

The Russian Federation in the World Oil Market

Rezime: Rusija je rangirana na trećem mestu u svetu po proizvodnji nafte. Rusija proizvodi gotovo 1/10 svetske proizvodnje nafte i drugi je najveći izvoznik nafte, iza Saudijske Arabije. Međutim, posledice lošeg svojetskog upravljanja i privredni kolaps nakon Perestrojke početkom 1990-ih ograničili su razvoj ove privredne grane. Ekonomski slom 1998. godine i pad cena nafte doveli su do sniženja troškova i povećanja produktivnosti rada. To je, uz visoku cenu nafte od 2000. godine, dovelo do velikih novčanih priliva, kao i do revitalizacije ruske ekonomije posle monetarnog udara. Time su se otvorili novi horizonti za naftne kompanije, kao što je porast investicija na globalnoj areni. Istovremeno, zapadne naftne kompanije usredsređuju se na Rusiju da bi došle do njenih rezervi nafte iako je napredak ograničen zbog nedovoljne zaštite investitora i odsustva fiskalne fleksibilnosti.

Ključne reči: Ruska Federacija, nafta, izvoz, investicije

Summary: Russia is rated number 3 in the world for oil production . Russia produces almost 1/10 of world oil production and is the second biggest oil exporter after Saudi Arabia . But the legacy of Soviet mismanagement and the economic collapse after perestroika in the early 90s has constrained the development of the industry . The 1998 economic crash and the drop in oil prices led to cost cuts and improvements in employee productivity . This, combined with high oil prices from 2000, generated large cash flows and revitalization of the monetary strike's consequences. This opens up new horizons for the oil companies, such as increased investments in the global arena . Simultaneously Western oil companies are targeting Russia to add to their oil reserves although progress is limited due to insufficient protection of investors and lack of fiscal flexibility .

Keywords: the Russian Federation, oil, export, investments

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1. POSITION OF THE RUSSIAN FEDERATION IN GLOBAL OIL MARKET

The world's oil reserves are mostly concentrated in the Middle East. Five Middle Eastern countries have almost two-thirds of global reserves: Saudi Arabia (25 percent), Iraq (11 percent), the United Arab Emirates (9 percent), Kuwait (9 percent), and Iran (9 percent). The largest oil reserves outside the Middle East are in Venezuela and Russia. Venezuela has approximately 7 percent; Russia, almost 5 percent. [4]

Rank	Country	Proved reserves (billion barrels)
1.	Saudi Arabia	264.3
2.	Canada	178.8
3.	Iran	132.5
4.	Iraq	115.0
5.	Kuwait	101.5
6.	United Arab Emirates	97.8
7.	Venezuela	79.7
8.	Russia	60.0
9.	Libya	39.1
10.	Nigeria	35.9
11.	United States	21.4
12.	China	18.3
13.	Qatar	15.2
14.	Mexico	12.9
15.	Algeria	11.4
16.	Brazil	11.2
17.	Kazakhstan	9.0
18.	Norway	7.7
19.	Azerbaijan	7.0
20.	India	5.8

Source: www.infoplease.com/ipa/A0872964.html

The energy complex is the backbone of the Russian economy. It accounts for about 30 percent of industrial output, 32 percent of consolidated budget revenues, 54 percent of federal budget revenues, 54 percent of exports, and about 45 percent of foreign exchange earnings.[6]

More than 100 companies produce oil in Russia, but the largest part is actually in the hands of ten vertically integrated companies, whose output is approximately 350 million tons-90 percent of oil production in Russia. The two largest companies-LUKoil and YUKOS-produce about 40 percent of the oil.

Table 1. - Russian Oil Exporters (2000, million tons)

	Sea transport	Druzhba pipeline	Rail transport	Total
Total export including:	75.1	57.4	5.4	137.9
LUKoil	16.2	9.3	0.4	25.9
YUKOS	10.8	13.6	1.2	25.6
Surgutneftegaz	2.1	15.3	-	17.5
TNK	8.8	4.0	1.9	14.8
Sibneft	7.4	2.9	0.2	10.5
Tatneft	5.0	3.7	-	8.7
Rosneft	6.1	0.0	-	6.1
Sidanko	3.8	1.4	0.5	5.8
Slavneft	4.2	1.2	-	5.5
Bashneft	2.7	1.4	-	4.1

Source: RF Energy Ministry (see *Russian Petroleum Investor*, vol. 12, no. 2)

There are more than 150 small oil companies in Russia, producing about 6 percent of oil, and they need investments in domestic energy as one of the most successful sectors in attracting investments. In the first years of reforms, the main creditors of the Russian oil and gas industry were the International Bank for Reconstruction and Development, which is part of the World Bank Group, the European Bank for Reconstruction and Development, the Eximbank of the United States, and also the American Trade more than \$ 2 billion has been invested in oil production, and only \$ 116 million in oil refining.[1]

In 2005. of the direct investments in Russian industry, 34 percent went to oil production (\$ 1.36 billion). Oil refining received insignificant investment, while this sector needs serious modernization (about \$ 10-11 billion). With the introduction of new international environmental standards in 2004. the problem of modernizing oil refineries will become especially pressing, otherwise the Russian oil industry's products will not be allowed into Western Europe .[3]

Table 2. - Shares of Foreign Direct Investment by Sector of the Economy

	2004 % total	2005 % total
Agriculture, hunting, forestry	0.9	0.9
<i>Fishing, fish-breeding</i>	0.0	0.0
<i>Extraction of mineral resources</i>	43.3	30.7
<i>energy resource extraction</i>	42.3	29.9
<i>Manufacturing</i>	30.9	46.1
<i>Food industry, incl beverages, tobacco production</i>	3.6	4.2
<i>Textile and sewing</i>	0.4	0.1
<i>Production of leather and leather products</i>	0.1	0.1
<i>Wood processing</i>	3.5	2.5
<i>Paper, pulp and polygraph</i>	0.5	0.7
<i>Coke and oil products</i>	0.1	27.2
<i>Chemical products</i>	2.5	1.8
<i>Rubber and plastic products</i>	0.8	1.2
<i>Other non-metal mineral products</i>	4.8	3.0
<i>Metallurgy and metal products</i>	12.1	1.3
<i>Machines and equipment</i>	0.6	-
<i>Electric, electronic and optical equipment</i>	0.3	0.5
<i>Vehicle and transportation equipment production</i>	1.2	1.7
Electricity, gas and water production and distribution	0.001	1.1
Construction	0.9	0.9
Retail and wholesale trade, repair and maintenance of vehicles, white goods and personal effects	10.2	5.9
Hotels and restaurants	0.2	0.2
Transport and communication	2.1	1.9
<i>o/w communication</i>	0.4	0.4
Finance	3.8	4.5
Immovable property operations, leasing and services provision	6.9	7.1
Provision of other public utilities, social and personal services	0.7	0.6

Source: Rosstat, 2006

Some foreign oil companies have also begun operations in the Russian market. In 2000, the total output of foreign companies reached 6-7 percent of Russian production. Foreign direct investments in fuel and energy sector of the Russian economy amounted to about 30 percent of the total. The main foreign players in the Russian oil business : Agip, British Petroleum , British Gas, ChevronTexaco, Conoco, ExxonMobil, Neste Oy, Norsk Hydro, McDermott, Mitsubischi, Mitsui, Royal Dutch/Shell, Statoil, and Total Fina Elf.

Table 3. - Crude Oil Exports from Russia (1995-2010, forecast)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2010
Exports (million tones)	132.8	102.0	108.4	140.0	130.8	144.5	162.1	195.0	202.0	210.0	242.0	296.0
Growth of exports (%)	-	-23	6	29	-7	10	12	20	4	8	11	-
Exports/production (%)	43	34	35	46	43	45	47	52	51	52	54	58

Sources: RF Energy Ministry (see *Russian Petroleum Investor*, 2003, vol. 12, no. 2); author's calculations

2. EXPORT OF ENERGY SOURCES AND ITS GEOGRAPHICAL DIRECTIONS

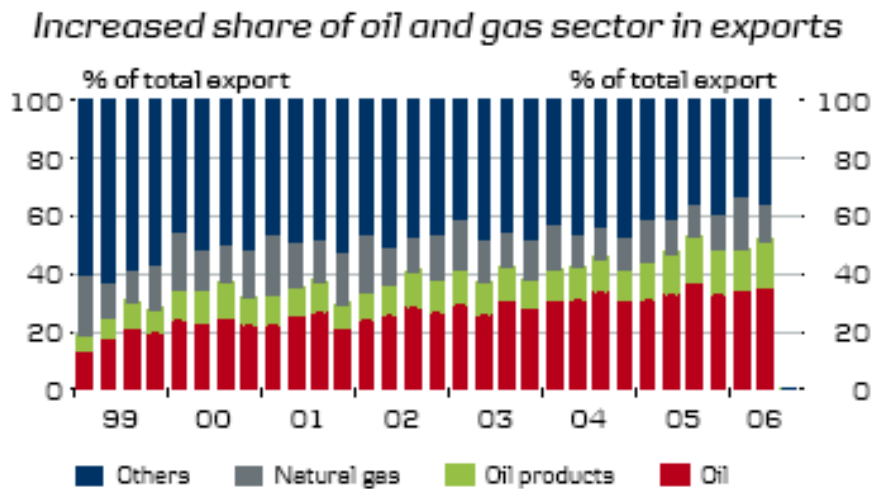
The Russian oil pipeline transportation also needs substantial investments. The state crude oil transport monopoly Transneft does not have sufficient financial resources to do this. The official level of oil losses during transportation (3-7 percent) seems severely understated, because international standards permit losses during transportation for export of not more than 0,1 percent of the oil produced. It would therefore be best to liquidate the state monopoly and permit private companies to build and use pipelines. Otherwise, the stated goal of exporting up to 300 million tons of oil in 2010 will not be achieved.

While major Russian oil companies have already begun investing in pipeline modernization, small companies with insufficient financial resources have a high probability of going bankrupt from such losses.

The bulk of Russian oil exports go outside the former Soviet Union, which rose from 53 percent of total exports in 1992 to 86 percent in 2005. Most Russian oil is produced in the Ural Federal District, primarily in Tiumen Oblast (two-thirds of total production). The Volga Federal District produces almost one-quarter, mostly in Tatarstan, and also in Bashkortostan, Orenburg, Perm, and Samara. The North-western Federal District produces 4 percent of the country's oil, with its regional oil center in the Komi Republic.

Crude oil and petroleum products account for some 40 percent of Russia's total exports, and oil is a significant source of budget revenues. Although the Russian Federation is not a member of the Organization of the Petroleum Exporting Countries (OPEC), the country is one of the leading operators in the international oil business, being the largest net exporter after Saudi Arabia.

In 2000, Russia exported approximately 145 million tons of crude oil and 50 million tons of petroleum products. Oil and petroleum product exports have begun to grow since 2000 and have actually doubled since 1996. In 2005, they reached 200 million tons. According to RF Energy Ministry forecasts, crude oil exports will increase to 300 million tons in 2010.



Source: www.fxstreet.com/fundamental/analysis-reports/research-euroland/2006-11-30.html

Russia is the second most important external source of oil for the EU and more than 15 percent of the EU's oil imports now come from Russia, and after it is enlarged the percentage will increase. The main importers are Great Britain, France, Italy, Germany, and Spain. [2]

The U.S. oil balance is even less sustainable than the EU's. The U.S. economy is crucially dependent on imported energy resources, but the oil reserves of the country's neighbors are relatively large: Mexico has almost the same quantity of reserves as the United States. North and South America together have approximately 15 percent of global oil reserves, which is approximately three times as much as Russia.

Russia's share of American oil imports is less than 1 percent, but it may grow significantly in the medium term. Oil export to the United States are constrained by the fact that it costs considerably more to transport oil from Russia than it

does from the Middle East. Winning 10 percent of the American oil market would also mean selling an additional 50 million tons of oil a year, which is impossible without increasing the capacities of oil terminals.

China now consumes only 7 percent of the world's oil, slightly less than Japan. However, China's consumption is growing as the country industrializes. It is forecast that by 2020 China will become the second-largest consumer of oil, after the United States. In order to ensure a steady supply. Chinese companies have made energy-related investments in more than twenty countries, including Russia. The most of current imports comes from the Middle East, but China is trying to diversify its oil imports and is showing interest in Russian oil reserves.[7]

3. DEVELOPMENT OF TRANSPORTATION SYSTEM IN ENERGY RESOURCES EXPORTS

In 2005, 55 percent of Russian oil was exported by sea, 40 percent through the Druzhba pipeline and approximately 5 percent by rail. The main export route to the West Russian oil is the Druzhba pipeline, with nominal capacity of 60 million tons. The Druzhba-Adria pipeline have a capacity of 5 million tons, which will be increased to 10-15 million tons by 2013.

The Baltic Pipeline System (BPS) includes a 450-kilometar pipeline from Khariaga to Usa (Komi Republic), the Usa-Ukhta, Ukhta-Yaroslavl, and Yaroslavl-Kirischi pipelines, and the Kirschi-Primorsk pipeline. The completion of the second phase by the end of 2003 of BPS construction increased its capacity from 12 million to 18 million tons. The capacity is also expected to 42 million tons by 2005 and even to 50-70 million tons by the end of this decade.

The Sukhodol'naia-Rodionovskaia pipeline was finished in 2001. This 250-kilometer trunk line enables Russian oil companies to transport oil to the Novorissiisk oil export terminal without using the branch that runs through Ukraine, so they can avoid high transit fees and illegal tapping of oil from the pipeline. The pipeline's capacity is approximately 16-25 million tons.

Besides these western routes, Russia is trying to develop a pipeline network in the east. YUKOS is building a pipeline 1,700 kilometers long, with capacity of 25-30 million tons, from Angarsk to Daqing in Manchuria (Heilongjaing Provice, China), at a construction cost of some \$ 2.2 billion. YUKOS in 2003 was supplying China with 1.5 million tons of crude oil by rail, and increased deliveries to 18 million tons in 2005 and more than 26 million tons by 2010 was anticipated.

ExxonMobil, the operator of the Sakhalin-1 project, supports construction of a 250-kilometer underwater pipeline through the Tatar Strait to the port of De Kastri on the Russian mainland, where the capacity of the tanker terminal could

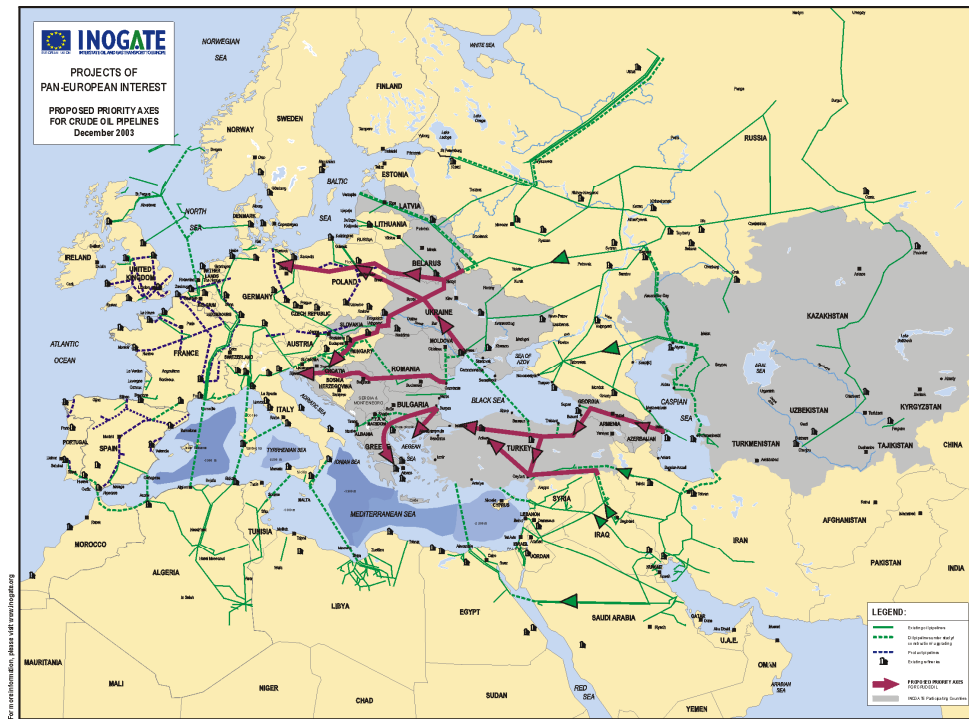
be expanded, so that oil exports to Asian countries can be increased. Although construction expenditures would be relatively small, DeKastri is not an ice-free port. The capacity of both the terminal and the pipeline would reach 12-15 million tons.

The Sakhalin-2 consortium, which is led by Royal Dutch/Shell, plans to export oil to Japan, South Korea, and Taiwan. This will require building an 800-kilometer pipeline down the whole length of Sakhalin to the ice-free port of Prigorodnoe. This plan is expensive, but it allows year-round oil exports.

The Black Sea port of Novorossiisk is Russia's largest oil export terminal. In 2002, the port handled 45 million tons of crude oil, and its capacity was scheduled to be increased. Although Primorsk is Russia's largest Baltic oil terminal. In 2002, Primorsk served 135 tankers and shipped approximately 12 million tons of crude oil. Its capacity was increased to 18 million tons in 2003 following the second phase of pipeline construction.

Northern Russia has four oil ports: Varandei, Arkhangelsk, Vitino, and Murmansk. The Varandei terminal, with initial capacity of 1.5 million tons, was built by LUKoil and the company hopes to raise its capacity to 10 million tons. It will load its own tankers there, with deadweight of 16,000-20,000 tons, and then send them to Murmansk, where the crude oil will be reloaded onto heavy vessels and export the oil to northwest Europe and the United States. In addition, Rosneft plans to invest about \$ 15 million to upgrade the terminal in Arkhangelsk, doubling its capacity from 2,5 to 4,5 million tons per year. But this port frequently experiences problems in the winter, since it lacks icebreakers to keep the arctic port free of ice. The port of Vitino is located on the northwest coast of Kandalaksha Bay on the White Sea. The port's capacity is 4 million tons of condensate and fuel oil per year, not counting light petroleum products. Crude oil comes to Vitino by rail, where it is loaded onto small tankers with deadweight up to 70,000 tons for shipment to Murmansk, where it is reloaded onto large tankers and then exported to Europe or the United States. In 2002, the amount of oil transported through Vitino increased from 0,1 to 2,8 million tons.[5]

Regarding the Murmansk oil terminal, a consortium of four Russian oil companies – LUKoil, YUKOS, TNK, and Sibneft-plans to build a pipeline from Western Siberia to Murmansk. The investment required to finance this project is \$ 3,4-4,5 billion, depending on whether it goes under or around the White Sea. LUKoil and YUKOS pledged to cover about two-thirds of the financing. The Murmansk port would have potential capacity of 60-120 million tons, and it is free of ice year-round, in contrast to ports in the eastern part of the Baltic Sea.



Source: www.inogate.org/en/images/maps/oil_map_big.gif

4. CONCLUSION

The Russian Federation is one of the most important participants in global energy sources' market with annual exports of 200 million tons of crude oil mostly directed to developed Western markets. EU is the final destination for over a half of Russian oil and gas exports and in EU imports, 25% of gas and 17-18% of oil is of Russian origin. EU members are very dependent on Russian oil exports and therefore bilateral cooperation in energetic is very

important to both parties for the purpose of collaboration in transport infrastructure, energy efficiency and investments.

The Russian oil and gas sector needs foreign investments and the capitalization of Russian oil and gas companies is still incomparably less than that of Western corporations. The leading investor in the Russian fuel industry is still Japan; it accounts for 34 percent of direct investments in the industry and the main other investors are Cyprus 26 percent and Switzerland 24 percent.

Oil pipeline transportation also needs substantial investments. The service life of 73 percent of all Russian trunk pipelines is more than twenty years, and about 41 percent of the pipelines have been in operation for more than thirty years.

Large-scale reconstruction and construction of new oil pipelines will require investments of billions of dollars and this can only be achieved through participation of foreign investors and big Russian oil transnational companies (TNCs). In this way, steady year-wide oil exports, as well as supply of trade partners in primary geographic directions, would be increased and significantly relieved contributing to growth of overall Russian economy and further development of bilateral relations.

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