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

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**Yury Bobylev**

## **Oil-and-Gas Sector**

The oil-and-gas sector has continued being the cornerstone to Russia's economy and as such it plays a pivotal role in forming the state budget revenue and the nation's balance of trade. In 2010, it was the situation in the global oil market, the one in the European gas market, and an objective deterioration of conditions of oil and gas production, decline in output at "old" fields and a considerably greater costs of development of new ones, particularly in the undeveloped regions with no infrastructure therein, that exerted the greatest influence on the national oil-and-gas sector's advancement.

### 4.4.1. The Dynamic of World Oil and Gas Prices

The recovery of the global economy in the aftermath of the financial and economic crisis had a determining impact on the situation on the global oil market in 2010. In 2008, on the eve of the global crisis, the world oil prices had hit an extremely high level. In July 2008, the average monthly oil prices overshot USD 130/bbl., thus hitting their historical peak, both in nominal and real terms. The main factors propelling the price rise were: an increased demand for oil fueled by high growth rates of the global economy, China, India and other Asian economies' ones in particular, the OPEC's conservative policy in respect to its members' oil output, and low oil production rates outside OPEC. A serious factor that contributed to the oil price boom became a sizeable influx of speculative capital onto commodity exchange markets. In the last months of 2008, the deceleration of the global economic growth rates, decline in demand for oil in developed economies and the capital outflow from the commodity exchange markets sent global oil prices nosedive to USD 40/bbl in December 2008, ie more than thrice vis-à-vis their July 2008 figures (*Tables 23, 26*). In the conditions of a drastic downfall in world oil prices in the 2<sup>nd</sup> half 2008, in an attempt to maintain oil prices, OPEC made a number of decisions on contracting its members' output. However, in the conditions of decline in demand for oil in the developed countries as a consequence of the already started recession those measures had no visible effect on the market. In December 2008, OPEC ruled to cut the daily oil output by 4.2 mln. bbl vs. the September 2008 level, effective as of 1 January 2009.

In 2009, the contraction in oil demand in developed countries, which was caused by the financial and economic crisis (*Table 24*) was compensated by soaring demand on the part of emerging economies, China in the first place, and by the OPEC countries slashing their oil output, and some other oil producing nations (Norway, UK, and Mexico) followed the move. Over the last months of the year, the dynamic of oil prices found itself under a positive impact of renewed economic growth in the leading industrially developed nations. As a result, the world oil prices climbed from USD 40/bbl in the late-2008 up to USD 74-75/bbl in Q4 2009. In the circumstances, at its 2009 conferences OPEC ruled to retain its members' quotas, which had been set on 1 January 2009, unchanged.

In 2010, a steady economic growth in Asia, China in the first place, as well as a renewed economic growth in the OECD nations, primarily in the US, fueled a considerable rise in the global demand for oil (*Table 25*). Those factors were complemented by a relatively severe weather in the Northern hemisphere in Q4 2010. Propelled by the growing global demand, the OPEC production was on the upsurge, albeit at a gradual pace. It was Nigeria and Saudi Ara-

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bia that should take the bulk of credit for the rising OPEC's output. Overall, the 2010 OPEC's oil output was greater than the 2009 figures, but substantially lower than the 2008 ones. Norway and UK saw their oil production at the fields in the North Sea continue to decline. Driven by the aforementioned factors, in the last months of 2010 the world oil prices left the range of USD 70-80/bbl., wherein they were over most part of the year and hit USD 90/bbl in December 2010. (Tables 26, Fig. 31). In 2010, Russia's Urals was traded on the global (European) market at the level of USD 78/3/bbl. on the average, or up by 28.4% vs. the previous year's level.

Table 23

### World Prices of Oil in Nominal Terms in 2000–2010., as USD/bbl.

	2000	2005	2006	2007	2008
Price of Brent, UK	28.5	54.4	65.2	72.5	97.7
Price of Urals, Russia	26.6	50.8	61.2	69.4	94.5
Price of the OPEC oil basket	27.6	50.6	61.1	69.1	94.1

Table 23 (cont'd)

	2009	2009	2009	2009	2009
	Q1	Q2	Q3	Q4	
Price of Brent, UK	45.0	59.1	68.4	75.0	61.9
Price of Urals, Russia	43.7	58.1	68.0	74.3	61.0
Price of the OPEC oil basket	42.9	58.5	67.7	74.3	60.9

Table 23 (cont'd)

	2010	2010	2010	2010	2010
	Q1	Q2	Q3	Q4	
Price of Brent, UK	76.7	78.7	76.4	86.8	79.6
Price of Urals, Russia	75.3	76.9	75.6	85.2	78.3

Source: IMF, OECD/IEA, OPEC.

Table 24

### Global Oil Consumption in 2008–2009, as % to the Respective Period of the Prior Year

	2008	2009	2009	2009	2009	2009
		Q1	Q2	Q3	Q4	
The world, total	-0.6	-3.2	-2.5	-0.6	0.9	-1.3
OECD nations	-3.6	-5.2	-6.1	-3.6	-2.9	-4.5
Including:						
North America	-5.2	-5.4	-6.1	-1.3	-1.6	-3.6
Europe	-0.6	-2.9	-5.7	-7.1	-6.7	-5.6
APR	-4.0	-8.5	-7.2	-3.5	0.5	-4.8
Non-OECD countries	3.3	-0.6	1.9	3.0	5.8	2.5
Including:						
Asia (less Middle-East and ex-USSR countries )	1.7	-0.8	4.8	6.7	12.5	5.8

Source: OECD/IEA.

Table 25

### Global Oil Consumption in 2010, as % to the Respective Period of the Prior Year

	2010	2010	2010	2010	2010
	Q1	Q2	Q3	Q4	
The world, total	2.3	3.3	3.8	3.5	3.2
OECD nations	-1.1	1.6	3.6	1.7	1.5
Including:					
North America	0.6	3.6	4.1	2.1	2.6
Europe	-4.9	-1.1	2.2	1.8	-0.5
APR	0.9	0.6	4.8	0.4	1.6
Non-OECD countries	6.5	5.2	4.0	5.5	5.3
Including:					

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Asia (less Middle-East and ex-USSR countries)      9.9      6.5      3.8      6.9      6.7

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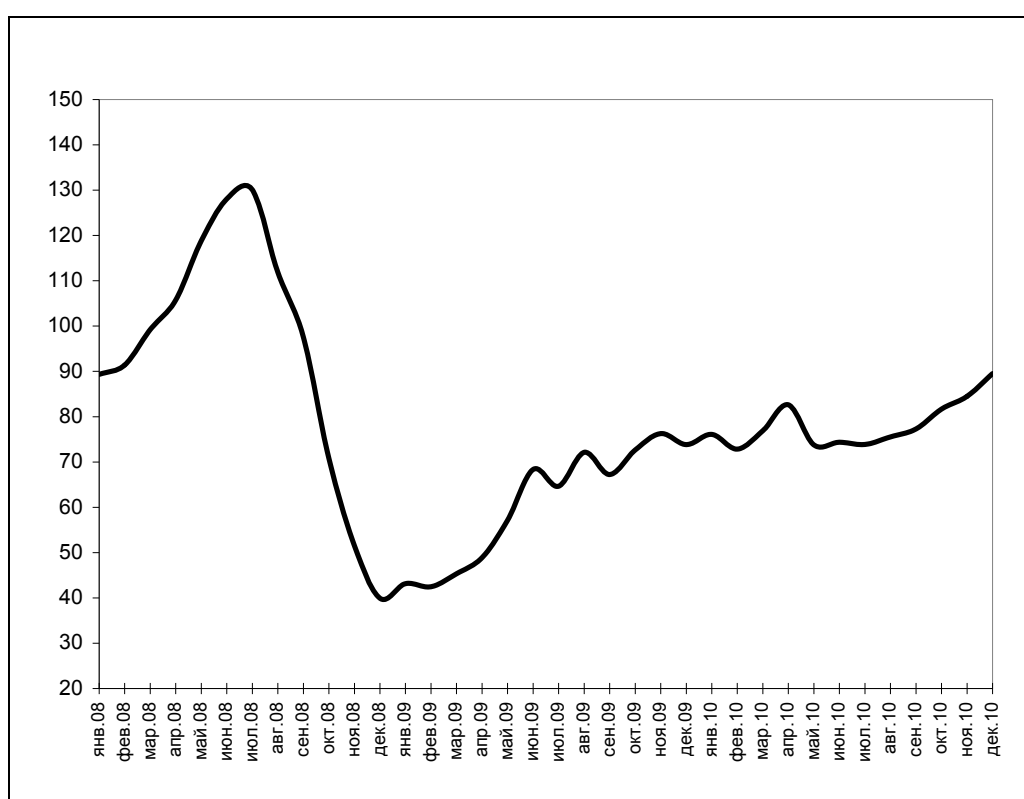
Source: OECD/IEA.

*Table 26*

**Global Prices of Oil in 2010, as USD/bbl**

	January	February	March	April	May	June	July	August	September	October	November	December
Price of Brent, UK	76.2	73.6	78.9	84.9	75.2	74.9	75.6	77.2	77.8	82.7	85.3	91.4
Price of Urals, Russia	76.1	72.9	76.9	82.6	73.8	74.4	73.9	75.5	77.3	81.7	84.5	89.5

Source: OECD/IEA, OPEC.



Source: The RF Ministry of Economic Development.

*Fig. 31.* Price of Urals in 2008–2010, USD/bbl.

Prices for natural gas on the global market are determined, as a rule, on the basis of prices of energy sources alternative to gas (chiefly AOD/diesel fuel, and fuel oil), which depend on world prices of oil. That is why the world prices for natural gas follow oil prices, but with a certain lag. On the European market, following the oil prices, the ones of the Russian gas likewise hit their peak value in 2008 and declined in 2009 (*Table. 27*).

In 2010, the gas prices were on the upsurge; however, in contrast to oil prices, if averaged over the year, they were below the 2009 figures. This can be ascribed to the impact of two factors. First, the lag between oil and gas prices determined the latter ones passing the price nadir at a moment of time later than that for oil prices. While the minimum quarterly prices

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for oil were noted in Q1 2009, those of gas – in Q3 2009 (Table 28). Second, the change of the situation on the European gas market – namely, a considerable rise in offer of gas, a sizeable growth in LNG supplies in tandem with a lower level of spot prices for gas vis-à-vis prices quoted in long-term contracts drove the 2010 Russian gas prices down.

In 2009–2010, the spot gas prices on the European market were lower than the ones of the Russian pipeline gas supplied under long-term contracts (Table 29). Behind the phenomenon were a growing offer of gas, primarily by Norway and Qatar, decline in demand for gas in the conditions of the recession, and a more flexible pricing policy with regard to LNG (contract prices of pipeline gas are determined on the basis of prices of substitute fuels over previous periods, which is why they react to the market situation with a certain lag).

The EU policy on diversification of sources of energy supplies, creation the European RLNG infrastructure, and lower LNG prices in 2009-2010 have entailed a certain decline in the proportion of the Russian gas on the European gas market. According to the East European Gas Analysis, Russia's share in gas imports from outside the EU to the European countries that hold membership in OECD plunged from 39% in 2008 to 33% in the first half 2010, while Norway's share soared from 23 to 27%, and that of Qatar– from 2 up to 8%.

Table 27

#### World Prices for Oil and Natural Gas in 2002–2010, as USD/bbl.

	2002	2003	2004	2005	2006	2007	2008	2009	2010
The average world oil price, USD/bbl	24.95	28.89	37.76	53.4	64.3	71.1	97.0	61.8	79.0
The prices of Russian gas on the European market, USD/Thos. c. m.	96.0	125.5	135.2	212.9	295.7	293.1	473.0	318.8	296.0

Source: IMF.

Table 28

#### Prices for Oil and Natural Gas on the European Market in 2009–2010, USD/bbl

	2009 Q1	2009 Q2	2009 Q3	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4
The price of Brent, USD/bbl.	45.0	59.1	68.4	75.0	76.7	78.7	76.4	86.8
The prices of Russian gas on the European market, USD/Thos. c. m.	503.5	309.6	229.8	232.2	273.2	291.4	306.5	313.0

Source: IMF.

Table 29

#### Contract Prices of Pipeline Gas and Spot Prices of LNG in 2010

	January	February	March	April	May	June	July	August	September	October	November	December
The average price of Russian pipeline gas in Europe, USD/USD/Thos. c. m.	273	273	273	301	283	290	305	309	306	311	314	314
Spot prices of LNG in Germany, USD/Thos. c. m.	230	214	182	194	222	237	270	255	268	287	295	360

Source: OAO «Gazprom», IMF.

#### 4.4.2. Dynamic and Structure of Production in the Oil-and-Gas Sector

The rise in oil output in Russia in the early 2000s was propelled by extending opportunities for oil export, thanks to the creation of the Baltic pipeline system and the use of railroad transport in particular, as well as by intensification of development of existing fields and the oil companies' greater opportunities due to the price rise for oil. Later, though, the oil production growth rates plunged substantially. While in 2002-2004 the annual oil production increase rate was 8.9–11%, the 2006–2007 figures made up just 2,1%, and the year of 2008, for the first time over recent years, saw oil production decline. That was a clear sign of exhaustion of reserves to boost the nation's oil output at the expense of intensification of development of operating fields, which testifies to the need for more pro-active measures on developing new oil areas.

The growth in oil production renewed in 2009, though the increase rate was relatively low (1.2% vs. the prior year). In 2010, the increase rate accounted for 2.1% thus matching the 2005-2007 figures (*Tables. 30, 31*). The dynamic of oil output found itself driven by placement in operation of several new large oil fields in the north of Russia's European part and in Eastern Siberia as well as by enactment of a number of amendments to the Tax Code of RF aimed at lowering the tax burden on the oil sector, encouraging a more intense development of existing fields and developing new production areas.

*Table 30*

#### **Oil Production and Refining in Russian Federation in 2000–2010**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Production of oil, including gas condensate, mln. tn.	323.2	348.1	379.6	421.4	458.8	470.0	480.5	491.3	488.5	494.2	505.1
Primary oil refining, mln. tn.	173	179	185	190	195	208	220	229.0	236.3	236.0	249.3
The 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	49.4
Refining depth of petroleum feedstock, %	71	71	70	70	71	71.6	71.9	71.7	72.0	71.9	71.2

*Source:* the Federal State Statistics Service, the RF Ministry of Energy.

Oil processing has recently grown at a pace greater than its extraction, which can be ascribed chiefly to an accelerated growth in export of oil products, which was encouraged by export duties on oil products being lower than the ones levied on crude oil. Between 2005 and 2010 (except for 2009) the annual growth rates of primary oil refining accounted for 3.2–6.2% vis-à-vis the annual oil output growth rates that made up 1.2–2.2% (except for the 2008 figures). As a result, the proportion of refined oil in oil output surged from 42.5% in 2004 to 49.4% in 2010. That, however, was still way behind the 2000–2001 figures: at the time, more than a half of extracted oil was supplied to refineries. Meanwhile, the processing depth has practically remained unchanged over the past decade and accounted just for 71.2% in 2010, which basically quadrates with the 2000 figure (for reference: the respective rate in the leading developed economies accounts for 90-95%). Efficacy of oil refining and quality of Russian oil products still substantially fall short of matching international standards.

Table 31

**Production of Oil, Petroleum Derivatives and Natural Gas in 2000–2010,  
as % to the Prior Year**

	2000	2001	2002	2003	2004
Oil, including gas condensate	106.0	107.7	109.0	111.0	108.9
Primary oil processing	102.7	103.2	103.3	102.7	102.6
Petrol	103.6	100.6	104.9	101.2	103.8
Diesel fuel	104.9	102.0	104.7	102.0	102.7
Black oil fuel	98.3	104.2	107.1	100.3	97.8
Natural gas	98.5	99.2	101.9	103.4	101.6

Table 31(cont'd)

	2005	2006	2007	2008	2009	2010
Oil, including gas condensate	102.2	102.1	102.1	99.3	101.2	102.1
Primary oil processing	106.2	105.7	103.8	103.2	99.6	105.5
Petrol	104.8	107.4	102.1	101.8	100.5	100.5
Diesel fuel	108.5	107.0	103.4	104.1	97.7	104.2
Black oil fuel	105.8	104.5	105.2	101.9	100.8	108.5
Natural gas	100.5	102.4	99.2	101.7	87.9	111.4

Source: the Federal State Statistics Service.

Atop the 2010 list of biggest oil producers in Russia were oil companies Rosneft, LUKOIL, THK-BP, Surgutneftegas, and Gazprom. Their aggregate share in the nation's total oil output accounted for nearly 75%. Meanwhile, medium-sized oil companies' (Tatneft, Slavneft, Bashneft, and Rosneft) share made up 14.2%. Companies operating under PSAs produced another 2.9% of Russian oil, while the share of other oil producers (100-plus small oil extracting organizations) was 7.6% (Table 32). The proportion of state-run (belonging to the federal government) companies in the country's total oil output amounted to 30.8%. To put this in perspective, back in 2003, before their taking over private oil companies' assets, Rosneft and Gazprom combined produced only 7.3% of Russian crude.

Table 32

**Oil Produced by Various Oil Companies in 2008–2010**

	Oil output in 2008, mln. tn.	Share in total output, %	Oil output in 2009, mln. tn.	Share in total output, %	Oil output in 2010, mln. tn.	Share in total output, %
Russia, total	488.5	100.0	494.2	100.0	505.1	100.0
Rosneft	113.8	23.3	116.3	23.5	112.4	22.3
LUKOIL	90.2	18.5	92.2	18.7	90.1	17.8
THK-BP	68.8	14.1	70.2	14.2	71.7	14.2
Surgutneftegaz	61.7	12.6	59.6	12.1	59.5	11.8
Gazprom + Gazprom neft	43.4	8.9	41.9	8.5	43.3	8.6
Including:						
Gazprom	12.7	2.6	12.0	2.4	13.5	2.7
Gazprom neft	30.7	6.3	29.9	6.1	29.8	5.9
Tatneft	26.1	5.3	26.1	5.3	26.1	5.2
Slavneft	19.6	4.0	18.9	3.8	18.4	3.6
Bashneft	11.7	2.4	12.2	2.5	14.1	2.8
Rosneft	14.2	2.9	12.7	2.6	13.0	2.6
NOVATEK	2.7	0.6	3.3	0.7	3.8	0.8
PSA operators	12.0	2.5	14.8	3.0	14.4	2.9
Other producers	24.1	4.9	26.0	5.3	38.2	7.6
<b>Public companies, com- bined:</b>						
Rosneft + Gazprom + Gazprom neft	157.2	32.2	158.2	32.0	155.7	30.8

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



Gazprom traditionally preponderated the gas production area. Meanwhile, as the decline in the national natural gas output can be chiefly ascribed to Gazprom's poorer performance, the company's share in 2009-2010 slid slightly (to 77.2%) vis-à-vis an increasing specific weight of other producers, including oil companies, NOVATEK, PSA operators, and other producers. The 2010 share of public (state-owned) corporations in the nation's gas output accounted for 79.8% (Table 33).

*Table 33*

**Structure of Natural Gas Production in 2008–2010**

	Gas output in 2008, bln. m.	Share in total output, %	Gas output in 2009, bln. m.	Share in total output, %	Gas output in 2010, bln. m.	Share in total output, %
Russia, total	664.9	100.0	596.4	100.0	665.5	100.0
Gazprom + Gazprom neft	553.1	83.2	466.6	78.2	513.9	77.2
Including:						
Gazprom	550.9	82.9	462.3	77.5	509.0	76.5
Oil companies	54.8	8.2	63.5	10.6	66.6	10.0
NOVATEK	30.8	4.6	32.8	5.5	37.8	5.7
PSA operators	8.5	1.3	18.3	3.1	23.3	3.5
Other producers	17.6	2.6	15.2	2.5	23.9	3.6
<b>Public companies, combined:</b>						
Rosneft + Gazprom + Gaz- prom neft	566.1	85.1	484.0	81.2	531.2	79.8

*Source:* the RF Ministry of Energy, author's calculations

The recently noted decline in the oil output growth rate should be ascribed to the objective deterioration of operating conditions in the first place. A considerable fraction of oil fields in Russia has entered the decollement stage, while new fields mostly display worse mining and geological conditions and geographic parameters, and their development requires greater capital, operating and transportation costs.

A drastic fall in gas production in 2009 (by 12.1% on a year-on-year basis) resulted from the drop in the domestic and external demand caused by the recession and a compulsory contraction of gas supplies to Europe in early 2009 because of the "gas conflict" with Ukraine. In 2010, Russia's gas output caught up with its 2008 figures, but export of gas still was far below the pre-crisis level.

#### 4.4.3. Dynamic and Structure of Export of Oil and Gas

The 2010 aggregate net export of oil and oil products was on the rise against the backdrop of growth in oil production and is estimated to hit 376.6 mln. tn.. This is the historic peak for Russia's oil sector. (Tables 34, 35). The specific weight of net export of oil and oil products in oil production accounted for 74.6%. That said, Russia has substantially cut oil supplies to Belarus, as the counterparts could not agree on levying the export duty on the supplies (between January and November 2010 Russian oil supplies to Belarus plunged by nearly 41% on a year-on-year basis). In 2010, oil export accounted for 49.6% of the nation's oil output. The proportion of export in black oil fuel hit 90.9% between January and November 2010, and that in diesel fuel – 59.4%. The 2010 export of petrol plummeted 34.2%, while the share of export of petrol in the respective output slid to 8.5% (for reference: the 1999 figure was 7.2%, the 2005 one – 18.5, in 2008 – 12.5, and in 2009 – 12.6%).

Meanwhile, the year of 2010 saw a notable rise in import of oil products (up 2.4 times on a year-on-year basis) and growth in the share of import in satisfying the domestic demand. The

share of import in petrol resources soared from 0.6% in 2009 to 1.4% in 2010 (for reference: in the 1<sup>st</sup> half 1998 the respective figure was 8.7%, in 2008– 0.7%). The 2010 indices for diesel fuel and black oil fuel stood at 0.8 и 1.1%, respectively.

*Table 34*

**Export of Oil, Oil Products and Natural Gas from Russia in Natural Equivalent  
in 2002–2010, as % on a Year-on-Year Basis**

	2002	2003	2004	2005	2006	2007	2008	2009	2010*
Oil, total	113.9	117.8	115.0	98.4	98.0	104.0	94.0	101.8	101.2
Including:									
Non-CIS countries	109.9	118.9	116.3	99.1	98.0	104.8	92.6	102.9	107.4
CIS countries	137.3	112.4	108.3	94.9	98.0	99.4	102.6	95.4	65.2
Oil products, total	118.5	103.6	105.5	117.9	106.3	108.0	105.0	105.3	105.0
Including:									
Non-CIS countries	119.1	102.6	104.9	119.1	104.5	107.6	102.0	107.1	108.4
CIS countries	102.8	132.3	117.9	94.6	148.8	115.3	152.2	86.8	61.5
Gas, total	102.4	102.0	105.5	103.7	97.6	94.6	101.8	86.2	106.1

\* Estimated.

Source: the Federal State Statistics Service

After a sizeable (by 13.8%) contraction of oil exports in 2009 caused by the fall in export gas supplies to Europe, the next year Russian gas export surged thanks to an increase in supplies to the CIS countries. However, Russian gas export has not yet hit the pre-crisis level. Meanwhile, the specific weight of net export in gas production plummeted from 28.2% in 2008 to 25.6% in 2010.

*Table 35*

**Correlation between Production, Consumption and Export of Oil  
and Natural Gas in 2000–2010**

	2000	2005	2006	2007	2008	2009	2010*
<b>Oil, mln. tn.</b>							
Production	323.2	470.0	480.5	491.3	488.5	494.2	505.1
Export, total	144.5	252.5	248.4	258.4	243.1	247.4	250.4
Export to non-CIS countries	127.6	214.4	211.2	221.3	204.9	210.9	226.6
Export to CIS countries	16.9	38.0	37.3	37.1	38.2	36.5	23.8
Net export	138.7	250.1	246.1	255.7	240.6	245.6	248.6
Domestic consumption	123.0	123.1	131.2	124.1	130.4	125.3	128.5
Net export as % to production	42.9	53.2	51.2	52.0	49.3	49.7	49.2
<b>Oil products, mln. tn.</b>							
Export, total	61.9	97.0	103.5	111.8	117.9	124.4	130.6
Export to non-CIS countries	58.4	93.1	97.7	105.1	107.6	115.4	125.1
Export to CIS countries	3.5	3.9	5.8	6.7	10.3	9.0	5.5
Net export	61.5	96.8	103.2	111.5	117.5	123.3	128.0
<b>Oil and oil products, mln. tn.</b>							
Net export of oil and oil products	200.2	346.9	349.3	367.2	358.1	368.9	376.6
Net export of oil and oil products, as% to oil production	61.9	73.8	72.7	74.7	73.3	74.6	74.6
<b>Natural gas, bln. c.m.</b>							
Production	584.2	636.0	656.2	654.1	664.9	596.4	665.5
Export, total	193.8	207.3	202.8	191.9	195.4	168.4	178.7
Export to non-CIS countries	133.8	159.8	161.8	154.4	158.4	120.5	108.6
Export to CIS countries	60.0	47.5	41.0	37.5	37.0	47.9	70.1
Net export	189.7	199.6	195.3	184.5	187.5	160.1	170.4
Domestic consumption	394.5	436.4	460.9	469.6	477.4	436.3	495.1
Net export as % to production	32.5	31.4	29.8	28.2	28.2	26.8	25.6

\* Estimated.

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

With some growth in the proportion of oil products, the structure of Russia's oil export was still dominated by export of crude, which in 2010 accounted for 66.0% of the aggregate export of oil and oil products. The bulk of the export of oil products was formed by black fuel oil, which Europeans use for further processing, and by diesel fuel. The bulk of energy resources (in 2010 – as much as 90% of oil, 96% of oil products and 61% of gas) was exported to outside the CIS.

Analysis of the dynamic of Russia's oil export over a long period of time evidences an increase therein of the share of oil products, whose specific weight grew from 18.2% in 1990 to 34.0 % in 2010 r. (*Table 36*). With a drastic decline in the domestic consumption (our calculations show it plunged from 269.9 mln. tn. in 1990 to 128.5 mln. tn. in 2010), the specific weight of net export of oil and oil products in oil output increased from 47.7 to 74.6% over the period in question.

*Table 36*

**Net Export of Oil Products in 2002–2010**

	2002	2003	2004	2005	2006	2007	2008	2009	2010*
Net export of oil products, mln. tn.	74.8	78.2	81.4	96.8	103.2	111.5	117.5	123.3	128.0
Share of oil products in net export of oil and oil products, %	29.2	26.8	24.3	27.9	29.5	30.4	32.8	33.4	34.0

\* Estimated.

*Source:* the Federal State Statistics Service, the Federal Customs Service, author's calculations.

The above data evidence a substantial intensification of the oil sector's export orientation against the pre-reform period. That said, it should be noticed that the process in question is associated not only with increase in absolute export volumes, but with a sizeable contraction in the domestic consumption of oil due to the market transformation of Russia's economy, as well. In the period prior to the financial and economic crisis of 2008–2009 the pace of economic growth was high, while the volume of domestic consumption remained fairly stable. This evidences a certain decline in oil intensity rate of Russia's GDP.

The oil price boom in 2008 sent the oil sector's proceeds upswing substantially (*Fig. 32, 33*). That year, aggregate proceeds from export of oil and main kinds of oil products (petrol, diesel fuel and black fuel oil) accounted for USD 228.9 bln., which was a record-breaking amount ever posted over the whole post-reform period. (*Tables 37, 38*). It can be noted for reference that the minimum level of oil export proceeds (USD 14 bln.) was recorded in the conditions of the 1998 price downfall. The fall in oil prices in 2009 likewise resulted in a substantial contraction of export revenues, while the subsequent price rise in 2010 made export proceeds bounce upwards substantially. Between January and November 2010 the aggregate proceeds from export of oil and oil products hit USD 173.6 bln.

*Table 37*

**Export Proceeds from Oil and Oil Products in 2000–2010, as USD Bln.**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 (11 mec.)
Export gains from oil and main oil products	34.9	33.4	38.7	51.1	74.6	112.4	140.0	164.9	228.9	141.2	173.6

*Source:* calculated on the basis of the Federal State Statistics Service's data.

Table 38

**Proceeds from Export of Oil and Oil Products in 2008–2010, as USD Bln.**

	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2009 Q1	2009 Q2	2009 Q3	2009 Q4	2010 Q1	2010 Q2	2010 Q3
Export gains from oil and main oil products	53.2	64.4	68.9	42.4	25.6	30.6	39.2	45.8	45.2	47.9	46.2

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

Affected by increasing world prices for oil and gas, the proportion of fuel-and-energy commodities in Russian's exports in 2008 hit 68.6%, including crude – 34.4% (Table 39). In 2009, the share of these commodities in the nation's export dropped slightly, but remained high nonetheless. In 2010, the proportion of fuel-and-energy commodities in Russia's exports accounted for 67.5%, including crude – 34.0%.

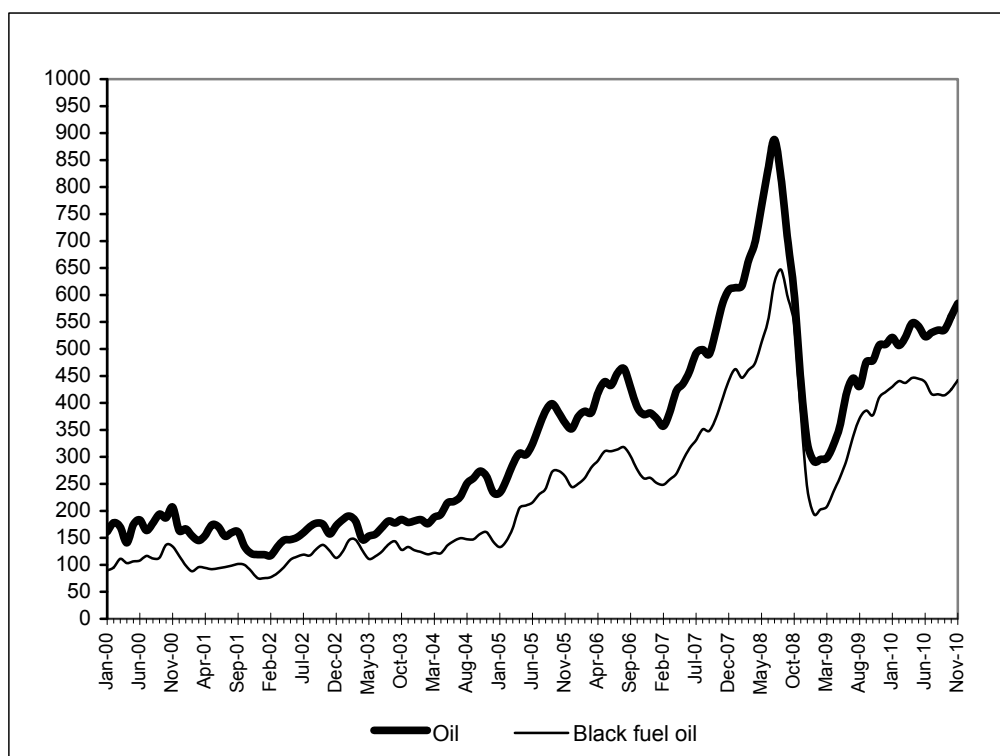
Table 39

**Value and Specific Weight of Export of Fuel-and-Energy Commodities in 2005–2010**

	2005		2008		2009		2010	
	USD bln.	%*	USD bln.	%*	USD bln.	%*	USD bln.	%*
Fuel-and-energy commodities, total	154.7	64.1	321.1	68.6	201.1	66.7	267.7	67.5
Including:								
oil	83.8	34.7	161.2	34.4	100.6	33.3	134.6	34.0
Natural gas	31.4	13.0	69.1	14.8	42.0	13.9	47.6	12.0

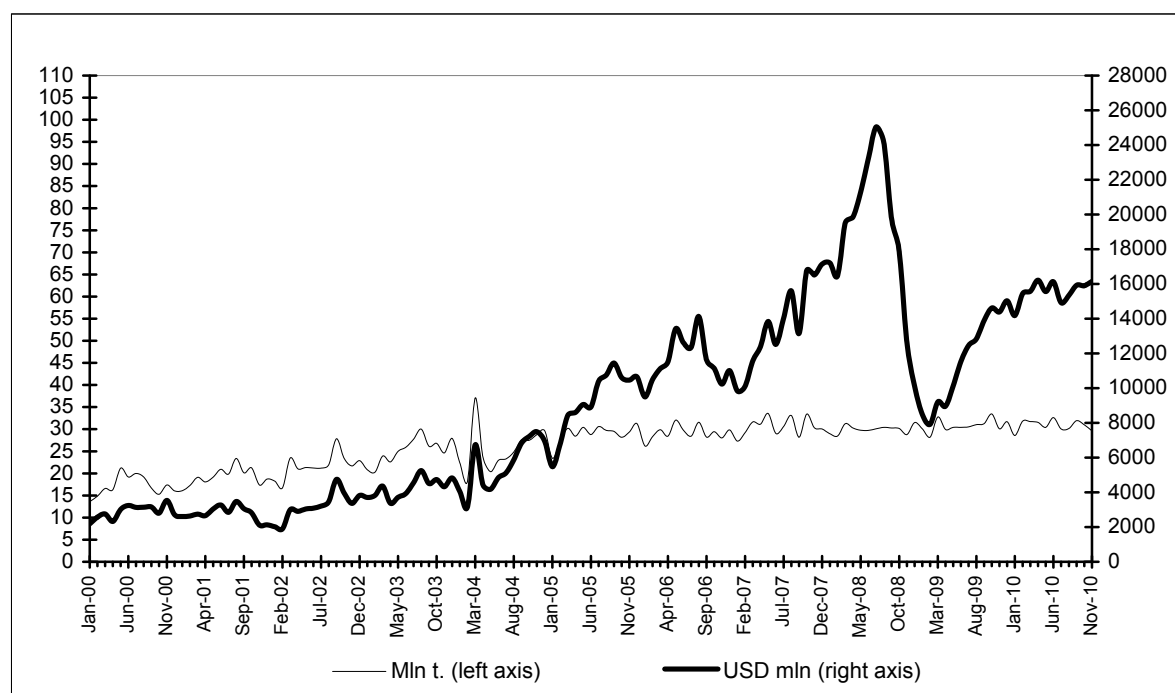
\* As % of the total volume of Russian exports.

Source: the Federal State Statistics Service.



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

Fig. 32. Average Export Prices of Oil and Black Fuel Oil in 2000–2010, USD/ton



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

*Fig. 33.* Export of Oil and Oil Products in Natural and Value Equivalent in 2000–2010, Mln. T/, USD Mln.

#### 4.4.4. Price Dynamic for Energy Commodities on the Domestic Market

Propelled by rising oil prices in 2008, the domestic prices of oil and oil products in Russia likewise were on the upsurge. In the summer of 2008, the prices for oil, petrol, diesel fuel and black oil fuel hit their absolute peaks over the post-reform period. In July 2008, the average domestic price of oil (producer price) in USD equivalent hit USD 410.2/ton, while the one of petrol – USD 810.3/ton. Between September and December 2008, and in the early 2009, the plummeting world oil prices and depreciating Ruble sent domestic prices of oil and oil products in USD equivalent nosedive. In 2009, the domestic price of oil and oil products in USD equivalent notably bounced upwards as a result of rising world oil prices and eventually over-ran the 2008 figures. (*Table 40, Fig. 34, 35*). In 2010, the world prices of oil and light oil products continued climbing up and fueling a further increase in the domestic prices of oil and light oil products in USD equivalent.

*Table 40*

**Domestic Prices of Oil, Oil Products and Natural Gas in USD equivalent in 2000–2010 (Average Producer Prices, as USD/ton)**

	2000 December	2005 December	2006 December	2007 December	2008 July	2008 December
Oil	54.9	167.2	168.4	288.2	410.2	114.9
Petrol	199.3	318.2	416.5	581.2	810.3	305.1
Diesel fuel	185.0	417.0	426.1	692.5	902.8	346.5
Black oil fuel	79.7	142.7	148.8	276.5	392.8	125.0
Gas, USD/ c.m.	3.1	11.5	14.4	17.6	23.8	18.1

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Table 40 (continued)

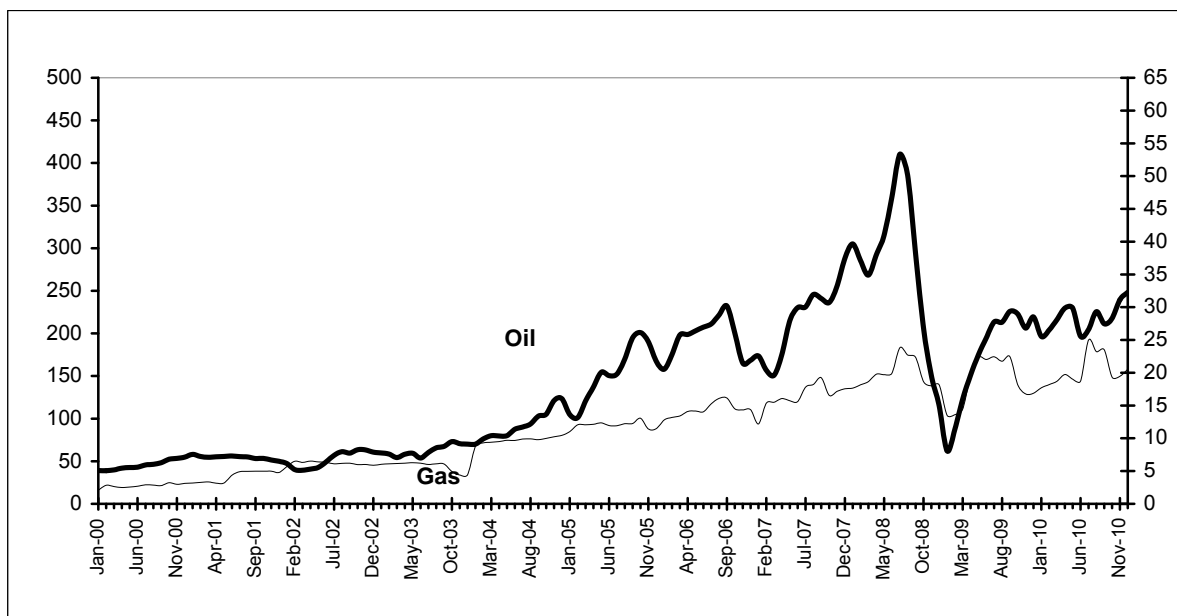
	2009 January	2009 March	2009 June	2009 September	2009 December
Oil	62.2	122.9	194.7	225.9	219.3
Petrol	244.3	318.8	481.5	593.2	457.4
Diesel fuel	306.2	343.1	382.1	388.2	394.8
Black oil fuel	107.2	145.9	210.8	265.8	250.8
Gas, USD/ c.m.	13.5	14.5	22.0	22.4	16.9

Table 40 (continued)

	2010 January	2010 March	2010 June	2010 September	2010 December
Oil	196.5	216.3	196.7	211.2	248.2
Petrol	483.0	507.3	529.2	544.0	547.9
Diesel fuel	429.5	431.3	406.7	423.8	536.1
Black oil fuel	195.3	229.0	236.3	246.2	246.3
Gas, USD/ c.m.	17.7	18.7	18.7	23.5	20.5

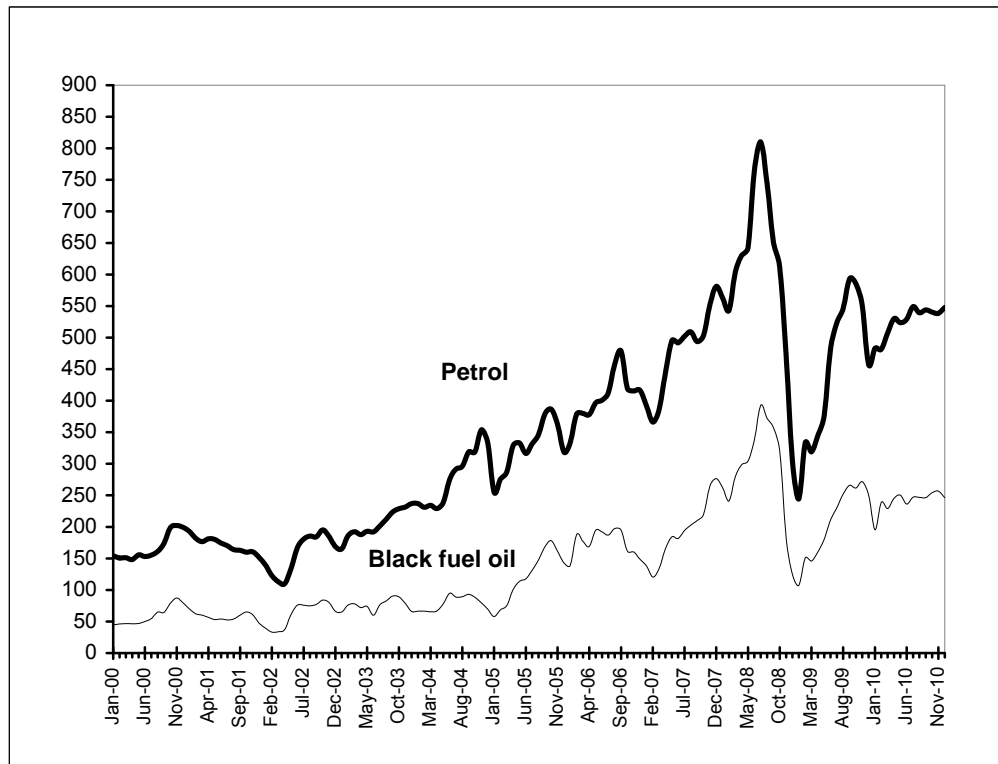
Source: calculated on the basis of the Federal State Statistics Service's data.

Meanwhile, domestic oil prices in Russia still are substantially lower than the world ones. Behind the gap are such objective conditions as the existence of an export customs duty and additional transportation costs. Against such a backdrop government regulators kept keeping a watchful eye on domestic gas prices. It is envisaged to transit, within coming years, to a stage-by-stage increase of domestic gas prices to a level securing the same profitability rate from its sales in Russia as the one ensured by overseas sales. If the move is successful, the gap between domestic and world prices should narrow, with the domestic prices of gas still being lower than the world ones (given the export duty and transportation costs), nonetheless.



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

Fig. 34. Average Producer Prices of Oil and Gas in USD Equivalent in 2000–2010, USD/Ton, USD/Thous.c.m.



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

*Fig. 35. Average Producer Prices of Petrol and Black Fuel Oil in USD Equivalent in 2000–2010, USD/Ton*

#### 4.4.5. Tax Regulation of the Oil-and Gas Sector

Since 2009 amendments were made to the Tax Code of RF. They are aimed at alleviation of the tax burden on the oil-and-gas sector, encouragement of a more intense development of deposits in operation and development of new oil fields in underdeveloped regions and at the continental shelf. Specifically, in the formula calculating the Rp ratio that reflects the world oil prices and is applied to the basic mineral tax rate on produced oil, the exempted price minimum was increased from USD 9/bbl. to 15/bbl. (*Table 41*), which resulted in a substantial decrease of the effective mineral tax rate on extracted oil. As well, the requirement to use the direct method of accounting the volume of oil output at a specific mining allotment was abolished to ensure the decreased ratio is applied to the mineral tax rate (Kb) employed at oil fields with a high reserves depletion rate. That allowed the benefit in question to cover all the worked-out deposits, which stimulates extension of their operational deadlines and gives boost to an additional oil production.

To give a fillip to development of new oil-and-gas provinces for new oil deposits located in Eastern Siberia, in Nenetsky Autonomous Okrug, in Yamal peninsula (Yamalo-Nenetsky Autonomous Okrug), at the continental shelf of the Russian Federation north of the Arctic Circle, as well as in the Sea of Azov and Caspian Sea, the Government has granted tax holidays in regard to the mineral tax. Specifically, corporations developing new oil deposits of the Eastern-Siberian oil-and-gas province within the borders of the Republic of Sakha (Yakutiya),

Irkutsk oblast and Krasnoyarsk krai now can enjoy zero rate of the mineral tax until they hit the accumulated volume of oil production of 25 mln. tn. at a given mining allotment, provided they meet the 10-year reserves development deadline, or for 10 years for an E&P license and 15 years – for a complex E&P and production license effective since the date of its public registration. (Table 42).

Table 41

**The Mineral Tax Rate on Oil Extraction in 2005–2010**

	2005	2006	2007	2008	2009	2010
The basic mineral tax rate levied on oil extraction, Rb/ton	419	419	419	419	419	419
The ration characterizing the world oil prices dynamic (Rp)		(P-9) x R/261			(P-15) x R/261	
Reserves depletion ratio of a mining allotment (Kb)		-		3,8 – 3,5 x N/V		

**Note:** P – the price level for Urals in USD/bbl equivalent averaged over the tax period; R - set by the CBR USD-to-Rb. exchange rate value averaged over the tax period; N – cumulative oil production at a mining allotment; V –initial recoverable reserves of categories A, B, C1 и C2 at a mining allotment.

**Source:** the Tax Code of RF, Federal Act of 22.07.2008 № 158-FZ, Federal Act of of 27.07.2006 № 151-FZ, Federal Act of 07.05.2004 № 33-FZ.

To additionally encourage development of oil deposits in Eastern-Siberian oil-and-gas province since 1 December 2009 the RF Government set zero oil export duty rate effective through 1 July 2010. The Government subsequently transited to apply lowered export duty rates to the East Siberian oil and since December 2010 extended the effect of the leverage to cover deposits located in Caspian Sea.

Table 42

**Regions of Application and tax Holidays Parameters of the Mineral Tax on Oil Extraction**

Region	Accumulated volume of oil production at a mining allotment, mln. tn.	E&P license validity period, years	E&P license validity period, years	Date as of which the benefit became effective
1. Republic of Sakha (Yakutia), Irkutsk oblast, Krasnoyarsk krai	25	10	15	01.01.2007
2. Continental shelf north of the Arctic Circle	35	10	15	01.01.2009
3. Nenetsky AO, Yamal peninsula	15	7	12	01.01.2009
4. Sea of Azov Caspian Sea	10	7	12	01.01.2009

**Source:** the Tax Code of RF.

In 2010, the RF Government produced a string of new proposals (amendments to Part 2 of the Tax Code of RF) on modifications in taxation of the oil-and-gas sector consequently adopted by the Federal Assembly of RF and promulgated since 2011. The amendments provide for some increase in the mineral tax rate in regard to oil and a substantial increase of the mineral tax rate on natural gas. The basic mineral tax rate on oil will be subject to indexation with account of the projected inflation rate in 2012–2013, that is, they will be raised up to Rb.446 /ton in 2012 and further up to Rb. 470/ ton in 2013. The mineral tax rate on gas will be raised way more substantially. It has remained unchanged since 2006, while since then wholesale gas prices have risen 2.12 time. As a consequence, the mineral tax rate on gas slid considerably both in real and nominal terms (as percentage of its price).



At this juncture we believe a logical move would be to have the mineral tax rate on gas production indexed according with the price rise for gas in the domestic market. The Government, however, tried a more conservative approach: since 1 January 2011 the rate of the tax in question is to be indexed 1.61 times, which de facto quadrates with the inflation accumulated over 2007–2010. The gas mineral tax rate is to be further increased in 2012–2013 to catch up with the projected inflation rate. As a result, since 1 January 2013 the mineral tax rate on gas production will make up Rb. 265 /Thous. c.m. (*Table. 43*).

*Table 43*

**Mineral Tax Rates on Oil and Natural Gas Production in 2010–2013**

	2010	2011	2012	2013
Mineral tax rate on oil, Rb/ton	419	419	446	470
Mineral tax rate on gas, Rb/Thos. c.m.	147	237	251	265

*Source:* the Tax Code of RF

In order to encourage development of small oil deposits, in 2010 the Government prepared amendments to Art. 342 Part Two of the Tax Code of RF on introducing to the mineral tax rate of oil production a special decreasing coefficient that characterizes the amount of field reserves at a given mining allotment, *aka*  $C_r$ . It is suggested to calculate this coefficient by a special formula and apply to mining allotments with initial recoverable oil resources up to 5 mln. tn. and a field depletion rate up to 0.05.

The procedure of calculation of the mineral tax on oil extraction currently does not provide for any correlation between taxation differentiation with the volume of oil reserves at a given mining allotment. As a result, development of small oil deposits with the volume of recoverable resources under 5 mln. tn., as a rule, proves inappropriate from the economic perspective, as specific capital and operational costs remain high. That said, the government list of mining resources comprises some 1,000 oil deposits, which can be classified into the group of small ones, with recoverable resources under 5 mln. tn. and the depletion rate under 5%, whose aggregate reserves account of 1 bln. tn. of oil.

Once applied,  $C_r$  should create conditions for development of new small oil fields, which would not be developed otherwise. That should allow extraction of additional oil reserves concentrated therein. The RF Government's calculations show that the use of  $C_r$  should result in a 10.2 mln. tn. of extra oil production at such fields in the first year of application of the benefit and 214 mln. tn over the first 10 years.

In the frame of implementation of the policy on encouragement of new regions of oil production, the RF Government coined proposals on employing already effective in a number of regions tax break regime in regard to the mineral tax to new oil fields located in Yamalo-Nenetsky Autonomous Okrug, north of the 65° of northern longitude. It is proposed to apply to mining allotments in that region (except for those located in Yamal peninsula) zero rate of the mineral tax until they hit the accumulated volume of oil production of 25 mln. tn. at a given mining allotment, provided they meet the 10-year reserves development deadline, or for 10 years for an E&P license and 15 years – for a complex E&P and production license effective since the date of its public registration.

If passed, the bill should establish much-needed economic conditions of development of the local deposits, which otherwise would appear unprofitable under the general taxation regime, because of the need to secure huge volumes of capital investments in infrastructure, as dictated by the local deposits' geographic and geological peculiarities.

A differentiated alleviation of the tax burden for certain regions whose specificity lies in increased development costs, appears justifiable in the frame of the present tax law, as it allows a necessary rate of return on investment in development of new deposits. That said, while being a simple mechanism from the perspective of tax administration, the tax break regime seems fairly imperfect. The problem is, it implies a uniform averaged approach to all deposits located in a given region (continental shelf), with no account whatsoever of significant differences in costs of development of each of them.

Plus, as far as relatively small-sized deposits are concerned, during the period of tax holidays, the oil production at them, under a normal pace of development, will be substantially below the set margin, so tax holidays generate incentives to expedite their development to exempt from taxation a maximum volume of produced oil. Hence, a possible drop in public revenues and a fall in the ultimate recovery efficiency rate.

Taxation of additional income, or super profit, seems a more perfect form of taxation. Whereas all geological and geographical characteristics of a given deposit are ultimately reflected in the income from its development, such an approach secures an automatic differentiation of the tax burden, depending on concrete conditions of oil extraction. It also enables one to factor into both the producer's gross income and costs of oil extraction at a concrete deposit.

In the case of highly efficient projects, taxing super profits ensures a progressive withdrawal of the resource rent in favor of the government coupled with improvement of conditions of implementation of low efficient projects. If employed, such a regime allows creation of necessary conditions for development of new deposits that require greater capital, operational and transportation costs.