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R95 **Russian Economy in 2011. Trends and Outlooks.**  
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The review provides a detailed analysis of main trends in Russia's economy in 2011. The paper contains 6 big sections that highlight single aspects of Russia's economic development: the socio-political context; the monetary and credit spheres; financial sphere; the real sector; social sphere; institutional challenges. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts.

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**Russia’s Oil and Gas Sector in 2011**

Oil and gas production remain the core sector of Russia economy, which has a leading role in generating federal budget revenue and this country’s balance of trade. The factors that exerted the most significant influence on the development of the oil and gas sector of the Russian economy in 2011 were the situation on the world oil market; the situation on the European gas market; and the objective deterioration of the conditions for the extraction of oil and natural gas, which is associated with a declining production at the ‘old’ deposits and the considerably higher costs of the development of new ones, especially in unpopulated areas with no infrastructure.

**The Dynamics of International Prices of Oil and Natural Gas**

A decisive influence on the situation on the world oil market in 2011 was produced by the relative rebound of the world economy after the financial and economic crisis of 2008–2009. The price of Brent in 2011 rose to the level of 111.0 USD/barrel, while that of Russia’s Urals on the world (European) market increased to 109.1 USD/barrel, which is 39.3% above the previous year’s level and 15.4% above the pre-crisis historic high achieved in 2008 (*Table 17*). The principal factors that determined price growth were as follows: an increasing demand for oil (*Table 18*) that resulted from growth of the world economy, and first of all the national economies of China, India and other Asian countries; the OPEC’s conservative policy towards increasing the volumes of oil extraction in its member countries; the low rate of growth of oil production outside of the OPEC; and the drop in the supplies of oil from Libya as a result of the military actions in that country’s territory. In conditions of the shrinking Libyan oil supplies, in April 2011 the international price of Brent surged to 123.1 USD/barrel To compensate for the decline in the supply of oil from Libya, and in fear of a negative effect of high international oil prices on international demand, some OPEC countries (and first of all Saudi Arabia) increased oil production in excess of the quotas established by the OPEC. This pushed down the international oil price to 110 USD/barrel (*Table 19, Fig. 47*).

In December 2011, on the basis of an estimated demand on the international market for additional supplies of oil, the OPEC increased the aggregate quota for oil extraction by its member countries to 30m barrel per day (including Iraq, on whose extraction volumes no restrictions had been imposed previously, and Libya). The new quota effectively corresponded to the level of oil extraction achieved by the OPEC in 2011. That level, however, is still below the OPEC countries’ oil extraction level in 2008 (31.6m barrel per day).

*Table 17*

**International Oil Prices in 2000–2011, USD/barrel**

	2000	2005	2006	2007	2008	2009
Price of Brent, UK	28.5	54.4	65.2	72.5	97.7	61.9
Price of Urals, Russia	26.6	50.8	61.2	69.4	94.5	61.0

*cont’d*

	2010	2011				2011
		Q1	Q2	Q3	Q4	
Price of Brent, UK	79.6	104.9	117.1	112.5	109.3	111.0
Price of Urals, Russia	78.3	102.2	114.0	111.5	108.6	109.1

Source: IMF, OECD/IEA, OPEC.

Table 18

**International Demand for Oil in 2008–2011, As % of Same Period of Previous Year**

	2008	2009	2010	2011
World, total	-0.6	-1.2	3.2	0.8
OECD countries	-3.6	-4.2	1.1	-1.2
including:				
North America	-5.2	-3.7	2.0	-1.4
Europe	-0.6	-4.7	-0.5	-1.9
Asia-Pacific Region	-4.0	-4.6	1.7	0.5
Non-OECD countries	3.3	2.5	5.5	3.0
including:				
Asia (without Near East countries and former USSR republics)	1.7	4.4	7.0	3.5

Source: OECD/IEA.

Table 19

**International Oil Prices in 2011, USD/barrel**

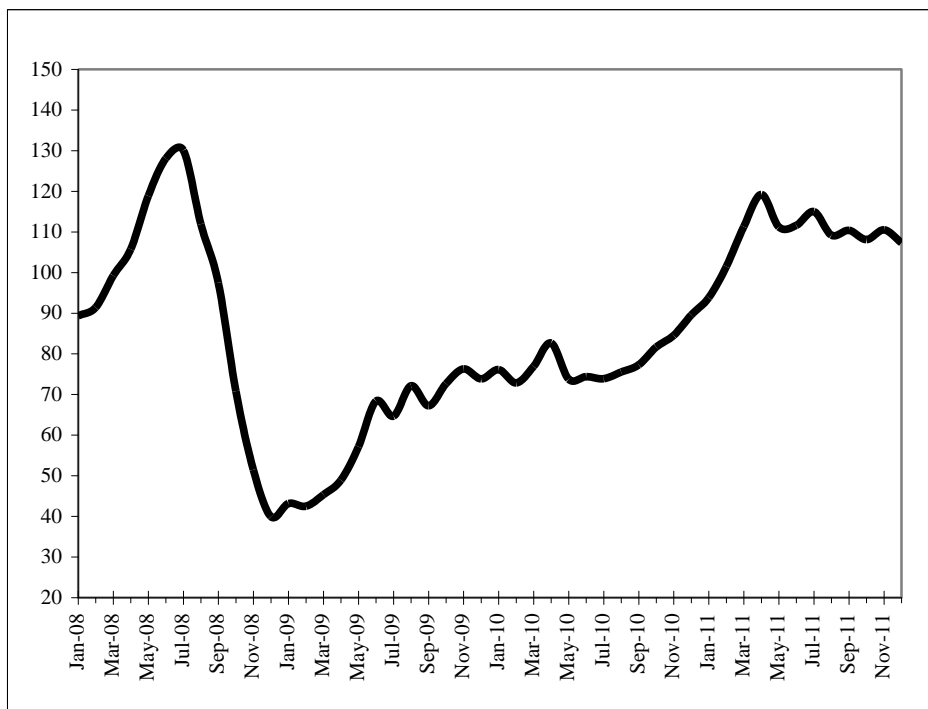
	January	February	March	April	May	June
Price of Brent, UK	96.3	104.0	114.4	123.1	114.5	113.8
Price of Urals, Russia	93.8	101.5	111.3	119.2	111.2	111.6

*cont'd*

	July	August	September	October	November	December
Price of Brent, UK	116.5	110.1	110.9	109.5	110.7	108.0
Price of Urals, Russia	115.0	109.2	110.4	108.1	110.5	107.3

Source: OECD/IEA, OPEC.

The prices of natural gas on the international market are determined, as a rule, by the level of prices of alternative energy carriers, in the main gasoil/diesel fuel and fuel oil, whose prices, in their turn, depend on international oil prices. Therefore the movement of the international prices of natural gas follows, with a certain lag, that of the international oil prices. The price of Russian natural gas on the European market reached its peak in 2008 followed by a historic low in 2010 (*Table 20*). In 2011, when international oil prices were on the rise, the price of Russian gas natural gas on the European market also rose significantly and amounted to 381.5 USD/1,000 m<sup>3</sup>, thus climbing 28.9% above the previous year's level. At the same time, the prices of Russian natural gas were declining in response to the changing situation on the European gas market, namely the rising natural gas supply, and in particular, the considerably increased supplies of liquefied natural gas (LNG), coupled with a lower level of natural gas spot prices by comparison with long-term contract prices (*Table 21*).



Source: RF Ministry of Economic Development.

Fig. 47. Price of Urals in 2008–2011, USD/barrel

Table 20

**International Prices of Oil and Natural Gas in 2002–2011, USD/barrel**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Mean international price of oil, USD/barrel	24.95	28.89	37.76	53.4	64.3	71.1	97.0	61.8	79.0	103.9
Price of Russian natural gas on the European market, USD/1,000 m <sup>3</sup>	96.0	125.5	135.2	212.9	295.7	293.1	473.0	318.8	296.0	381.5

Source: IMF.

Table 21

**Prices of Oil and Natural Gas on the European market in 2010–2011, USD/barrel**

	2010				2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Price of Brent, USD/barrel	76.7	78.7	76.4	86.8	104.9	117.1	112.5	109.3
Price of Russian gas on the European market, USD/1,000 m <sup>3</sup>	273.2	291.4	306.5	313.0	329.4	360.6	401.0	434.9
Natural gas spot prices gas on the European market (The Netherlands), USD/1,000 m <sup>3</sup>	145.4	178.8	204.0	224.5	244.7	246.3	239.3	247.1

Source: IMF, Bloomberg.

**Production Dynamics and Structure in the Oil and Gas Sector**

Growth in the volume of oil extraction in Russia in the first half of the 2000s occurred in response to the expanding opportunities for exports, in particular as a result of the creation of the Baltic Pipeline System, a more intensive development of the existing deposits and the in-

creasing investment potential of oil companies due to the rising international oil prices. In the following years the rate of oil extraction growth dramatically dropped. If in 2002–2004 it was at the level of 8.9 to 11% per annum, in 2006–2007 the rate's per annum growth amounted to only 2.1%, and in 2008, for the first time over the recent period, the volume of oil extraction declined. This was a clear sign that the reserves for increasing oil extraction in this country through intensifying the development of the existing oil fields had been exhausted, and Russia had, from now on, to more actively develop new oil fields. In 2009, the volume of oil extraction once again began to rise, although its growth rate remained relatively low. In 2011, Russia's oil output rose by 0.8% on the previous year (*Table 22, 23*). This positive dynamics was determined by both the putting in operation of several big oil fields in the north of the European Russia and in Eastern Siberia and by some alterations introduced in taxation with the purpose of lowering the tax load on the oil sector, creating incentives for deeper oil extraction from existing oil fields and to encourage the development of new oil deposits in untapped regions.

*Table 22*

**Oil Production and OIL Refining in the Russian Federation in 2000–2011**

	2000	2005	2006	2007	2008	2009	2010	2011
Oil extraction, including natural gas condensate, m tons	323.2	470.0	480.5	491.3	488.5	494.2	505.1	511.4
Primary crude oil distillation, m tons	173	208	220	229.0	236.3	236.0	249.3	258.0
Share of oil refining in oil extraction, %	53.5	44.3	45.8	46.6	48.4	47.8	49.4	50.4
Oil refining efficiency, %	71	71.6	71.9	71.7	72.0	71.9	71.1	70.8

Source: RF Federal State Statistics Service.

*Table 23*

**Production of Oil, Petroleum Products and Natural Gas in 2000 – 2011, as a Percentage of the Previous Year**

	2000	2005	2006	2007	2008	2009	2010	2011
Oil, including natural gas condensate	106.0	102.2	102.1	102.1	99.3	101.2	102.1	100.8
Primary crude oil distillation	102.7	106.2	105.7	103.8	103.2	99.6	105.5	103.3
Motor gasoline	103.6	104.8	107.4	102.1	101.8	100.5	100.5	102.0
Diesel fuel	104.9	108.5	107.0	103.4	104.1	97.7	104.2	100.3
Furnace fuel oil	98.3	105.8	104.5	105.2	101.9	100.8	108.5	104.6
Natural gas	98.5	100.5	102.4	99.2	101.7	87.9	111.4	102.9

Source: RF Federal State Statistics Service.

The volume of oil refining in recent years has been increasing at a faster rate than that of oil extraction, mainly due to a more rapid growth of RF exports of petroleum products induced by the lower exports duties on them as compared to the exports duties on crude oil. In 2005–2011, the growth rate of primary oil refining was 3.2–6.2% per annum (with the exception of 2009), while that of oil extraction was 0.8–2.2% per annum (with the exception of 2008). As a result, the share of the volume of oil refining in the volume of oil extraction rose from 42.5% in 2004 to 50.4% in 2011. At the same time, Russia's oil refining efficiency over the last decade did not increase, and in 2011 it amounted to only 70.8%, which effectively corresponds to the level of 2000 (it can be noted that in the leading industrially developed countries oil refining efficiency is 90–95%). As before, Russia's oil refining efficiency and the quality of its petroleum products remain significantly below international levels.

In 2011, the largest volumes of oil were produced by the oil companies *Rosneft*, *LUKOIL*, *TNK-BP*, *Surgutneftegaz*, and *Gazprom*. These five companies accounted for 74 % of Russia's

total oil production. Medium-sized companies (*Tatneft*, *Slavneft*, *Bashneft* and *RussNeft*) accounted for 14.4 % of this country's crude oil output. In 2011, the operators of production sharing agreements accounted for 3 % of all oil extracted in Russia. The share of all the other oil producers that comprised more than 100 small oil-extracting establishments amounted to only 8% (*Table 24*). State companies (federally owned) accounted for 31.1% of Russia's crude oil output. For reference it can be noted that, in 2003 (i.e., before their takeover of the assets of private oil companies), the share of *Rosneft* and *Gazprom* in Russia's crude oil output was only 7.3%.

Table 24

**Structure of Oil Production in 2008–2011**

	Oil extraction in 2008, m tons	Share in total output of crude oil, %	Oil extraction in 2010, m tons	Share in total output of crude oil, %	Oil extraction in 2011, m tons	Share in total output of crude oil, %
1	2	3	4	5	6	7
Russia, total	488.5	100.0	505.1	100.0	511.4	100.0
Rosneft	113.8	23.3	112.4	22.3	114.5	22.4
LUKOIL	90.2	18.5	90.1	17.8	85.3	16.7
TNK – BP	68.8	14.1	71.7	14.2	72.6	14.2
Surgutneftegaz	61.7	12.6	59.5	11.8	60.8	11.9
Gazprom + Gazprom Neft	43.4	8.9	43.3	8.6	44.8	8.8
including: Gazprom	12.7	2.6	13.5	2.7	14.5	2.8
Gazprom Neft	30.7	6.3	29.8	5.9	30.3	5.9
Tatneft	26.1	5.3	26.1	5.2	26.2	5.1
Slavneft	19.6	4.0	18.4	3.6	18.2	3.6
Bashneft	11.7	2.4	14.1	2.8	15.1	3.0

cont'd

1	2	3	4	5	6	7
RussNeft	14.2	2.9	13.0	2.6	13.6	2.7
Novatek	2.7	0.6	3.8	0.8	4.1	0.8
Operators of PSA	12.0	2.5	14.4	2.9	15.1	3.0
Other producers	24.1	4.9	38.2	7.6	41.1	8.0
<b>State companies, total:</b> Rosneft + Gazprom + + Gazprom Neft	157.2	32.2	155.7	30.8	159.3	31.1

Source: RF Ministry of Energy; the author's calculations.

Natural gas production was traditionally dominated by *Gazprom*. At the same time, its share in this country's output of natural gas in recent years has noticeably declined: from 83.2% in 2008 to 75.5% in 2011. At the same time, the share of other producers increased, including that of oil companies, *Novatek*, and the operators of production sharing agreements. The share of state companies (federally owned) in 2011 accounted for 78.2% of Russia's natural gas output (*Table 25*).

The decline in the growth rate of oil output can be explained in the main by the deterioration, for objective reasons, of extraction conditions. A considerable number of the currently functioning oil fields are decreasing their output, while the majority of the new oil fields are characterized by somewhat worse geographical and mining parameters, and so their development is associated with higher capital inputs and higher exploitation and transportation costs.



Table 25

### Structure of Natural Gas Production in 2008–2011

	Gas extrac- tion in 2008, bn cubic meters	Share in total output, %	Gas extrac- tion in 2010, bn cubic meters	Share in total output, %	Gas extrac- tion in 2011, bn cubic meters	Share in total output, %
Russia, total	664.9	100.0	665.5	100.0	687.5	100.0
Gazprom + Gazprom Neft)	553.1	83.2	513.9	77.2	519.0	75.5
including: Gazprom	550.9	82.9	509.0	76.5	510.1	74.2
Oil companies	54.8	8.2	66.6	10.0	69.1	10.1
Novatek	30.8	4.6	37.8	5.7	53.5	7.8
Operators of PSA	8.5	1.3	23.3	3.5	25.2	3.7
Other producers	17.6	2.6	23.9	3.6	20.7	3.0
<b>State companies, total:</b> Rosneft + Gazprom + + Gazprom Neft	566.1	85.1	531.2	79.8	537.6	78.2

Source: RF Ministry of Energy; the author's calculations.

### The Dynamics and Structure of Oil and Gas Exports

While the value of Russia's exports of oil and petroleum products considerably increased due to the rise in international oil prices, its physical volume somewhat declined: according to preliminary estimates, net exports of oil and petroleum products in 2011 amounted to 373.3m tons (Table 26, 27). The share of net exports of oil and petroleum products in total oil output was at the level of 73.0%. Oil exports in 2011 rose to 48.1% of oil output. Over that year, the share of exports in fuel oil and motor gasoline production amounted to 89.5% and 55.5% respectively. At the same time, motor gasoline exports in 2011 rose by 12.4%, while the share of motor gasoline exports in its output rose to 10.6% (for reference: in 1999 the share of exports in motor gasoline production was 7.2%, in 2005 – 18.5%, in 2009 – 12.6%, and in 2010 – 8.2%). Besides, the year 2011 saw a noticeable growth of imports of oil products (by 1.4 times on 2010) and a decline in the share of imports in the coverage of domestic demand. The share of imports in the total volume of motor gasoline resources rose from 0.6% in 2009 to 1.4% in 2010 and to 2.5% in 2011 (for reference: in the first half-year 1998 share of imports in motor gasoline resources was 8.7%, in 2008 – 0.7%).

Table 26

### Exports of Oil, Petroleum Products and Natural Gas from Russia in 2002 – 2011, as a Percentage of the Previous Year

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 11 months*
Oil, total	113.9	117.8	115.0	98.4	98.0	104.0	94.0	101.8	101.2	98.2
including: to non-CIS countries	109.9	118.9	116.3	99.1	98.0	104.8	92.6	102.9	106.1	96.2
Petroleum products, total	118.5	103.6	105.5	117.9	106.3	108.0	105.0	105.3	106.2	99.6
including: to non-CIS countries	119.1	102.6	104.9	119.1	104.5	107.6	102.0	107.1	109.6	96.1
Natural gas, total	102.4	102.0	105.5	103.7	97.6	94.6	101.8	86.2	105.6	106.5

\* As % of relevant period of 2010.

Source: RF Federal State Statistics Service.

Table 27

**Relationship between the Production, Consumption and Exports  
of Oil and Natural Gas in 2000 – 2011**

	2000	2005	2006	2007	2008	2009	2010	2011*
<b>Oil, m tons</b>								
Output	323.2	470.0	480.5	491.3	488.5	494.2	505.1	511.4
Exports, total	144.5	252.5	248.4	258.4	243.1	247.4	250.4	245.9
Exports to non-CIS countries	127.6	214.4	211.2	221.3	204.9	210.9	223.9	215.4
Exports to CIS countries	16.9	38.0	37.3	37.1	38.2	36.5	26.5	30.5
Net exports	138.7	250.1	246.1	255.7	240.6	245.6	249.3	244.8
Domestic consumption	123.0	123.1	131.2	124.1	130.4	125.3	125.9	138.1
Net exports, as % of output	42.9	53.2	51.2	52.0	49.3	49.7	49.4	47.9
<b>Petroleum products, m tons</b>								
Exports, total	61.9	97.0	103.5	111.8	117.9	124.4	132.2	131.7
Exports to non-CIS countries	58.4	93.1	97.7	105.1	107.6	115.4	126.6	121.7
Exports to CIS countries	3.5	3.9	5.8	6.7	10.3	9.0	5.6	10.0
Net exports	61.5	96.8	103.2	111.5	117.5	123.3	129.9	128.5
<b>Oil and petroleum products, m tons</b>								
Net exports of oil and petroleum products	200.2	346.9	349.3	367.2	358.1	368.9	379.2	373.3
Net exports of oil and petroleum products, as % of oil output	61.9	73.8	72.7	74.7	73.3	74.6	75.1	73.0
<b>Natural gas, bn m<sup>3</sup></b>								
Production	584.2	636.0	656.2	654.1	664.9	596.4	665.5	687.5
Exports, total	193.8	207.3	202.8	191.9	195.4	168.4	177.8	189.4
Exports to non-CIS countries	133.8	159.8	161.8	154.4	158.4	120.5	107.4	118.2
Exports to CIS countries	60.0	47.5	41.0	37.5	37.0	47.9	70.4	71.2
Net exports	189.7	199.6	195.3	184.5	187.5	160.1	173.5	185.1
Domestic consumption	394.5	436.4	460.9	469.6	477.4	436.3	492.0	502.4
Net exports, as % of petroleum products	32.5	31.4	29.8	28.2	28.2	26.8	26.1	26.9

\* Estimation.

Source: RF Federal State Statistics Service; RF Ministry of Energy; Federal Customs Service; the author's calculations.

After a significant drop in natural gas exports in 2009, when as a result of the sharp reduction in its deliveries to Europe it declined to 13.8%, in 2010–2011 the volume of gas exports once again rose and approached its pre-crisis level. At the same time, the share of net exports in natural gas output somewhat shrank – from 28.2% in 2008 to 26.9% in 2011.

While the share of petroleum products in the structure of oil exports had somewhat increased, it nevertheless remained smaller than the share of crude oil exports – in 2011 it amounted to 65.6% of the total volume of exported oil and petroleum products. The bulk of exported petroleum products was constituted by furnace fuel oil (which in Europe is used as raw material for further refining) and diesel fuel. And the bulk of exported energy carriers (in 2011: 88% of crude oil; 92% of petroleum products; and 62% natural gas) was exported to countries outside of the CIS.

An analysis of the changes in Russian oil exports over a long period of time demonstrates an increasing share of petroleum products, which rose from 18.2% in 1990 to 34.4 % in 2011 (Table 28). In conditions of shrinking domestic consumption of oil (according to our estimations, it dropped from 269.9m tons in 1990 to 138.1m tons in 2011), the share of net exports of oil and petroleum products in oil output rose over that period from 47.7 to 73.0%.

Table 28

**Net Exports of Petroleum Products  
in 2002–2011**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*
Net exports of petroleum products, m tons	74.8	78.2	81.4	96.8	103.2	111.5	117.5	123.3	129.9	128.5
Share of petroleum products in net exports of oil and petroleum products, %	29.2	26.8	24.3	27.9	29.5	30.4	32.8	33.4	34.3	34.4

\* Estimated values.

Source: RF Federal State Statistics Service; Federal Customs Service; the author's calculations.

These data point to a significant strengthening of the oil sector's orientation towards exports by comparison with the pre-reform period. However, it should be remembered that this phenomenon has been associated not only with growth in the volume of exports in absolute terms, but also with a significant drop in the domestic oil consumption as a result of market transformation of the Russian economy. Rapid economic growth in the years preceding the financial and economic crisis of 2008–2009 was accompanied by stable volumes of domestic oil consumption, which is a manifestation of a declining oil intensity of Russia's GDP.

In 2011, the rising international oil prices triggered dramatic growth of incomes in the oil sector of Russia's economy (*Fig. 48, 49*). The aggregate revenues from exports of oil and the major types of petroleum products (motor gasoline, diesel fuel and fuel oil) in January–November 2011 reached the level of \$ 235.7bn – a historic high for the entire post-reform period (*Table 29*). For reference it can be noted that the historic low of revenues from oil exports was observed in 1998, in response to the drop in the international oil prices, when proceeds from exports amounted to only \$ 14bn.

Table 29

**Revenues from the Export of Oil and Petroleum Products  
in 2000 – 2011, bn USD**

	2000	2005	2006	2007	2008	2009	2010	2011 (11 months)
Revenues from export of oil and major types of petroleum products	34.9	112.4	140.0	164.9	228.9	141.2	193.9	235.7

Source: calculations are based on data provided by the RF Federal State Statistics Service.

In 2011, under the influence of rising international oil prices, the share of fuel and energy products in Russian exports hit the level of 69.2%, including crude oil – 34.7% (*Table 30*).

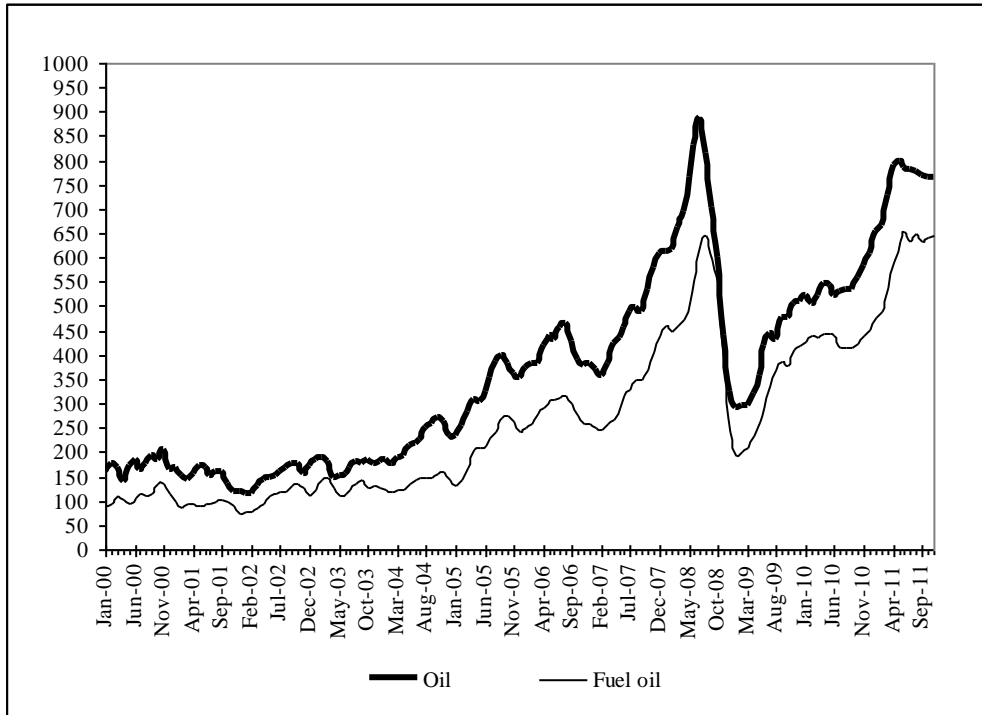
Table 30

**Value and Share of Exports of Fuel and Energy Products  
in 2005–2011**

	2005		2008		2009		2010		2011	
	bn USD	%*	bn USD	%*	bn USD	%*	bn USD	%*	bn USD	%*
Fuel and energy products, total	154.7	64.1	321.1	68.6	201.1	66.7	267.7	67.5	357.2	69.2
including:										
oil	83.8	34.7	161.2	34.4	100.6	33.3	134.6	34.0	179.1	34.7
natural gas	31.4	13.0	69.1	14.8	42.0	13.9	47.6	12.0	63.8	12.4

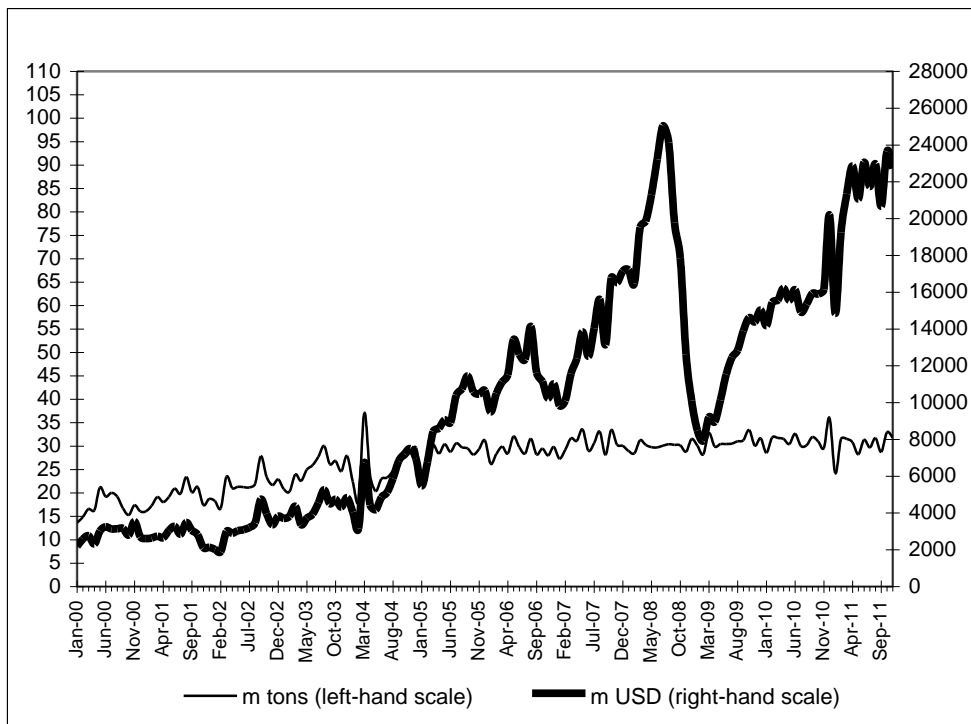
\* As % of total Russian exports.

Source: RF Federal State Statistics Service.



Source: calculations are based on data provided by the RF Federal State Statistics Service.

Fig. 48. Mean Export Prices of Oil and Fuel Oil in 2000–2011, USD/ton



Source: calculations are based on data provided by the RF Federal State Statistics Service.

Fig. 49. Exports of Oil and Petroleum Products (Physical Volume and Value) in 2000–2011, in m tons and m USD

### The Behavior of Prices for Energy Products on the Domestic Market

The changes in international oil prices in 2011 induced a noticeable growth in the prices of oil and petroleum products on the domestic market. However, their prices so far have not reached their historic peaks of July 2008, when the average domestic oil price (producer price) in dollar terms hit the level of 410.2 USD/ton, and the average price of motor gasoline amounted to 810.3 USD/ton. In late 2008 – early 2009, in response to the decline of international oil prices, the domestic prices of oil and petroleum products likewise dropped in dollar terms. However, later on, as international oil prices once again began to climb, the domestic prices also demonstrated a significant growth (Table 31, Fig. 50, 51).

Table 31

**Domestic Prices of Crude Oil, Petroleum Products and Natural Gas Expressed in US dollars in 2000 – 2011 (Average Producer Prices, USD/ton)**

	2000 December	2005 December	2006 December	2007 December	2008 December	2009 December
Crude oil	54.9	167.2	168.4	288.2	114.9	219.3
Motor gasoline	199.3	318.2	416.5	581.2	305.1	457.4
Diesel fuel	185.0	417.0	426.1	692.5	346.5	394.8
Furnace fuel oil	79.7	142.7	148.8	276.5	125.0	250.8
Natural gas, USD/thousand cubic meters	3.1	11.5	14.4	17.6	18.1	16.9

*cont'd*

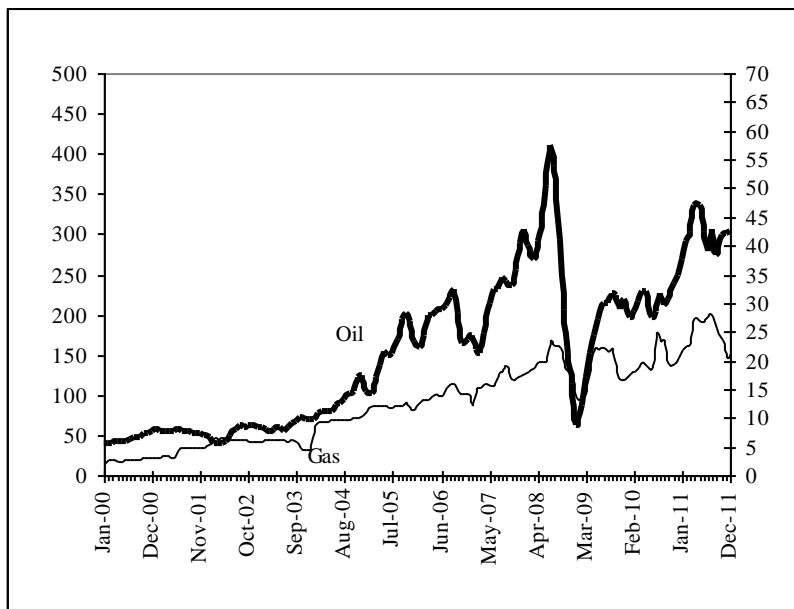
	2010 December	2011 January	2011 March	2011 June	2011 September	2011 December
Crude oil	248.2	269.2	304.4	302.7	273.2	303.3
Motor gasoline	547.9	524.9	556.7	647.7	607.5	576.9
Diesel fuel	536.1	570.9	584.5	605.2	553.0	644.9
Furnace fuel oil	246.3	264.0	281.7	308.8	303.0	274.6
Natural gas, USD/thousand cubic meters	20.5	21.9	23.1	26.8	25.7	21.3

Source: calculations are based on data provided by the RF Federal State Statistics Service.

At the same time, Russia's domestic oil prices, as before, remain at a level significantly below that of international oil prices. The gap between the international and domestic oil prices is caused by objective factors: the export duty on oil and the additional transportation costs associated with oil exports. As for the domestic prices of natural gas, these so far have been subject to government regulation. In order to sustain the competitive capacity of Russia's national economy, the RF government maintains the domestic prices of natural gas at a significantly lower level than the prices on the European market.

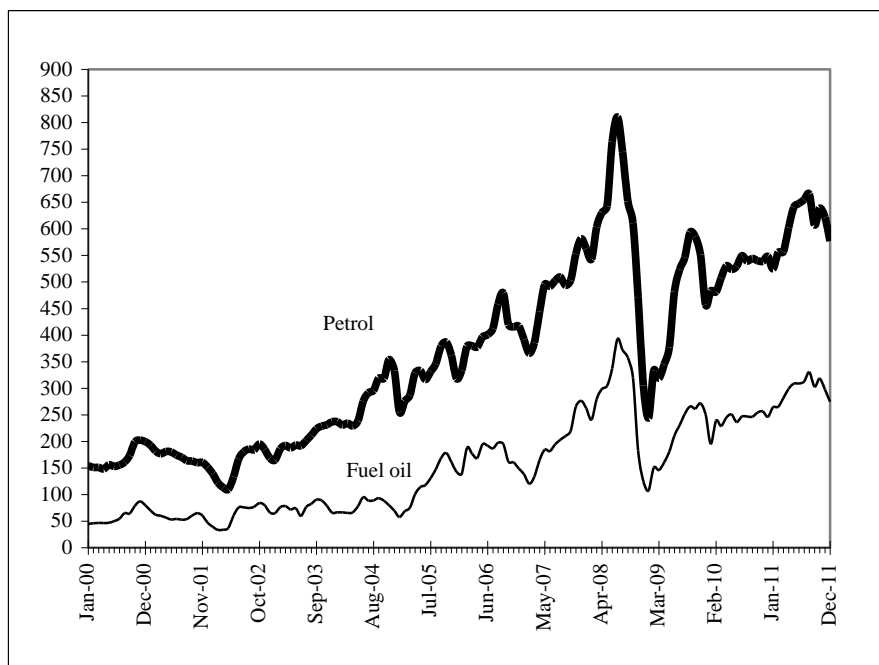
An extraordinary event for Russia was the so-called *gasoline crisis* in April – May 2011, whose manifestation was an acute shortage of gasoline in some regions. As a result, these regions experienced a rapid surge of gasoline prices (thus, for example, in mid-May in the Republic of Tyva the prices of gasoline at independent filling stations that did not belong to the vertically integrated structures of oil companies were as high as 50 Rb/liter, while Russia's average price was only 24.8 Rb/liter). Such a situation became possible due to increasing gasoline

exports coupled with their shrinking supplies on the domestic market. In this connection, in order to limit exports and fill the domestic market, the export duty on gasoline from May onwards was raised from 67% to 90% of the export duty on oil.



Source: calculations are based on data provided by the RF Federal State Statistics Service.

Fig. 50. Average Producer Prices of Oil and Natural Gas in Dollar Terms in 2000–2011, USD/ton, USD/1000 m³



Source: calculations are based on data provided by the RF Federal State Statistics Service.

Fig. 51. Average Producer Prices of Motor Gasoline and Furnace Fuel Oil in Dollar Terms in 2000–2011, USD/ton

The gasoline crisis had two main causes: the government's pricing policy – namely, the freezing of the prices of gasoline on the domestic market; and the introduction of new technical standards for motor fuel. In January 2011, in response to the rise in international prices and increased rates of excises, the domestic price of petroleum products also climbed up. However, already in early February the RF government, operating, as it frequently happens, in micro-management mode, recommended Russia's oil companies that the prices of gasoline and diesel fuel should be reduced, after which the prices obligingly dropped. In February, March and April the retail prices of gasoline in Russia were below the January level and only slightly above the December 2010 level, while the producer prices were below their December level (Table 32).

Table 32

**Prices of Motor Gasoline in Russia in 2010–2011, ruble/liter**

	<b>2010 December</b>	<b>2011 January</b>	<b>2011 February</b>	<b>2011 March</b>	<b>2011 April</b>	<b>2011 May</b>
Consumer prices of Au92 motor gasoline (Au93, etc.)	23.42	24.25	23.66	23.42	23.63	25.11
Au95 and higher	25.29	26.11	25.60	25.42	25.56	26.89
Producer price of: Au92	12.33	11.48	11.98	11.56	12.21	13.36

Source: RF Federal State Statistics Service.

At the same time, the prices of oil and petroleum products on the world market displayed rapid growth. The price of Urals on the European market rose from 89.5 USD/barrel in December 2010 to 119.2 USD/barrel in April, or by 33%. The price of gasoline on the European market (less indirect taxes) over the same period rose from 0.566 euro/liter to 0.738 euro/liter, or by 30% (Table 33). In Russia, on the contrary, the domestic price of gasoline (producer price) in April was below its December level by 1%, while the retail price of Au92 gasoline rose only by 0.5%. As a result, exports turned out to be more profitable than supplies on the domestic market, and so oil companies responded to that situation by increasing their volume of gasoline exports. According to Rosstat's data, exports of motor gasoline in January – April 2011 rose on the same period of 2010 by 16.0%, while the share of exports in gasoline output increased to 13.6%.

Table 33

**Prices of Motor Gasoline in Germany\*  
in 2010–2011, euro/liter**

	<b>2010 December</b>	<b>2011 March</b>	<b>2011 April</b>
Consumer price	1.453	1.587	1.658
Tax on consumers	0.887	0.908	0.920
Price less taxes	0.566	0.679	0.738

\* Price of Au95.

Source: OECD/IEA.

In this connection, an important role was also played by the introduction of new technical standards for fuel. From 1 January 2011, Russia introduced Euro-3 fuel standard for motor gasoline, with the result that class 2 gasoline (of lower quality) was either no longer produced, or was produced exclusively for exports. Some oil companies, for technical reasons, were unable to replace the production of that class of gasoline by class 3 gasoline, which had a negative impact on the overall gasoline supply. In January – April 2011, the volume of gasoline produc-

tion amounted to 99.7% of that in the same period of 2010; in particular, the April 2011 volume was only 96.4% of the volume produced in April 2010.

In these conditions, the introduction of an elevated (restrictive) export duty on gasoline in the amount of 90% of the rate of the export duty on oil, as well as a weaker administrative pressure on prices made it possible to increase the supplies of gasoline on the domestic market and thus bring the situation back to normal. Later on, it was decided that this rate of the export duty on gasoline should be maintained.

### Tax Regulation of the Oil and Gas Sector

A positive influence on the oil sector was produced by alterations in the system of taxation designed to lower the tax load, create incentives for deeper oil extraction from existing oil fields and to encourage the development of new oil deposits in untapped regions and on the continental shelf. From the year 2009 onwards, the non-taxable minimum in the formula for calculating the  $C_p$  coefficient (which reflects the movement of world oil prices and is applied to the Mineral Resources Extraction Tax (MRET) basic rate for oil) was increased from 9 USD per barrel to 15 USD per barrel (*Table 34*). This resulted in a significant reduction in the MRET rate for oil extraction. Besides, the requirement that the direct method for calculating the physical quantity of oil extracted from each ring-fenced field should be used when applying the regressive coefficient to the MRET rate for highly depleted deposits was abolished. This measure made it possible to extend this benefit to all depleted deposits, thus creating incentives for the prolongation of their exploitation and making some additional oil extraction feasible.

*Table 34*

**The MRET Rate for Oil Extraction in 2005 – 2011**

	2005	2006	2007	2008	2009	2010	2011
MRET basic rate for oil extraction, Rb/ton	419	419	419	419	419	419	419
Coefficient characterizing movement of world oil prices ( $C_p$ )	$(P-9) \times R/261$				$(P-15) \times R/261$		
Coefficient characterizing degree of deposit depletion ( $C_d$ )	-		$3.8-3.5 \times N/V$				

*Note:*  $P$  = average price of one barrel of Urals (USD per barrel) for tax period;  $R$  = average Rb / USD exchange rate for tax period as established by the RF Central Bank;  $N$  = cumulative oil production per ring-fenced field;  $V$  = initial producible oil reserves of A, B, C1, and C2 categories per ring-fenced field.

*Source:* RF Tax Code; Federal Law of 22 July 2008, No. 158-FZ; Federal Law of 27 July 2006, No. 151-FZ; Federal Law of 7 May 2004, No. 33-FZ.

In order to stimulate the development of untapped basin provinces, tax holidays with regard to MRET were established for the new oil fields situated in territories with no infrastructure (*Table 35*). Thus, for example, for the development of new oil fields in the East Siberian Oil and Natural Gas Basin Province within the border of the Republic of Sakha (Yakutia), in Irkutsk Oblast and in Krasnoyarsk Krai, the zero rate export duty was introduced on oil production up to the volume of 25m tons per ring-fenced field if the established period of 10 years for its development is not exceeded; or for a period of 10 years under a license obtained for the use of land for the purpose of exploration and extraction, or for a period of 15 years under a license obtained for the simultaneous geological prospecting and exploration work and extraction, beginning from the moment of State registration of a license.



In order to additionally stimulate the development of the oil deposits of the East Siberian Oil and Natural Gas Basin Province, the RF Government introduced, from 1 December 2009 onwards, the zero rate export duty on oil from new oil fields in East Siberia, which was applied until 1 July 2010. Then the RF Government with regard to that oil switched over to a lower rate of export duty. From December 2010, the lower rate of export duty was also applied to the oil fields in the Caspian Sea.

Table 35

**Russia's Regions Eligible for and the Parameters of MRET Tax Holidays Applied to Oil Extraction**

Region	Cumulative oil extraction per ring-fenced field, m tons	License period for exploration and extraction, years	License period for geological prospecting and extraction, years	Date of introduction
1. Republic of Sakha (Yakutua), Irkutsk Oblast, Krasnoyarsk Krai	25	10	15	01.01.2007
2. Continental shelf north of Arctic Circle	35	10	15	01.01.2009
3. Nenets AO, Yamal Peninsula	15	7	12	01.01.2009
4. Azov and Caspian Seas	10	7	12	01.01.2009
5. Black Sea	20	10	15	01.01.2012
6. Sea of Okhotsk	30	10	15	01.01.2012
7. Yamalo-Nenets AO north of 65°N	25	10	15	01.01.2012

Source: RF Tax Code; Federal Law of 21 July 2011, No. 258-FZ.

The year 2011 saw the introduction of some more amendments to the RF Tax Code in connection with the alteration in the taxation of the oil and gas sector, which came into force from January 2012. In order to create incentives for developing small oil fields, from the year 2012 onwards a downward coefficient is to be applied to the rate of MRET levied on oil extraction, which specifies the size of oil reserves in a given ring-fenced field ( $C_r$ ). That coefficient is computed by applying a special formula to ring-fenced fields with initial producible oil reserves of up to 5m tons and depletion of up to 0.05. Prior to that, the procedure for computing MRET levied on oil extraction envisaged no gearing of the tax rate by the size of oil reserves. The result was that, as a rule, the development of smaller oil fields with producible oil reserves of up to 5m tons was not feasible due to the high per unit capital and exploitation costs. At the same time, the register of state reserves of mineral resources incorporates about one thousand oil fields with producible oil reserves of up to 5m tons and depletion of less than 5%, with cumulative untapped oil reserves of 1bn tons.

The downward coefficient  $C_r$  when applied to the rate of MRET must create appropriate conditions for developing new small oil fields the operation of which would not be feasible under the generally applied taxation system. Thus, it will become possible to recover some additional oil reserves accumulated in such fields.

Within the framework of implementing the policy designed to stimulate the development of new region for oil production, in 2011 the MRET holidays regime was extended to the new oil fields situated in Yamalo-Nenets AO north of 65°N. It is suggested that, to the oil fields situated in that region (with the exception of those in the Yamal Peninsula), the zero rate of MRET is to be applied until the cumulative oil production volume of 25m tons per ring-fenced field is achieved, or for a period of 10 years under a license obtained for the use of land for the purpose of exploration and extraction, or for a period of 15 years under a license obtained for the simultaneous geological prospecting and exploration work и extraction, beginning from the moment of State registration of a relevant license.

The MRET holidays regime was also extended to the oil fields situated in the Black Sea and the Sea of Okhotsk.

These measures are designed to create the necessary economic conditions for developing the oil fields in Yamalo-Nenets Autonomous Okrug, the Black Sea and the Sea of Okhotsk, the operation of which under the generally applied tax regime is not cost-effective because of the huge capital inputs needed for building an appropriate infrastructure compatible with their geographic and geological specificities.

It appears feasible to introduce, within the framework of the existing tax system, differentiated tax loads for regions where mineral resources extraction is associated with higher costs, because this will ensure adequate returns on the investments in the development of new deposits. At the same time, the mechanism of tax holidays, while being simple to apply from the point of view of tax administration, is rather imperfect. It means one and the same generalized approach to all the oil fields situated in a given region (or shelf zone), which does not take into account the real (very broad) variations in the cost of development of each specific oil field. As a result those fields that require highest investments may remain undeveloped.

A better form of levying tax on oil extraction would be taxation of the additional (net) income. Such an approach would ensure an automatic differentiation of tax load depending on the specific conditions of oil production. In this case, not only a producer's gross proceeds are taken into account (as it happens when MRET and export duties are applied), but also the cost of oil extraction in a given oil field. This regime makes it possible to create the necessary pre-conditions for developing new oil fields the operation of which is associated with higher capital input and exploitation and transport costs.

The amendments introduced in 2011 in the RF Tax Code have dramatically increased the rate of MRET on natural gas. Over the period of 2006 to 2010 its rate remained at the same level, while the wholesale prices of natural gas more than doubled. As a result, the rate of MRET on natural gas during those years significantly declined both in real and relative terms (as a percentage of its price). From 1 January 2011, an index of 1.61 was applied to the tax rate, which effectively corresponded to the cumulative inflation rate over the period of 2007–2010. However, the high profitability indices of the activities relating to the production, transmission and sale of natural gas were indicative of a lower level of tax load on the Russian gas sector as compared to the oil sector, and thus of the existence of a potential for a further substantial increase of the rate of MRET. In this connection, from the year 2012 onwards the rate of MRET levied on natural gas was raised to 509 rubles per 1,000 cubic meters, or by 2.15 times on 2011. It is envisaged that in 2013–2014 the rate of MRET on natural gas will be raised somewhat further (*Table 36*). At the same, a downward coefficient is to be applied to those organizations that do not own any objects belonging to the Unified Gas Supply System of Russia, or in which the stakes owned by the owners of objects belonging to the Unified Gas Supply System of Russia are no more than 50%: in 2012 – 0.493; in 2013 – 0.455; and from 2014 onwards – 0.447.

*Table 36*

**Rate of MRET Applied to Oil and Natural Gas Production in 2010–2014**

	2010	2011	2012	2013	2014
MRET on oil production, Rb/ton	419	419	446	470	470
MRET on natural oil production, Rb/1,000 m <sup>3</sup>	147	237	509	582	622

Source: RF Tax Code.

Thus, the recently adopted decisions have significantly increased the tax load on OJSC *Gazprom*. That company owns the Unified Gas Supply System of Russia and derives the corresponding income from transmission and export of natural gas. For independent natural gas producers, on the contrary, the rate of MRET is only indexed according to the inflation rate and thus remains at a relatively low level (in 2012 – 251 rubles per 1,000 cubic meters).

Besides, in 2011 the scheme for levying taxes on exports of oil and petroleum products was altered, From 1 October 2011 onwards, the general rate of the export duty on oil was decreased by changing the coefficient value from 0.65 to 0.60 (*Table 37*). This measure resulted in a diminished tax load on the oil extracting industry, which must promote oil production.

*Table 37*

### Marginal Rates of Export Duty on Oil

International price of Urals	Rate, USD/ton
Up to 15 USD/barrel	0
From 15 to 20 USD/barrel	$0.35 \times (P - 15) \times 7.3$
From 20 to 25 USD/barrel	$12.78 + 0.45 \times (P - 20) \times 7.3$
Over 25 USD/barrel	$29.2 + 0.65 \times (P - 25) \times 7.3$

**Note.** P is price of Urals (USD/barrel)

*Source:* RF Law ‘On Customs Tariff’.

The rates of export duties on petroleum products are set at a lower level than those of export duties on oil, which represents a form of subsidizing Russian oil refineries and promotes exports of petroleum products. In recent years, the rate of the export duty on white petroleum products amounted to approximately 0.72 of the rate of the export duty on oil, while that on dark petroleum products – to approximately 0.39.

The lower export duties on petroleum products are conducive to increasing domestic volumes of oil refinement and growth of exports of its products. While the volume of oil production over the period of 2006–2010 rose by 7.5%, that of primary oil refining increased by 19.9%, and exports of petroleum products – by 36.3%. The growth by 85% of oil refining volumes over the same period occurred due to increased exports of petroleum products.

At the same time, this differentiation of export duties was by no means conducive to increasing Russia's oil refining efficiency. In 2011, the depth of oil refining in Russia was only 71%, which means that it had changed little over the previous decade (in developed countries this index now amounts to 90–95%). The growth of Russia's exports of petroleum products was caused in the main by increasing volume of exports of fuel oil, which in Europe is used as raw material for further refining and conversion into white petroleum products.

In 2006–2010 the nearly 3/4 growth of exports of petroleum products resulted from an increase, by 55.8%, of exports of fuel oil, while the share of fuel oil in aggregate exports of petroleum products rose to 54.5%. In this connection, the share of exports of fuel oil in the volume of its output exceeded 90%.

In this situation it is becoming increasingly evident that in order to promote modernization of Russia's oil refining industry and the depth of oil refining it would be feasible to switch over to a single rate of export duty on white and dark petroleum products, and also to approximate it to the export duty on oil. In late 2010 it was decided that, over the next two years, a single rate of export duty on petroleum products amounting to 60% of the rate of export duty on crude oil would be introduced (*Table 38*).

Table 38

**Rates of Export Duties on Petroleum Products Established from 1 January 2011  
(Coefficients Applied to the Rate of Export Duty on Oil)**

	2011	2012	2013
White petroleum products (middle and light distillate products, diesel fuel, etc.)	0.67	0.64	0.60
Dark petroleum products (fuel oil, lubricants, etc.)	0.467	0.529	0.60

Source: Decree of the RF Government of 27 December 2010, No. 1155.

However, in 2011 it became clear that the newly introduced rates had not provided an adequate solution to the problem. The volumes of fuel oil production and exports continued to grow, while the depth of oil refining remained at the same level. Moreover, in April and May 2011 some Russian regions experienced acute shortages of gasoline ('the gasoline crisis') that resulted from its increasing volume of exports coupled with declining volumes of production. In that situation, in May 2011, in order to satisfy domestic demand, an increased (restrictive) export duty on oil was introduced. Then the rates of export duties on the other petroleum products were also revised. The new rates of export duties were introduced from 1 October 2011 (Table 39).

Table 39

**Rates of Export Duties on Petroleum Products Established from 1 October 2011 r.  
(Coefficients Applied to the Rate of Export Duty on Oil)**

	From 1 October 2011 through 31 December 2014	From 1 January 2015
Commercial gasolines, straight run gasolines	0.90	0.90
Middle and light distillate products, diesel fuel	0.66	0.66
Fuel oil, lubricants, etc.	0.66	1

Source: Decree of the RF Government of 26 August 2011, No. 716.

The purpose of the alterations introduced in 2011 in the taxation system is to promote oil production, to intensify modernization of the oil refining industry and to increase Russia's oil refining efficiency.