to 124.1 mln t in 2009, i.e. more than twofold) proportion of net export of oil and petroleum products in the oil production went up during this time interval from 47.7% to 74.9%.

Represented data bear record to a significant strengthening of export orientation of the oil and gas sector in comparison with the pre-reform period. However, one should bear in mind that it is due not only to the increase in absolute export volumes, but to a significant contraction in domestic demand for oil resulting from the market oriented reforms implemented in the Russian economy. During the year preceding the global financial and economic crisis of 2008-2009, amid fast economic growth volumes of domestic oil consumption were sufficiently stable which speaks for a reduction in the oil intensity of Russia's GDP.

In 2008 the rise of world prices for crude oil determined appreciable income growth recorded in the oil and gas sector (*Fig, 2, 3*). Ultimate proceeds from export of oil and major types of petroleum products (gasoline, diesel oil and fuel oil) in 2008 came to USD 228.9 bn, which by 38.8% exceeds the volume of earnings from export of oil and oil products recorded in 2007 and represents an all-time high level for the entire post-reform period (*Table 13*). For comparison it is possible to note that the minimal level of receivables from export of oil was observed amid slump of world prices for crude oil observed in 1998, when export receipts constitute only USD 14 bn.

Table 13

Proceeds from Export of Oil and Oil Products in 2000–2009 (USD/bn)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 11 months
Proceeds from export of oil and major types of oil products	34.9	33.4	38.7	51.1	74.6	112.4	140.0	164.9	228.9	126.0

Source: calculated on the data provide by the Federal service of state statistics.

In 2009 a lower level of world prices for crude oil by contrast to the preceding year determined sizable contraction in export revenues. Ultimate proceeds from export of crude oil and oil products (gasoline, diesel oil and fuel oil) in January–November 2009 came to USD 129 bn or to 58% vis-à-vis the corresponding period of last year (*Table 14*).

Table 14

Receipts from Export of Oil and Oil Products in 2008–2009 (USD/ bn)

	2008 I Q	2008 II Q	2008 III Q	2008 IV Q	2009 I Q	2009 II Q	2009 III Q	2009 October–November
Receipts from export of oil and major types of oil products	53.2	64.4	68.9	42.4	25.6	30.6	39.2	30.6

Source: calculated on the data of Federal service of state statistics.

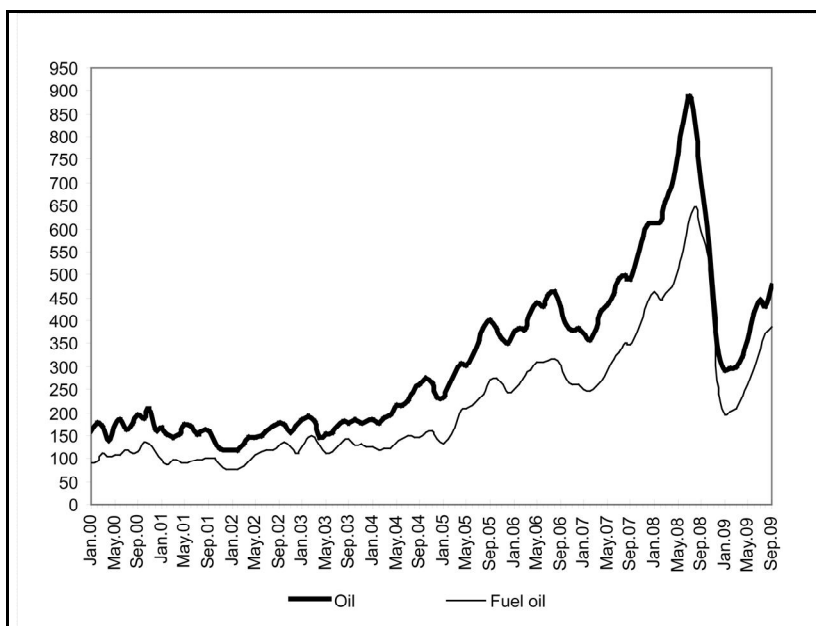
Table 15

Value and Proportion of Export of Fuel and Energy Commodities in 2005–2009

	2005		2006		2007		2008		2009	
	USD bn	%*	USD bn	%*	USD bn	%*	USD bn	%*	USD bn	%*
Fuel and energy commodities – total	154.7	64.1	196.9	65.4	225.6	64.0	321.1	68.6	201.1	66.7
Of which:										
Oil	83.8	34.7	102.3	34.0	121.4	34.4	161.2	34.4	100.6	33.3
Natural gas	31.4	13.0	43.9	14.6	44.8	12.7	69.1	14.8	42.0	13.9

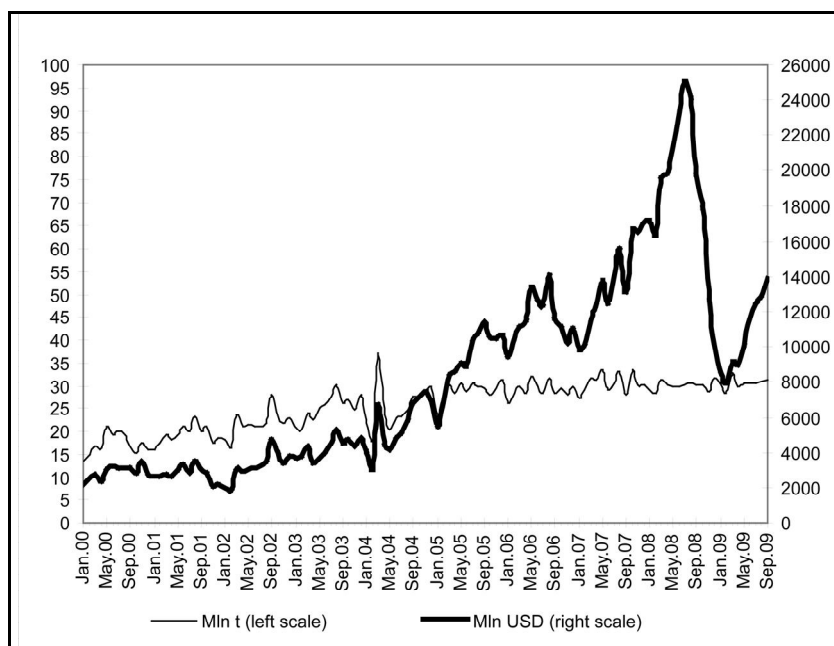
* In % to overall volume of Russia's export.

Source: Federal service of state statistics.



Source: calculated on the data of Federal service of state statistics.

Fig. 2. Average Prices of Export of Oil and Fuel Oil in 2000–2009 (USD/t)



Source: calculated on the data of Federal service of state statistics.

Fig. 3. Export of Oil and Oil Products in Physical and Value Terms in 2000-2009 (mln t, USD mln)

Under the impact of the rise of world prices for crude oil and natural gas, the share of fuel and energy commodities in Russia's export in 2008 accounted to 68.6%, of which crude oil represented 34.4% (Table 15). In 2009 the share of fuel and energy commodities in Russia's export somewhat declined, however remained high as before (66.7% of which crude oil – 33.7%).

Dynamics of Prices for Energy Commodities on Domestic Market

In 2008 in response to the growth of world oil prices notable increase in prices for oil and oil products on the domestic market was observed. In summer 2008 producers' prices on oil, gasoline, diesel oil and fuel oil reached record high values for the entire after-reform period. In July 2008 average domestic price for oil (producer's price) in dollar terms reached 410.2 USD/t, and average price of gasoline – 810.3 USD/t. In September-December 2008 in response to a decline in world oil prices and the devaluation of the ruble exchange rate, a slump in domestic prices for oil and oil products (producers' price) in dollar terms was observed. However, in 2009 in response to the rise of world oil prices, they greatly resurged and exceeded the level of the end of 2008. (Table 16, Fig. 4,5). At the same time, domestic prices for oil in Russia as before remain notably lower than the world oil price level. Price gap between world and domestic oil prices is due to the export customs duty and additional transportation costs of export. Oil price on the domestic free market (market's segment where oil is sold not by transfer prices) during recent years actually is formed on the basis of its free market price with the deduction of export customs duty and export costs.

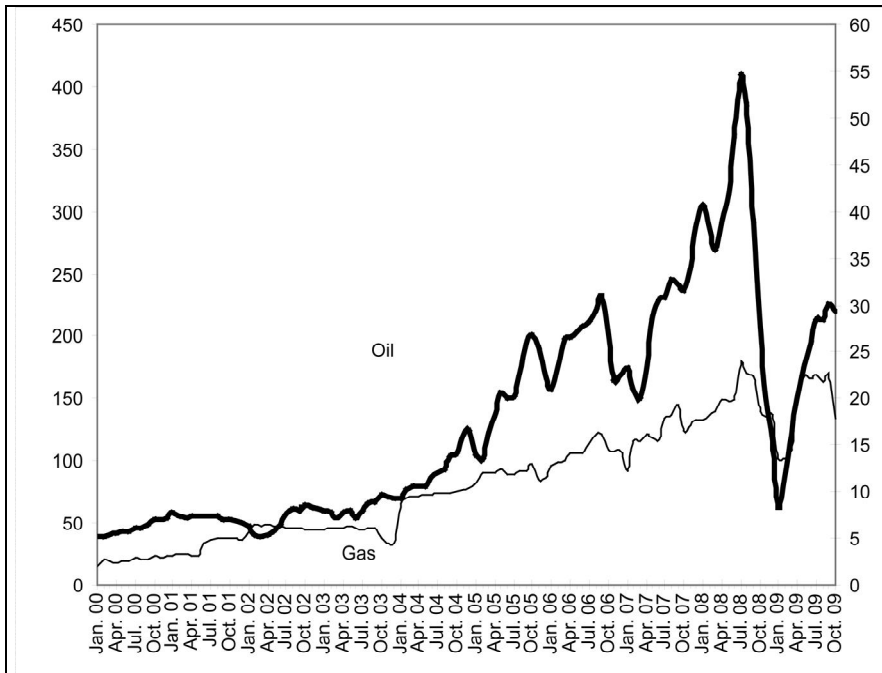
Table 16

Domestic Prices for Oil, Oil Products and Natural Gas in USD Terms in 2000–2009 (average producers' prices, USD/t)

	2000 December	2001 December	2002 December	2003 December	2004 December	2005 December
Crude oil	54.9	49.9	60.7	70.1	123.5	167.2
Gasoline	199.3	151.5	168.8	236.9	333.1	318.2
Diesel oil	185.0	158.5	153.8	214.3	364.3	417.0
Fuel oil	79.7	47.1	66.1	66.0	69.4	142.7
Gas, USD/thousand cubic meters	3.1	4.8	5.9	4.4	10.5	11.5
	2006 December	2007 June	2007 Decem- ber	2008 June	2008 July	2008 December
Crude oil	168.4	230.3	288.2	360.4	410.2	114.9
Gasoline	416.5	491.7	581.2	763.6	810.3	305.1
Diesel oil	426.1	442.0	692.5	850.7	902.8	346.5
Fuel oil	148.8	181.6	276.5	337.2	392.8	125.0
Gas, USD/thousand cubic meters	14.4	15.6	17.6	20.0	23.8	18.1
	2009 January	2009 March	2009 June	2009 September	2009 October	2009 December
Crude oil	62.2	122.9	194.7	225.9	219.5	219.3
Gasoline	244.3	318.8	481.5	593.2	576.2	457.4
Diesel oil	306.2	343.1	382.1	388.2	380.6	394.8
Fuel oil	107.2	145.9	210.8	265.8	257.6	250.8
Gas, USD/thousand cubic meters					17.9	16.9

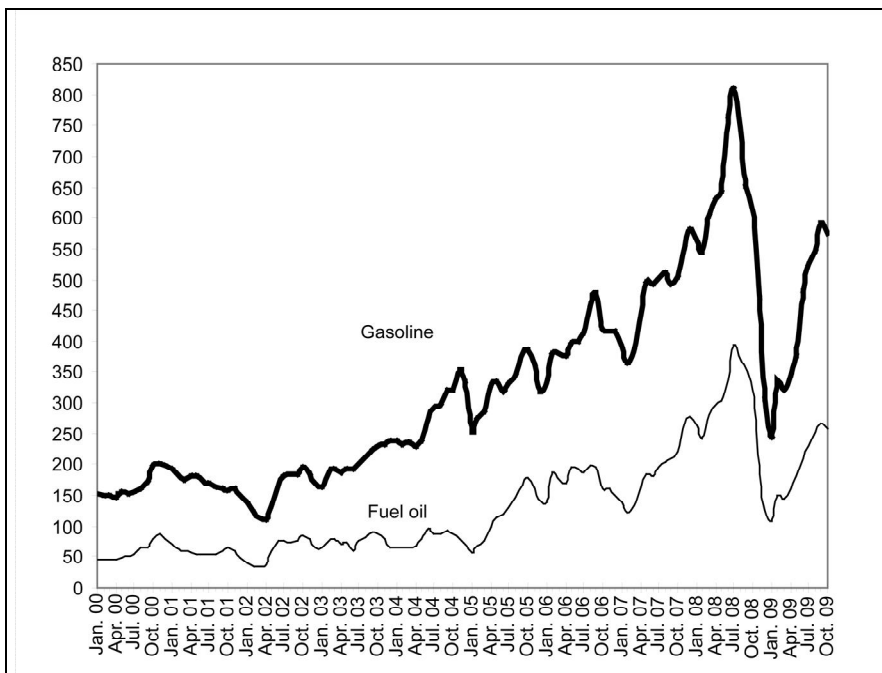
Source: calculated on the data provided by the Federal service of state statistics.

So far domestic prices for gas remain under the government control. In the coming years gradual rise of domestic prices for gas to the level which ensures profitability of its marketing on domestic and on external markets has been envisaged. Price gap between the world and domestic prices for gas in this case will reduce; however, domestic prices for gas will remain below the world level (the difference is equal to export customs duty and transportation costs for export).



Source: calculated on the data provided by the Federal service of state statistics.

Fig. 4. Average Producers' Prices for Crude Oil and Natural Gas in USD Terms in 2000–2009 (USD/t – left scale, USD/thousand cubic meters- right scale)



Source: calculated on the data of Federal service of state statistics.

Fig. 5. Average Producers' Prices for Gasoline and Fuel Oil in USD Terms in 2000–2009 (USD/t)

Features of Tax Regulation in Oil and Gas Sector in the Wake of the Crisis

Some amendments to the RF Tax Code came into effect in 2009. They were directed at the reduction in tax burden on the oil sector and stimulation of crude production. Tax system based on the unified specific oil extraction tax which was effective since 2002 did not take into consideration real differences which existed in the conditions of oil extraction due to mining-and-geological features of oil deposits, their location, as well as the stage of their production. As a result, the oil extraction economic effectiveness deteriorated regarding the high-cost deposits, termination of production ahead of schedule. At the same time, commissioning of the new high-cost oilfields was getting more difficult. It was especially true of undeveloped regions with lacking infrastructure.

Drawbacks inherent to the unified rate for oil extraction tax have determined the search for scenarios with different tax rates depending on mining-and-geological conditions which specify real conditions for oil extraction. The tax system was amended with new elements since 2007:

1. Rate-reducing coefficient for depleted deposits at over 80% has been introduced. Coefficient is calculated on the basis of the formula and changes from 1 (under depletion at 0.8) to 0.3 (under depletion at 1 and more)

2. For the new oil deposits of the Eastern Siberia oil and gas province on the territory of the Republic of Sakha (Yakutia), Irkutsk oblast and Krasnoyarsk Krai tax holidays for the oil extraction tax have been applied. For this type of oil deposits zero oil extraction tax rate has been fixed before oil extraction volume reaches the volume of 25 mln t at the subsoil block on condition that the development timeline does not exceed 10 years or during 10 years in case of licenses for the right to use subsurface mineral resources both for geological study (prospecting and exploration) and production from the date of state registration of the license.

3. Zero oil extraction tax rate has been determined for deposits with super heavy crude oil.

Adopted amendments were aimed at stimulating development of depleted and new oil deposits. Differentiation of oil extraction tax with the account of the level of depleted resources allows extending development timeline of depleted deposits and ensures additional revenues both from oil extraction tax (levied at the reduced rate) and from other types of taxes (profit tax, export duties, etc.). Reduction in the rate for the oil extraction tax in case of new oil deposits in the Eastern Siberia oil and gas province has allowed stimulating the development of the deposits of this region.

At the same time, adopted amendments envisaged that the benefits with respect to oil extraction tax for the new and depleted oil deposits can be obtained solely in case of application of the direct metering method (accounting) of the oil production volume at the subsoil block. In case of the depleted deposits this provision notably restricted the sphere of application of tax benefits due to the fact that there is no direct metering of oil production on the majority of these oilfields (license blocks). As a result, application of this benefit has a very limited character, i.e. the task of stimulating and extending the development of depleted deposits has found a very limited solution.

Adopted amendments have not found a full solution for the tax stimulation of the development of new high-cost deposits which do not belong to Eastern Siberia oil and gas province, i.e. located in other regions and on the continental shelf. In the majority of cases the new Russian oil deposits are characterized by negative mining-and-geological and geographic parameters. Their development requires higher capital investment, maintenance and transportation

costs. At the same time, current tax system failed to ensure necessary reduction in tax burden for the development of such deposits which held back investments in the new projects. Commissioning of the new high-cost oil deposits especially in the undeveloped regions with undeveloped or lacking infrastructure required improvement of the current tax system, and the implementation of special tax policy ensuring required incentives for the investment into oil production.

In 2008 in order to stabilize oil production amendments into the RF Tax Code were developed and adopted. These amendments were aimed at the reduction of tax burden on the oil sector, stimulation of enhanced development of operating deposits and development of the new ones in undeveloped regions and on the continental shelf. These amendments entered into force from 1 January 2009. From the point of view of impact on the oil production economic effectiveness the following ones are the most important:

1. Depletion coefficient K_{Π} formula which reflects dynamics of the world oil prices and is applied to the base rate of the oil extraction tax, the exemption minimum has been raised from 9 USD/bbl to 15 USD/bbl (*Table 17*). Such modification of the depletion coefficient formula has resulted in a sizable reduction in the oil extraction tax rate. In the heat of 2009 reduction in the oil extraction tax rate by means of formula modification constituted about 12%. This reduction in the uniform oil extraction tax rate cuts tax burden on the oil sector and allows oil companies to get more revenues, increases investment yield from the development of new deposits, stimulate more enhanced development of depleted deposits.

Table 17

Oil Extraction Tax Rate in 2002–2009

	2002	2003	2004	2005	2006	2007	2008	2009
Basic rate of oil extraction tax Rb/t	340	340	347	419	419	419	419	The formula 419
Coefficient of world price dynamics (K_{Π})		$(\Pi-8) \times P / 252$			$(\Pi-9) \times P / 261$			$(\Pi-15) \times P / 261$

Note. Π – average for the tax period price level for Urals in USD/bbl; P – average for the tax period USD exchange rate to the Ruble determined by the Central Bank of the Russian Federation.

Source: RF Tax Code, Federal law № 151-FZ of 27 July 2006, Federal law № 33-FZ of 07 May 2004, Federal law № 126-FZ of 08 August 2001.

2. Requirement to apply direct metering method for oil production on specific subsoil block has been removed in case of set oil extraction tax benefits on deposits with high depletion level and on the deposits located in Eastern Siberia oil and gas province (within borders of the Republic of Sakha (Yakutia), Irkutsk oblast and Krasnoyarsky Krai. Applicability of existing benefits regarding oil extraction tax, first of all rate-reducing coefficient for depleted deposits, were significantly restricted by the requirement to use the direct metering method for extracted volume of oil. Due to the fact that implementation of technical undertakings to secure direct metering method of oil extraction on the depleted deposits in the majority of cases was economically inefficient, this did not allow applying existing tax benefits and led to untimely closure of production and subsequent loss of crude

Application of benefits for oil extraction tax on the basis of current metering system of oil production for separate subsoil blocks allows spreading these benefits to all depleted oil deposits which will ensure extension of their production period, supplementary oil extraction and extra tax receipts.

This also allows securing application of oil extraction tax benefit (tax holidays) for the new small fields located in the Eastern Siberia oil and gas province and other regions entitled to the

benefits. Implementation of direct metering of oil production on such oil fields is economically inefficient and in the event of the absence of such oil extraction tax benefit they will remain untouched.

At the same time, it should be noted that where the current metering method of oil production is implemented, oil companies tend to maximize the volume of produced crude oil by means of manipulation (distorting accounting) when distributing the volume of produced oil across separate license blocks. In this connection, government authorities face a daunting task to establish rigorous control over reliability of such data

3. For the fields located in Nenets autonomous okrug (north of Timano-Pechora oil and gas province) and the Yamal peninsula in Yamalo-Nenets autonomous okrug, zero oil extraction tax rate is fixed for the production period up to the accumulated volume of oil extraction reaches 15 mln t on the subsoil block or for the time interval of 7 years for the licenses for the right to use the subsoil resources for the purposes of exploration and production or for the period of 12 years in case of the licenses for the right to use natural resources simultaneously for geological prospecting (study and exploration) and production of natural resources starting from the date of state registration of corresponding license. For the subsoil blocks located there, licenses for the right to use subsurface mineral resources were issued prior to 1 January 2009 and the level of depletion does not exceed 0.05 zero oil extraction tax rate is effective up to the moment when accumulated volume of oil extraction reaches 15 mln t or during 7 years starting with 1 January 2009.

4. For the RF continental shelf oil fields located to the north of the Northern Pole zero oil extraction tax rate has been determined for the period up to the moment when accumulated volume of oil extraction reaches 35 mln t or for the time interval of 10 or 15 years starting with the date of state registration of the license depending on the type of the license for the right to use subsurface mineral resources. For the subsoil blocks located there, licenses for the right to use subsurface mineral resources were issued prior to 1 January 2009 and the level of depletion does not exceed 0.05 zero oil extraction tax rate is effective up to the moment when accumulated volume of oil extraction reaches 35 mln t or during 10 years starting with 1 January 2009.

5. For the field located in the Sea of Azov and in the Caspian Sea zero oil extraction tax rate has been determined for the period prior to the moment when accumulated volume of oil production reaches 10 mln t or for the time interval of 7 or 12 years starting from the date of state registration of the license depending on the type of the license for the right to use subsurface mineral resources. For the subsoil blocks located there, licenses for the right to use subsurface mineral resources were issued prior to 1 January 2009 and the level of depletion does not exceed 0.05 zero oil extraction tax rate is effective up to the moment when accumulated volume of oil extraction reaches 10 mln t or during 7 years starting with 1 January 2009.

In order to provide additional incentives for the development of Eastern Siberian oil fields the government has determined zero export customs duty rates effective from 1 December 2009. It is envisaged that these rates will be effective only a limited period of time. Furthermore, amendments to the RF Tax Code have been developed regarding tax holidays for the oil extraction tax effective for the deposits located in the Black Sea and Okhotsk Sea (for the Black Sea fields – up to 20 mln t of accumulated volume of oil production or for the period of 10 or 15 years depending on the type of the license for the right to use subsoil mineral resources; for the Okhotsk fields up to 30 mln t of accumulated volume of oil production or for the period of 10 or 15 years).

Gradual reduction of the tax burden effective for specific regions is characterized by excessive costs required for the development within the framework of the current tax system seems to be justified because it allows ensuring required investment yield in the development of the new deposits. At the same time, the mechanism of tax holidays which is rather simple from the tax administration point of view is rather imperfect. All deposits of specific region (shelf) are subject to a unified averaged approach which does not account differences in characteristics and costs required for the development of certain field of the given region.

Moreover, on the relatively small oil fields oil production under regular development rate during tax holidays will remain sizably below the determined production limit, tax holidays create incentives for the rapid development aimed at exempting from taxation the maximum volumes of oil production. It may result in the contraction of tax revenues and in the fall of the quality of final oil extraction. .

The problem of development of small fields remains unsolved. As a rule, their development is connected with high production costs per a ton of crude oil. In the new regions benefits for the oil extraction tax effective for small fields in many cases remain insufficient, and in case of old oil producing regions benefits for small fields are not envisaged.

Ad valorem rate for the oil extraction tax is a more flexible tax tool as compared with the specific tax rate. Crude oil price at its production site, in other words, oil sale price minus transportation costs represents the tax base in case of ad valorem rate for the oil extraction tax. This allows to directly account at the time of taxation differences in transportation costs determined by geographic location (as well as difference in sale price determined by the quality of oil and supply routs). High transportation costs represent one of the important factors leading to cost increase of deposits development in promising regions (for instance, in Eastern Siberia). Furthermore, growth of Transneft's tariffs in this case is offset for the oil producers by a reduction in tax payments because transportation costs are removed from the tax base.

In case of ad valorem rate to the oil extraction tax needed to preserve progressive dependence of tax burden on the oil price there should be progressive dependence of tax rate on the price for Urals. In this case, on the one hand, tax burden in relative terms will be growing together with the oil price; on the other hand, advantage of the ad valorem rate will be effective. At the same time, it is necessary to determine reduced rates for the oil extraction tax in case of the new production regions and for the small oil fields in order to take into account higher capital and production costs for taxation purposes.

Additional profits tax (APT) represents a better form of oil production taxation. Due to the fact that all mining-and-geological and geographic parameters of the oil field finally tell on the obtained profit volume, such an approach ensures automatic differentiation of tax burden depending on specific conditions of oil production. Under such approach not only gross revenue is taken into account but production costs on a specific field as well. As a result, there are no economic barriers for the development of oil fields with high capital, production and transportation costs.

Additional profits tax (APT) has a number of advantages vis-à-vis oil extraction tax. In contrast with the oil extraction tax, APT is based on the additional incomes indicators and P-factor which objectively reflect actual economic efficiency of specific oil field development. In the even of highly profitable projects the use of APT will ensure progressive resource rent extraction for the state budget. Simultaneously, conditions for the implementation of low profit projects are improved.

Use of APT for the new fields will ensure automatic bringing of tax burden in line with the development conditions of specific deposits. Application of such tax regime will allow creating necessary conditions for the development of new oil fields with excessive capital investments, high production and transportation costs.