Euroasia, Energy cooperation or conflict? PART I.: Potentials of Russia and Russian Companies in Oil and Gas Businesses

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REVIEW

Steep rise of oil prices in international market, which doubled in June 2008 in respect to the levels in early 2007, instigated interest for analyzing the reasons of such oil price movements. Many are not satisfied with an explanation about disbalance of supply and demand reflected in skyrocketing prices on mercantile exchanges as demand grows faster than supply. The latter fact supports arguments about imminent peak oil. At the same time, Europe's high dependence on oil and gas imports, controversies between the EU and Russia on some principles of energy cooperation, starting from the Energy Charter Treaty which has never been ratified in duma, lead to a lack of trust instead of energy cooperation. These issues motivated the author to present, in a 3-part study, the potentials of Russia and the Caspian region for the supply of oil and gas, primarily from the perspective of european infrastructure requirements necessary for the transit of oil and gas to Europe.

As for Russian potentials, some authors, being from Russia themselves, warn about stagnating production, particularly oil, but also natural gas. Consequently, these warnings should be taken into account.

Key words: energy cooperation, oil and gas production, oil and gas reserves

1. INTRODUCTION

Croatia meets half of its energy demand from imports. In case of oil, three quarters of total needs are met from import and in case of natural gas, one third. Similarly to a remark about a glass being half full or half empty, this picture of energy dependence can inspire both optimists and pessimists. A little comfort is that other countries in Europe are in similar situation.

In order to address energy supply challenge, Europe, or the states that formed the European Communities in the 1970s, devised a wise and efficient strategy the elements of which can be recognized even today in current strategies: energy mix, competitive market, concern for the environment and security of supply. The latest element assumes diversification of energy sources, or maintaining the share of individual energy source below the monopoly level.

This effort to avoid monopoly position of one energy source is a kind of stumbling block in Euro - Asian relations or Euro – Russian expectations. Reinvigorated Russia, whose economic power grew thanks to export of oil and gas and high prices, tends to increase its share in europe's energy supply. However, due to geopolitical reasons EU is reluctant to accept such solution, and moreover, it is a question whether Russia, but also entire Asia, have capacity to perform the role they aspire to have in Europe's and international energy supply.

2. RUSSIA'S OIL AND GAS SUPPLY POTENTIALS

There is no doubt that Russia represents irreplaceable source of oil and gas supply for Europe. Particularly gas. Even concerning the price, Russian gas is competitive to any alternative energy source.

On the other hand, Europe is a large, predictable buyer for Russia with strong purchasing power.

Short comparison:

EU:	459 million population	GDP €16.8 billion
Russia:	142 million population	GDP €1.3 billion

Oil and gas business accounts for half of total income filling the state budget. Oil and gas export accounts for 65% of total Russian export.

While Putin's Russia tends to increase its share in energy supply of Europe, Europe makes efforts to retain this share below monopoly level. The Russians claim they do not understand this fear, moreover since European Union makes large part of Europe, and in relation to the EU they are in a monopson position. In response to such a situation, Russia threats to construct new oil and gas supply routes toward other markets like China and India. But they have not ended on threats only.

Europe and the USA see the Caspian region as a welcome alternative to the Russian sources. Therefore it is worthwhile to analyze these two significant sources separately. Mr. Putin complains about „energy egoism" of the West. In energy context, the French talk about „economic patriotism", and behind everything there is awakened "sources" nationalism.

Russia decided to develop the huge Stockman field on its own. This offshore field lies 550 km off the Russian coast in the Barents Sea with harsh climate with storms and ice. Similar decision was made for the Yamal project. It is said that in local language Yamal means „end of the world".

It is obvious that Russia is not capital hungry any more, as it was the case about twenty years ago when the West

Table 1. Data on the share of Russian gas in the supply of some European countries

Country	Data source 1 (%)	Data source 2 (%)	Share of gas (%) in primary energy consumption (2004)
Poland	61	63	< 3
Finland	**11***	**100***	-
Slovakia	100	100	29
Czech R.	73	75	17
Germany	33	40	23
Austria	63	78	22
France	27	32	15
Hungary	72	77	45
Italy	27	33	36
Croatia	40	40	25
B&H	100	100	-
Serbia	-	-	-
Macedonia	95	100	-
Greece	65	100	7
Bulgaria	94	-	-
Turkey	60	-	-

Source: 1. Maroje Mihovilović: Gazprom - A New Master of the World, Croatian magazine „Nacional", 16.01.2007., pages 36 - 41. (column 1)
2. Information, INA, no 14-9-06. of 20.09.2006. (column 2)
* neither of the data is fully reliable

developed energy-for-capital exchange deals. Russia's oil industry has fully recovered thanks to high oil and gas prices. From prey it turned predator. When it needs technology and know-how, it can buy it now.

Europe's dependence on oil imports was addressed already in the 1970s, through diversification of supply and keeping the level of individual source below the monopoly level. As crude oil market is traditionally an open market with less transport constraints, it was easier to ensure diversified supply of crude oil.

Dependence on natural gas imports varies from country to country. Since the 1970s the Western European countries tended to have a balanced import portfolio in which the share Russian gas was maintained at the level of 25% of total demand, or 50% of imported volumes, while SEE countries have much bigger share of imported gas (see Table 1) and their dependence on Russian gas is significantly higher.

The data on Russian gas imports by some European countries (Table 1) published in 2007 differ from the 2006 figures (Information, INA, no.14-9-06 dated 20 September 2006) quoted in column 2 of the table. Although the difference is not so big, the author considers that INA's data are more accurate.

Russia nourishes special forms of alliance with Italy and Germany, and to somewhat less extent with Austria, Greece and Bulgaria, supported by various bilateral energy agreements. Recent agreements concluded with Serbia are within the same category. Their signing was prompted by economic and political difficulties in Serbia, proclaimed independence of Kosovo and Russia's support to Serbia regarding this issue.

2.1. RUSSIAN RESERVES AND OIL AND GAS PRODUCTION

During the 150-years long history of exploration and production of oil, the total of 120 billion tonnes of oil and condensate were produced in the world. Out of this total volume, the USA extracted 24.9 billion tonnes, Russia is the second with 15.7 billion tonnes[1] and Saudi Arabia the third with 11.8 billion tonnes.

Table 2 presents the countries reserves estimated at 5 135 billion tonnes, representing a 3.25% share of total world reserves of 157 945 billion tonnes in 2002. Russian reserves are not included.

Table 3 for 2002 presents oil output in Europe and the CIS countries which was 760 million tonnes (world: 3 302 million tonnes). The share of production in Europe and CIS was 23%, while Russia produced 336 million tonnes, which accounts for 10% of the total world production.

According to BP Statistical Review of World Energy, June 2008[2] data, in 2007 Russia's reserves were esti-

Table 2. Growth of world oil and condensate reserves in 1970 – 2003 (million tonnes)

World & CIS	Year				
	1970	1980	1990	2000	2002
World total (excluding Russia)	66 974	81 833	130 303	134 242	157 945
Europe & CIS	2 230	5 536	3 390	3 785	5 135

Source 1, According to Oil and Gas Journal, Review issues of 1970 - 2003
Note: 2002 data are forecasts

Table 3. Total world oil and condensate production in selected years (million tonnes)

World & CIS	Year				
	1970	1980	1990	2000	2002
World total	2 264	2 992	3 114	3 344	3 302
Europe & CIS	394	750	783	708	760
Russia	285	547	516	323	336

Source 1, according to Oil and Gas Journal, Review issues of 1970 - 2003

Table 4. Growth of natural gas reserves (billion m³)

World, regions	Year					
	1970	1980	1990	2000	2001	2002
Total world	45 571	85 157	128 954	147 929	154 357	156 035
Europe and CIS	20 181	41 250	60 018	59 652	60 277	61 298
Russia	12 316	31 543	46 880	46 600	47 238	47 827

Source 1, according to Oil and Gas Journal, Review issues of 1970 - 2003

Table 5. Natural gas production in the world (billion m³)

World, regions, Russia	Year				
	1970	1980	1990	2000	2002
Total world	1 060	1 545	2 082	2 391	2 484
Europe and CIS	309	680	1 057	998	994
Russia	83	254	641	587	615

Source: According to Oil and Gas Journal, Review issues of 1970 - 2003

mated at 10 900 million tonnes, hence, double the 2002 figures presented in Table 2.

In 2007 Russian oil and condensate production[2] was 491.3 million tonnes, which is considerably higher compared to 2002. (Tab. 3)

Oil production in Russian Federation grew in the period from 1970 – 1980, after that it had a declining trend until the 1990s. (Tab. 6)

As for the natural gas reserves, world reserves in 2002 (Tab. 4) were 156 035 billion m³, out of which in Europe and CIS 61 298 billion m³, and in Russia 47 827 billion m³ or 30.65% of the world reserves.

With the production of 615 billion m³, Russia accounted for 24.76% of the world natural gas production of 2 484 billion m³, while the Middle East share in total production was 36%.

Natural gas reserves in Europe and CIS were 61 298 billion m³, representing a 39.3% share in total world reserves, compared to the Middle East share of 36%.

In 2007 Russian Federation's reserves[2] were 44 650 billion m³, which is lower than Russia's reserves indicated in the Table 4.

In 2007 natural gas production in Russian Federation was 607.4 billion m³, which is also lower than production in 2002 according to Table 5.[2]

In the last forty years a large portion of oil produced in the Russian Federation came from the Ural-Volga region which has now entered into mature phase and is gradually replaced by West Siberia which is characterized by more difficult and expensive oil extraction.

Table 6 indicates growing oil production in the Western Siberia region and some other regions.

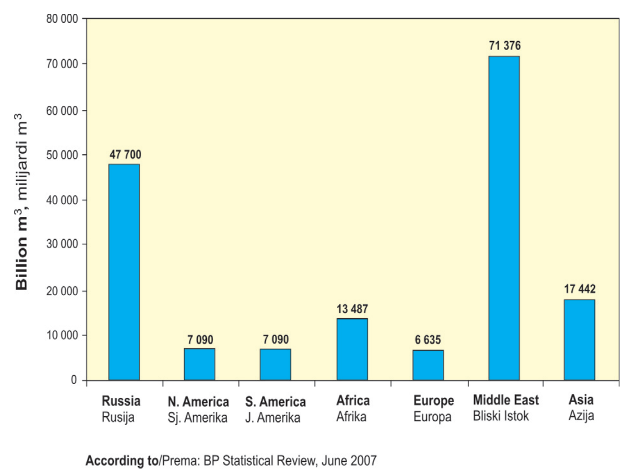

Fig. 1. Proved natural gas reserves in the world
Sl. 1. Poznate rezerve plina u svijetu

Over fifty percent of total oil production is exported as crude oil or oil products.

Natural gas production also recorded slight decline after 1999 but recovered soon after 2000. A large portion of natural gas production is exported, see Table 8. The table also shows that in 2002 Russia itself had natural gas consumption of 245 billion m³.

Russia's natural gas reserves are huge, somewhat less than 50 000 billion m³ (according to BP Statistical Review of World Energy, June 2007, Russian reserves are estimated at 47 650 billion m³) and are the second largest natural gas reserves in the world, immediately after

Table 6. Oil production (including condensate) in different regions (million tonnes)

Region	Year						
	1970	1980	1990	1995	2000	2001	2002
Russian Federation	285	547	516	307	323	345	380
Oil	282	541	506	298	315	336	370
Condensate	3	6	10	9	8	9	10
Europe (north and north-west)	8	22	17	11	13	14	19
Ural-Volga region	209	191	113	83	81	84	90
Tatarstan	100	82	34	25	27	28	26
Bashkortostan	40	40	28	16	11	11	14
Northern Caucasus	35	19	9	3	3	4	5
Western Siberia	31	313	375	208	222	239	260
Khanty-Mansy AD	28	303	306	169	181	195	195
Yamal-Nenets AD	-	-	59	32	30	34	-
Eastern Siberia	-	-	-	-	-	-	1
Far East	2	2	2	2	4	4	3

Source: Russian Statistical Yearbook of 2000 and 2001, Edition of Goskomstat of Russia, TEK 2003

Table 7. Balance of liquid hydrocarbons in Russia, 1990 – 2002 (million tonnes)

	Year				
	1990	1995	1999	2000	2002
Production of liquid hydro-carbons	516	307	305	323	380
Oil	506	298	295	315	370
Condensate	10	9	10	8	10
Processed in Russian refin-eries	298	182	169	174	185
Export of crude	…	126	135	145	187
Export of oil products	…	42	63	61	75

Source: According to Russian Statistical Yearbook, Official edition, Goskomstat of Russia, 2000; Oil and Gas Industry of Russia in the 90s,VNIIONG, 1999; Russia 2003: Statistical Handbook, Goskomstat of Russia, 2003

Table 8. Balance of natural gas in Russia 1999 – 2002 (billion m³)

	Year				
	1990	1995	1999	2000	2002
Total gas	641	595	592	584	615
Natural gas	601	570	564	555	583
Associated gas	40	25	28	29	32
Gas export	211	192	205	194	185
Consumption outside CIS	101	122	131	134	150
Consumption in CIS	110	70	74	60	35

Source: According to Russian Statistical Yearbook, Official edition, Goskomstat of Russia, 2000; Oil and Gas Industry of Russia in the 90s,VNIIONG, 1999; Russia 2003: Statistical Handbook, Goskomstat of Russia, 2003 the Middle East regions. These relations are presented in Figure 1.

The fact is that Russia disposes with large natural gas reserves, however, current production trends do not substantiate potentials for meeting the growing demand of the EU and higher share of Russia's export to Europe, at least not without significant investments into further exploration and development operations.

And who are the operators of current exploration and production activities in Russia?

2.2. RUSSIAN LARGEST OIL AND GAS COMPANIES

The largest oil and condensate producers, according to 2004 data, are listed in the table below (Note 1).

Table 9. The largest oil companies, their production and reserves

Company	Oil production (mil t/y)	Oil reserves (bill. t)
Yukos	85.7	2.5
Lukoil	84.1	1.7
TNK-BP	70.3	4.3
Surgutneftgas	69.6	1.4
Sibneft	34.0	0.6*
Tatneft	25.1	
Rosneft	21.6	1.6
Slavneft	22.0	
Basneft	12.1	
Gazprom	12.0	
Rusneft	60.6 **	0.63
Largest companies total	451.5	
OTHER	27.3 (5.7%)	
TOTAL	478.8 (100%)	

*According to E. Bogounov[1],

**this information is probably inaccurate. According to some sources production was about 15 mil t/y.

The first five companies recorded increase of production volumes in the period from 2001 to 2004, while the other six had slightly higher or stagnant production. The group OTHER includes about 150 companies. As a group they had a declining production, and in total they accounted for 6% of total production.

After the year 2000 the Russian companies started to recover and it was reflected in their output. In the period 2001 – 2005 average production growth rate was 10.5%. The individual company production growth rate is presented in Table 10.

As for the natural gas production, the state-owned Gazprom's production in 2004 accounted for 87% of the total Russian production. Out of 540 billion m^3 of produced gas, domestic market absorbed 31%, 61.5% was exported to European countries and about 7% was exported to the CIS countries. (Data presented in Figures 2 and 3: supplied by Mr. Niko Filipović, director of INA's branch office in Moscow).

Table 10. Growth of production in the largest Russian companies

	Growth of production 2001-2005 (%)
Sibneft	19.2
Yukos	16.3
TNK-BP	14.5
Slavneft	12.4
Surgutneftegaz	9.8
Lukoil	4.6
Rosneft	4.2
Bashneft	0.3
Tatneft	0.2

In the world ranking of the largest oil producers Lukoil is the 5th ranked, TNK-BP + 50% of Slavneft – 9th, Surgutneftegaz 10th, and Sibneft + 50% of Slavneft 15th (TNK-BP and Sibneft have each 50% in Slavneft).

This was the situation in 2005. With continuous rise of oil prices in 2006 and 2007 the situation changed. By the end of 2007 it was announced that the market value of PetroChina was US$ 1 000 billion, while Exxon Mobile with US$ 487.7 billion became the second (according to INA Glasnik no. 1909 of 20 November 2007).

In June 2006 Russia surpassed Saudi Arabia in daily oil production with 9.23 million bbl/day, compared to 9.16 million bbl/day of Saudi Arabia.

Comparison of production by Russia, Saudi Arabia and OPEC countries is presented in the Figure 4.

During the last 20 years the scene of the Russian oil industry has gone through dramatic changes three times. During the USSR, the state had full control over the industry. Everything was in the state's hands, even services by well-known international companies were rarely used, if at all. Then everything changed in the 1990s when the then President of the Russian Federation, Boris Yeltsin, enabled privatization of oil companies to the benefit of people close to him who participated in the privatization. The following companies were privatized: Lukoil, Surgutneftegaz, Yukos, Tyumen Oil Co. (TNK) and Sibneft. Even Gazprom was partly privatized, but during the presidency of Mr. Putin the privatized share (39.8%) was renationalized.

In September 2003 President Putin and the British Prime Minister agreed the sale/purchase of 50%-stake in TNK to BP for US$ 8 billion. The company was renamed TNK-BP.

In December 2004 Rosneft bought on auction Yuganskneftgaz, the most important producing arm of Yukos (but later it was forced to sell it to be able to pay several-year tax arrears).

The process of consolidation of the Russian oil industry continued during 2005. The government purchased 10.9% of Gazprom's shares on stock

[1] Russian Academy of Natural Sciences, Institute for Economics and Geology issued a handbook with relevant data on potentials of Russian energy sector: Mineral Resource Base of Russia's Fuel and Energy Complex, Status and Forecasts, Moscow 2004.

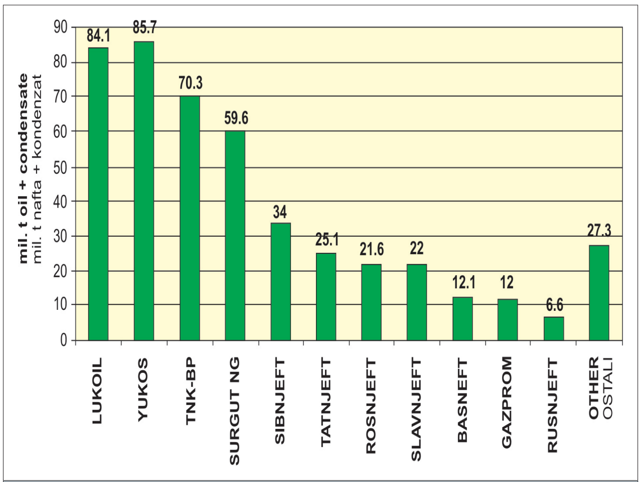

Fig. 2. Ranking of largest oil producers in RF in 2004
Sl. 2. Rang lista kompanija proizvođača nafte u Ruskoj Federaciji 2004. godine

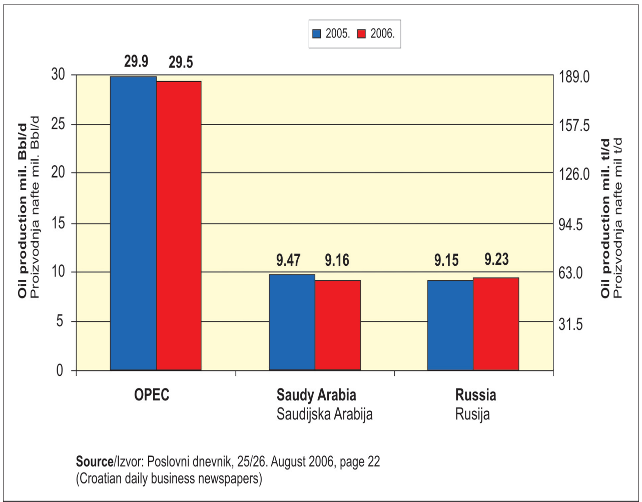

Fig. 4. Daily oil production in June 2005/2006
Sl. 4. Dnevna proizvodnja nafte u lipnju 2005./2006.

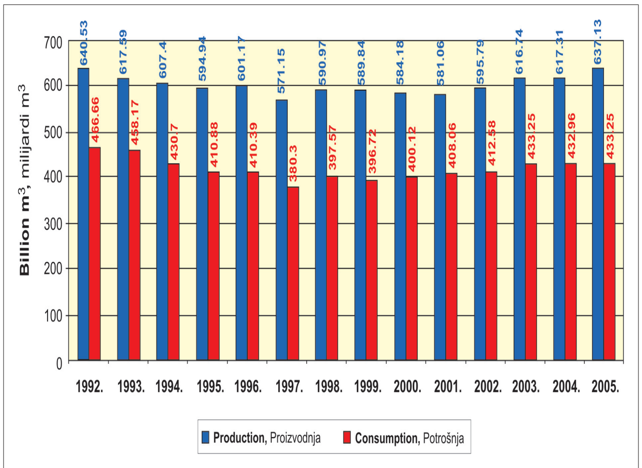

Fig. 3. Natural gas production and consumption in RF (1992 - 2005)
Sl. 3. Proizvodnja i potrošnja plina u Ruskoj Federaciji (1992. – 2005.)

exchange and thus gained 51%-stake and ensured control of the company.

A deviation from the renationalization process (Note 2) was a sale of 10% stake in Lukoil to the American Conoco Phillips in 2005 for about US$ 2 billion. By the end of that year the companies concluded several joint venutres for the development of oil fields with other Russian companies (Timan-Pechora, possibly even recapitalization), consequently, Conoco Phillips increased its share in Lukoil from 7.6% to 20%. Most probably the series of such agreements paved the way for Lukoil's entrance to the US market (see the text about Lukoil).

The consolidation of Russian energy companies, particularly those in the oil and gas sector, brought about new strategic orientation toward internationalization of operations (for example Lukoil) or Gazprom's step for reaching end consumers in some European countries, which points to their global positioning.

As a result of this new strategy pursued by the Russian companies, the West and particularly the EU, became very cautious and weary about further increase of Russian supply share, specifically in case of natural gas.

During the conflict between Belorussia and Russia at the end of 2006 regarding the price of natural gas, the EU became very concerned about security of long term supply from Russia which was at the level of 155 billion m³ in 2005. Namely, in addition to its own gas, Russia takes over about 105 billion m³ of gas from Uzbekistan and Kazakhstan, which might be endangered after the death of the Kazakhstan's President Nazarbajev, as any change in intergovernmental relations in these turbulent regions could put in question the supply volumes for Europe.

Belarus president Lukashenko tried to play war games with Russia by increasing gas transit fees. Very likely, he himself did not expect to receive EU support for such actions, and anyway, he has been perceived by Europe as an authoritarian, old-style leader.

On the other side Gazprom has a strong state support for its strategy based on two main objectives:

- Already mentioned aspiration to „reach end customers“ in other countries, i.e. penetration into international market through access to distribution, frequently imposed as a condition for concluding long term supply contracts,
- Gaining ownership stakes in transit and transportation companies as well as gas supply or distribution companies in various countries.

[2] Several international oil companies attempted and/or succeeded in acquisitions:
- BP invested US$ 8 billion in the project in West Siberia (2003/2004), and in 2006 it was forced to accept contract amendments,
- Total paid US$ 1 billion for 25% stake in Novatek, large gas producer,
- Chevron-Texaco, Petrocanada and Statoil intended to gain ownership in Gazprom, in which, supposedly, E.ON holds a 6%-interest.

Table 11. Ranking of the world largest oil producers in 2005

Company	10^3 bbl/d	Million t/y	Position
Exxon Mobil	2 571	125.4	1.
BP	2 531	123.4	2.
Royal DuchShell	2 253	109.9	3.
PetroChina	2 235	111.8	4.
Lukoil	1 714	85.7	5.
Chevron Texaco	1 710	83.4	6.
Total	1 695	82.8	7.
Petrobras	1 661	81.0	8.
TNK-BP+ $^1/_2$ Slavneft	1 625	81.3	9.
SurgutNG	1 192	59.6	10.
ENI	1 034	50.4	11.
Conoco Phillips	989	48.2	12.
Statoil	625	30.5	13.
Sinopec	274	13.4	14.
Sibneft + $^1/_2$ Slavneft	900	45.0	15.

According to: Energy in East Europe, issue 60/18 March 2005, Companies, Renaissance Capital, page 6-7

On the wings of high energy prices Gazprom and other Russian oil companies strengthened their economic position and thus gained power for acquisitions all over the world (Note 3).

Lukoil is also pursuing its strategy of growth and global presence. According to some sources[7], Lukoil plans „investments exceeding US$ 112 billion in the period from 2007 – 2016“, earmarked for acquisitions and takeovers which will change its status from international into global company.[7] It is expected that after this process the value of the company will almost double (from US$ 80 billion to US$ 120 - 150 billion).

Lukoil has a strong production portfolio, in 2006 it was 1.8 billion bbl and the projection for 2016 is 4 billion bbl, which represents a sound foundation for such strategy. Apart from US$ 78 billion investments earmarked for exploration and development, Lukoil has set aside additional US$ 34 billion for new acquisitions, which totals the above mentioned proceed of US$ 112 billion.

In 2006 Russian oil and gas companies generated export income amounting to US$ 90 billion, out of which only Gazprom pocketed US$ 31 billion by exporting about 93% of total natural gas export. Gazprom controls 25% of total gas reserves in the world. In addition, the company contributes with 25% in total tax income and has 8% share in total products output in Russia.

Russian oil and gas companies, strengthened by extremely high prices prevailing until July 2008, tended to access EU markets through takeover of European companies. So, Gazprom expressed readiness to buy one of the largest UK gas companies, Centrica. Also, it concluded framework agreements with E.ON and other German companies for the implementation of the North Stream pipeline project. However, EU expressed some concerns regarding such expansion of the Russian majors.

Nonetheless, when E.ON expressed aspirations for taking over one of the largest Spanish energy utilities, Endesa, it was not welcomed by the Spanish government. Likewise, when ENI bidded for Gaz de France, France responded with merger of Gaz de France and Suez. Such reactions can be characterized as economic nationalism. But also, these examples indicate that restrictive policy is not referring only to Russian companies.

Mergers and acquisitions of energy companies, favored by the process of deregulation, continued until large companies could find attractive targets in countries in transition. Now, when suitable targets for cheap shopping are scarce, it is questionable in what direction will further consolidation go. Some will claim that deregulation was necessary for breaking down monopolies, but the recent trends show that in the future we could have two large energy companies in Europe – E.ON and EdF, consequently, instead of monopoly we would have duopoly.

In line with the above described activities, we are witnessing takeover of the Serbian oil company NIS by Gazpromneft. At the same time Gazprom entered into the Serbian gas business by taking over natural gas supply, participation in underground gas storage project and gas pipeline route. In Bosnia, a less known Russian company Zarubezneft, took over the Bosanski Brod refinery.

Aspirations and hope of European countries to ensure sufficient gas supply from diversified sources, without increasing the Russian supply share, are not without grounds. On one side they rely on growing production of Norwegian gas which is expected to rise from 80 m^3/y to 130 m^3/y by 2010.

In addition to this source, as well other traditional sources of gas supply, Europe is increasing the number

[3] In 2005 Gazprom took over Sibneft, purchased from Roman Abramovich. It is believed that in combination with the pressure from the Kremlin, Gazprom forced Abramovich “to accept the offer he could not reject” and sell the assets for half of the estimated price.

of LNG receiving terminals. Within this scheme is the LNG terminal to be constructed in the Croatian part of the Adriatic with 15 billion m^3/y installed capacity at the end of the project, out of which 2 billion m^3 for the supply of the Croatian market.

However, the negotiations between the EU and Russia are going on. The EU endeavors to prevent the Russian monopoly from taking over energy assets and transmission networks across Europe. Therefore a package of measures was designed to liberalize the European energy market, but the EU is also making efforts to apply pressure on Russia to open its pipeline infrastructure to European importers.

Recently Russia signed a memorandum of understanding on gas supply with Algeria, the third largest source of supply for Europe. Some interpret this move as a start of natural gas industry cartelization, similar to OPEC.

The Ukrainian – Russian natural gas price dispute began at the end of 2005 after Ukraine imposed higher transit tariff of US$ 1.6/1 000 m^3/100 km for Russian gas transported through Ukraine. Russia accepted this new transit fee but in return they demanded Ukraine to pay higher natural gas price of US$ 230/1 000 m^3 instead of previous price of US$ 50/1 000 m^3. Albeit it was a dramatic increase for Ukraine, the new price was at the level paid by other European countries, including Croatia. As Ukraine refused to accept these terms (Note 4), Gazprom stopped delivery of gas through Ukraine and left European customers without gas. The former Eastern block countries oriented mainly on imports from Russia (Slovakia, Poland, Hungary and Bosnia & Herzegovina) suffered serious shortage, but it was also felt in Austria and Croatia, though to a lesser extent.

At the same time Gazprom set higher natural gas prices for Moldavia and Georgia, although at lower level, „only" US$ 162/1 000 m^3 (V. Vurušić, „Putin replaced red button with gas valve", Croatian daily paper Jutarnji list Magazine of 7th January 2006, pages 58-59.). At that time Belarussia paid only US$ 44/1 000 m^3, but still it was not „offered" a new price by Gazprom.

Europe was shaken and concerned and a number of high-level meetings followed, among them several EU forums, G-8, etc. In the middle of 2007, during the visit of the Ukranian President Yushchenko to Zagreb, he proposed linking with the Ukranian natural gas and oil pipeline systems through which he intended to organize supply of gas from Turkmenistan and oil from Kazakhstan, based on previous discussions he had with the presidents of Georgia, Azerbaijan, Poland and Lithuania during the conference held in Poland.

Immediately after that President traveled to Turkmenistan and concluded contracts on transit of Turkmenistan's gas through the Russian gas system. Also, he repeatedly refused concluding of an agreement regulating the borders in the Caspian Sea between Azerbaijan, Kazakhstan, Turkmenistan and Russia. Together with Iran, Russia obstructed the pipeline project under the Caspian Sea.

In addition, President Putin took some other important moves: after thorough consolidation of the Russian oil industry – among other transactions it included acquisition of shareholding in Sibnjeft from Roman Abramovich and nationalization of Yukos, previously owned by Mihail Khodorkovsky (Note 5), he forged some important international agreements such as the agreement with Germany on the construction of the new Baltic gas line - NEGPC (North European Gas Pipeline Co), for the supply of Scandinavia, Germany, Belgium, The Netherlands and Great Britain, and Blue Stream II which should bring about 16 billion m^3/y of natural gas to Europe via Turkey.

As mentioned above, the Russian oil and gas companies have undergone through consolidation process and some of them, particularly Lukoil and Gazprom, expand into international markets. Therefore we should say few words about each of them.

The target area for expansion of the Russian companies is primarily the European continent. It was carried out by a series of joint ventures in construction of supply oil and gas pipelines on the northern and southern rims of the continent. Consequently, Croatian energy market is also influenced by penetration of Lukoil, Gazprom and Zarubezneft. The penetration into the European market has been bolstered by separate contracts concluded with European energy giants such as E.ON, ENI and GDF.

In the new constellation of Euro – Asian trading, small European companies could become takeover targets and means of payment for the concessions granted.

Of course, all these schemes are part of lawful and legitimate strategies, as could be explained in political jargon. However, it is important to have a complete picture about the actors in these schemes, if one wants to design and implement its own independent energy strategy. The European Union has not always shown unity in addressing energy dependence. And non-EU

[4] At the beginning of 2005 Russia cut off gas supply through Ukraine, which also flows to Europe. Ukrainian President Viktor Yuschenko, notorious populist, refused to accept higher gas prices imposed by Gazprom, at the same time he "forgot" that Ukraine sold its "domestic" gas to Romania at the price of US$ 230/1 000 m^3.

By the end of 2004, on the repeated parliamentary elections in Ukraine, pro-western Viktor Yuschenko won the elections (during the „Orange Revolution" he beat pro-Russian Viktor Yanukovich). On the next parliamentary elections the winner was Viktor Yanukovich. The second on the election list was Yulia Tymoshenko, Mr. Yuschenko's ally in the Orange Revolution. (However, she insisted on the demand for the review of long-term contracts for gas supply from Russia and when failed to achieve this, she abandoned the parliament).

Y. Tymoshenko, nicknamed „gas pricess" was herself deeply involved in gas trading deals with Russia and made her fortune from these deals in the 1990s. In the turmoil that followed the cut off of the gas supply from Russia, RosUkrEnergo (RUE) emerged on the scene. Semion Mogilevich, most likely co-owner of RUE, together with Gazrpom holds 51% stake in the company. Mr. Mogilevich mediated in the conflict. President Yuschenko accepted higher prices and the dispute ended.

In some media it was mentioned that Ukrainian tycoon Dmitro Firtash was the holder of the 49%-stake in RUE, but most likely he was only a screen for S. Mogilevich, considered by many to be a boss of organized crime. After RUE's involvement in gas trading, Y. Timoshenko lost control over these deals.

[5] In August 2005 it was announced that Gazprom started to purchase Sibneft's shares (valued at US$ 10 billion) whose owner was Roman Abramovich, with the intention to acquire 25%-interest in the company and gain a right to veto Yukos – Sibneft transaction.

countries, like Croatia, vacillate between the EU and their own improvisations.

When Europe resists over dependence on Russian gas, it is not only because of fear and defense against monopoly. There is also fear and doubt about Russia's actual capability of meeting increased export demand. Namely, there is a sharp increase of domestic gas consumption in Russia. Natural gas prices for domestic consumers are low and apart from rising consumption in household sector, it is expected that new power plants will be gas driven. The demand on the Russian electricity market is growing 4 – 5% annually and new power plants need to be constructed to meet this demand.

Moreover, the largest portion of Russia's gas production comes from the mature fields in the western Siberian regions with declining production volumes. Proved reserves estimated at 29 000 billion m^3 will not last forever. The structure of production portfolio is very important. Almost half of the reserves is situated in the north-western Siberian region, 14 700 billion m^3 out of which 20% reserves are on Jamal field expected to come on stream in 2011 and produce 150 billion m^3 /y. This additional production will enable Russia to produce 600 billion m^3/y around 2015 which is comparable with the production level 598 billion m^3 in 2005. The output of all other natural gas producers is about 100 billion m^3/y with upward potential to 150 billion m^3/y after 2010 and up to 200 billion m^3/y by the end of the next decade. But these are plans. According to preliminary information, the Russian authorities intend to increase the price of domestic gas to US$ 100/1 000 m^3 and to level them with the European prices in 2011. However, in 2007 consumer gas prices were still at the level of US$ 50/1 000 m^3! Some consider that this price is below production costs. Consequently, export revenues cover losses of domestic gas sales.

Although data on capacity of the state gas transport system are treated as confidential and are not disclosed, it is held that significant volumes of associated gas is flared because of transport bottlenecks. Russian sources mention 15 billion m^3/y of flared gas, but foreign estimates are 60 - 80 billion m^3/y. Separated associated gas is generally at lower pressure than required for transport through pipelines, so it is necessary to invest in compressor stations, which would increase costs. With current domestic sales prices this is unsustainable. It should be also taken into account that average unit transport cost of natural gas in Russia equals 50% of sales price due to large distances.

Consequently, scepticism regarding potentials of increased supply of Russian gas is more grounded in natural gas price policy in Russia which does not stimulate new investments, than availability of reserves.

3. RUSSIAN OIL AND GAS COMPANIES

It is not always easy to gather detailed information about Russian companies. Even the western sources do not publish complete data. Therefore the short presentation of Russian companies that follows is not fully consistent and does not reveal the same year data.

YUKOS

Yukos is an acronym, from marketing aspect quite cleverly designed combination of the first letters of the largest fields, i.e. operating companies: **Yu**ganskneftegaz and **K**uibyshevnefte **O**rg**s**intez[8].

It was established by the Government decree (Decree No 354, of 15 April 1993). In 2005/2006 it became the first privatized oil company in Russia.

By the end of 2002 the media described Yukos as a new fast-growing, vertically integrated oil company with the reserves estimated in 2001 to over 2 billion tonnes of oil and 250 billion m^3 of natural gas. The reserves were mainly situated in the Western Siberia and Priobskoje was one of the largest fields. In 2002 oil production was at about 70 million tonnes with annual growth rate of almost 20% in the same year.

In addition, Yukos included 5 refineries that processed 33 million tonnes of crude (18% of total Russian refining capacity) and 51% of produced oil was exported into the CIS countries, Western Europe and China. Yukos also operated 1 200 petrol stations. Total workforce counted over 100 000 people and generated profit allegedly exceeded US$ 700 million. The company was involved in the Druzba-Adria project. In the end, Yukos did not survive consolidation.

Until 2004 Yukos was the leader among Russian oil companies, and then, as a a result of unpaid taxes in amount of roughly US$ 3.5 billion and the sale of the most valuable part of its portfolio, Yuganskneftegaz, it was practically destroyed.

The remaining producing units, Tomskneft and Samaraneftegaz, continued production but in 2005 they produced less than 100 000 t/day, only one third of the 2004 output. According to some data, in 2005 Yukos increased refining capacity to 40 million t/y in 6 refineries.

One of the main creditors of Yukos was Rosneft which most probably converted debts exceeding US$ 20 billion into equity after the court rule and is the most likely the taker of Yukos (Note 6). In March 2005 it was announced that Oleg Vitke, the CEO of the joint venture company MOL/Yukos was also arrested on the charge of „excessive oil exploitation of the West Malo Balik field".

And everything began in 1993 when Yukos was established. Due to accumulated debt and tax arrears the government decided to privatize the company. Between 1995 and 1996 following auction process, Yukos became the largest non-state oil company. A new management board was appointed in 1996 with Mikhail Khodorkovsky on

[6] After the Kremlin's decision to put on sale Yukos's assets, valued at about US$ 22 billion, with liabilities of about US$ 26 million, it was expected that the assets would be purchased mainly by Rosneft and Gazprom, including Chevron, Eni and Enel. (Poslovni dnevnik, 21 March 2007, page 15). However, TNK-BP also announced their intention to buy a part of Yukos's assets for US$ 7.5 billion. (Poslovni dnevnik, 26 March 2007)

the top. Before that Khodorkovsky was the president of Nematep bank, which was allegedly privatized with the party's funds. During 1996 and 1997 Yukos increased production, generated high income, and according to information, repaid debts to the state. By the end of the decade it became the leading Russian oil company. In 2002 Yukos produced 51% of oil in Russia. In 2004 the press wrote about debt burden (Dnevnik, 2nd August 2004, page 19) which piled up from 2000 to reach the amount of US$ 3.4 billion. On 28 March 2007 Poslovni dnevnik published the article under the title: „Russian authorities put on auction Yukos's assets".

Already in April 2004 the news spread about M. Khodorkovsky being arrested and charged, together with Platon Lebedev, president of Menatep bank and other associates who participated in privatization of Russian companies during 1994.

During 2004 the legal actions of the state against Khodorkovsky entered into final stage. The outstanding tax burden from 2000 to 2002 rose to US$ 18.5 billion, which was further increased by adding unpaid taxes for 2003 of US$ 5.9 billion. These huge tax claims exceeded the value of assets. By the end of 2004 the state put on auction Yugansneftegaz's assets, the company that produced 60% of total Yukos's oil output, with initial price of US$ 8.65 billion. Although, according to estimates, the value of the company was between US$ 14 and 20 billion, it was still not sufficient to cover the total debt burden, and the entire atmosphere surrounding Yukos was such that western companies did not show interest. Consequently, it was easy for Gazprom to take over this portfolio (Vjesnik, 22 November 2004, page 12). At the beginning of February 2007 it was published that remaining parts of Yukos would be sold on international tender. The value of assets was estimated at US$ 22 billion, while debts to creditors were estimated to US$ 26 billion. Interests for acquisition of the remaining Yukos's assets was expressed by: Chevron, ENI and ENEL among foreign companies and Gazprom and Rosneft. At the same time a new charge was raised against M. Khodorkovsky for embezzlement of US$ 32 billion from 1998 – 2003. Poslovni dnevnik published an article on 5th April 2007, (page 24) according to which ENI-Neftegaz bought part of Yukos's assets for € 4.3 billion.

LUKOIL

Lukoil climbed on the top among the leading Russian companies after Yukos was forced to sell Yuganskneftegaz. With the production of 82 - 86 million tonnes in 2004 (different sources quote different data), Lukoil became the biggest oil producer in Russia. Some sources pointed out extremly competitive lifting costs (Note 7) of 2.6 $/bbl, implying also low production costs. In addition, Lukoil disposes with huge oil and gas reserves of around 20 billion boe, of which 15.97 billion bbl of oil. These reserves place Lukoil immediately after Exxon Mobil as the largest world oil companies. In the recent years Lukoil has recorded steady increase of oil production. It accounts for 19% of total Russian oil production and 18% of total refining. Lukoil has four refineries in Perm, Volgograd, Nizhny Novgorod and Ukhta, with total capacity of about 40 million t/y, plus 14 million t/y in refineries in Bulgaria, Romania and Ukraine.

Oil and gas reserves and production are dispersed from Siberia, European part of Russia, Timan-Pechora to the Caspian region. Outside Russia, Lukoil has or expects production from the fields in Kazakhstan (Karachaganak, Kumkol, Tengiz), Azerbaijan (Shah-Deniz), Egypt, Iran and Columbia.[1]

Lukoil's 2006 revenues recorded significant growth compared to 2005, 9-month comparison in these years indicated growth of over 27% (US$ 51.803 billion in 2006 comapred to US$ 40.574 in 2005). In 2007 Lukoil generated profit of US$ 9 billion.

For fifteen years the company has been led by Vagit Alekperov, CEO, petroleum engineer who created Lukoil. Today he is one of the richest people in Russia with the wealth estimated to about US$ 18 billion.

Lukoil was created in 1991 by merger of three companies: **L**angepasneftegaz, **U**rajneftegaz and **K**ogaljmneftegaz, the first letters forming the name **Luk**oil. During the presidency of Boris Yeltsin, Mr. Alekperov was the president of Lukoil and then he acquired shares in the company.

Lukoil did not expand only geographically by acquiring assets in Europe, where it has refineries in Bulgaria and Romania. It also expanded in gas business. In 2007 one of Lukoil's leaders reported about strategic intent to grow gas business so as to become the second ranked, immediately after Gazprom, with gas production reaching 70 billion m^3 by 2016. (INA, Informacije no 17-4-07/25 April 2007).

In line with the Russian government's strategy (Note 8), the two largest companies with huge reserves and production, Gazprom and Lukoil, are pursuing global strategy. At the beginning of 2007 Lukoil owned a retail network consisting of 5 400 petrol stations in 12 coun-

[7] The Croatian word for lifting is „pridobivanje" and it is also used for „lifting costs" – explanation more relevant for Croatian readers.

[8] On 21 January 2007 it was announced that Lukoil purchased 156 petrol stations in Belgium from ConocoPhilips, and thus gained 10% share in the Belgium retail market. At the same time they announced further acquisition of 383 petrol stations in five European states: Finland, Czech Republic, Slovakia, Poland and Hungary. They counted on additional distribution of 1.4 mil tonne/y of derivatives.

[9] INA's assets in Serbia included: 170 petrol stations, 18 terminals, 11 business premises including fancy offices in central Belgrade (1273 square meters) and car fleet – were sized from INA at the beginning of the 1990s and Beopetrol was established. INA sued three institutions: Privatization Agency of Serbia, Shareholding Fund of Serbia and Lukoil Europe B.V. with registered office in Amsterdam. Via its legal representative in Belgrade, INA claimed indemnification of EUR 117 million and annulment of sale-purchase agreement between the Privatization Agency and Lukol concluded on 26 September 2003. Despite claims raised by INA Zagreb, the Privatization Agency in Belgrade announced that Lukoil won the international tender for acquisition of Beopetrol. It was said that Lukoil offered the best price. Later it was confirmed that the Russians paid EUR 117 million.

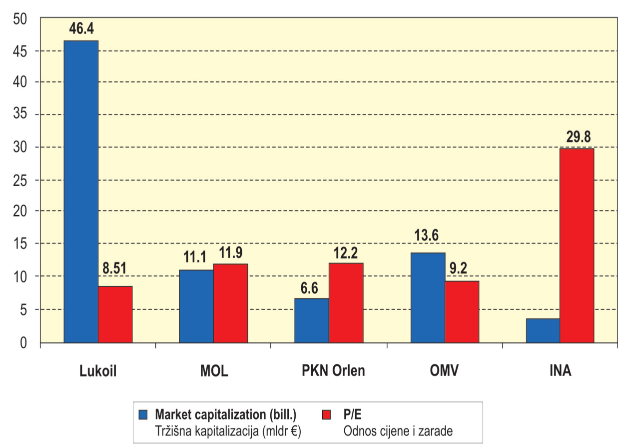

Fig. 5. Lukoil as a leader according to market capitalization
Sl. 5. Lukoil predvodi regionalne igrače

tries. According to recent data, Lukoil has 5 800 petrol stations in 19 countries. The value of the company exceeds US$ 80 billion (Energy in East Europe, issue 100, Oct. 27th 2006), with plans to double this value by 2016 (US$ 150 - 200 billion).

Lukoil has been active in the Balkans. It bought Beopetrol, Serbia, including 170 petrol stations (INA claims ownership over 170 petrol stations in Serbia that were owned and operated by INA before 1991 – Note 9), it was in negotiations with Petrol, Slovenia regarding acquisition of 49%-stake in Petrol, but without success. In April 2008 Lukoil acquired a small retail network consisting of 8 petrol stations and terminal in Croatia. Lukoil also penetrated to the USA, operating a network of over 2 000 petrol stations there. By entering the markets of Serbia and Croatia, in its campaign to acquire the share in the SEE region, interferes with the interests of Central European oil companies (INA, MOL, OMV). It is paving the way for futher penetration to the Southern Europe, including Greece where it has Lastis as a strategic partner, and Italy. At one point Lukoil announced its intention to open 1 250 petrol stations in the region (D. Klobučar; Lukoil and Petrol on a move to attack MOL, Poslovni dnevnik, 30 August 2007, page 8).

Lukoil has steady growth of production which pushed it to the very top:

2002	78.2 mil t
2003	81.5 mil t
2004	86.3 mil t
2005	90.2 mil t

According to information, its finding cost of US$ 2.6/t was very competitive. Production cost, according to sources amounted to US$ 2.66/bbl in 2005 and 3.01/bbl in 2006. If so, their oil extraction costs compete even with those of Saudi Arabia.

Lukoil's expansion on the global market during 2006 can be compared with the wave of mergers and acquisitions of western oil companies from 1998 – 2000. In 2006 purchased 156 petrol station in Belgium from ConocoPhilips and thus acquired 10% of the Belgian market (Poslovni dnevnik, 25 January 2007, article by Patrik Brcic: «With acquisition of petrol stations in Belgium Lukoil becomes a brand», page 14). The same source quotes agreement of the two partners for Lukoil's acquisition of additional 383 petrol stations in Finland, Czech Republic, Slovakia, Poland and Hungary. They expressed readiness to invest further US$ 100 billion by 2016 to be positioned among the top 10 world oil companies.

Lukoil showed interest for takeovers on smaller markets, too (Note 10). In mid September 2007 some media wrote about Lukoil's interest for takeover of Central European companies like OMV, MOL and PKN Orlean (Poslovni dnevnik, 14/15 September 2007, page 28). These companies responded immediately by rejecting such possibility, with the support of their governments. The Figure 5 indicates market value of the mentioned companies in 2007 and comparison with Lukoil whose value of € 46.4 billion exceeded total value of the four presented companies of € 34.8 billion. However, this information also points to a possibility of individual company becoming a takeover target.

According to some sources, the CEO, Vagit Alkperov, and Leonid Fedun own about one fourth of Lukoil's shares, Conoco Philips hold 20% and other shares are floated in the open market. Since 1993 state's stake is zero.

ROSNEFT

After Rosneft's acquisition of Yukos's portfolio for US$ 22 billion, it was obvious that the Russian Government's expectations are rather high concerning Rosneft. By 2012 the company's production output should reach the level of 140 million tonnes. The growth in the 4-year period from 2003 to 2007 was impressive: from 22 million tonnes it rose to 103 million.

In the 1Q08 Rosneft generated revenues of US$ 16.37 billion and profit of US$ 2.56 billion. In 2007 net profit increased 7 times compared to previous year. Just for comparison, at the same time Lukoil recorded US$ 25.8 billion revenues and US$ 3.16 billion profit. (Poslovni dnevnik, 10 June 2008, page 9).

Table 12. Production and revenues relized and planned

Year	Production (mil t)	Income ($/b)
2006.	80	2.7
2007.	103	16.1
2012.	140	23.5

Lukoil had slightly lower results than expected, while Rosneft, despite considerable debts incurred for the acquisition of the Yukos's portfolio, had excellent performance. In addition to 40% increase in oil production by

[10] In early 2007 Croatian media wrote about Lukoil's interest for acquisition of Tifon, a small network of well positioned new petrol stations and accompanying infrastructure, however, MOL was more successful in this case. In 2007 Lukoil also participated in the tender for acquisition of Montenegro bonus where they competed with INA, MOL and Petrol, Slovenia. Petrol won the tender.

2012, Sergej Bogdanchikov, CEO of Rosneft, announced 40% decrease in debts from the current US$ 25 billion, and boost of refining capacity (9 times), (Poslovni dnevnik of 4 September 2007, page 15, M. Dobrošin: Rosneft to become a leading world company by 2012). With the acquisition of Yukos, Rosneft's refining capacity quadrupled, and according to plans, by 2015 it should reach 90 - 95 million t/y.

TNK-BP

For some time was the second largest Russian oil company. It was established in 2003 by merger of the Russian company Sidanco with the BP's production portfolio in Western and Eastern Siberia and the Volga and Ural regions. BP has 50% of shares in TNK-BP, while other shares are owned by Russian investors (Note 11). In 2005 TNK-BP held about 50% shares in the Russian company Slavneft. TNK-BP owns over 2 000 petrol stations in central Russia and Ukraine, with strong presence in Moscow. The company employs 100 000 workforce in Russia and Far East (Sahalin). In 2004 TNK-BP had production of 72 million tonnes of oil which represented a 13% increase over previous year. The consultants De Golyer & Mc Naughton estimated TNK-BP's reserves to 8 - 9 billion boe[2] at the end of 2004. This is significantly lower than other estimates. Possibly the difference appeared because Slavneft's reserves (50% owned by TNK-BP) were not added.

In April 2008 (issue of 25/26 April) Poslovni dnevnik quoted information that Gazprom, supported by top government officials, offered a bid for acquisition of shares in TNK-BP held by Russian billionaires, including 1% from BP. (The information also quoted value of TNK-BP of US$ 30.6 billion, and Gazprom of US$ 318.8 billion.

Will BP's share be squeezed? Will it turn to squeeze out?

A conflict that sparked in the TNK-BP board (Poslovni dnevnik of 4 June 2008, page 4) was about strategic direction of the company. Russian managers insisted on expansion to international markets, while BP's board members focused on exploration and production in Russia. Resignations and changes in top management are usual outcomes of such conflicts. However, it is not very clear what was the cause and consequence of the conflict. Moreover, if we have in mind several-year trend of forcing out foreign investors.

SURGUTNEFTEGAZ

In 2004 Surgutneftegaz extracted 59.4 mil t of oil, which represented 10% increase compared to 2003. Natural gas production was 15 billion m^3. These production figures put Surgutneftegaz among the largest oil companies in Russia[1] (immediately after TNK-BP with 50% of Slavneft) and tenth in the world. Oil and gas production came from 38 fields in west Siberia.

According to De Golyer & Mc Naughton valuation of reserves in 2000, Surgutneftgaz's proved reserves comprised 18.3 billion bbl of oil or 2.5 billion tonnes of oil equivalent. Most likely the management holds the majority of the shares, including Mr. Vladimir Bogdanov as the President. About 20% of the company's shares is listed on the Russian stock exchanges.

Surgutneftegaz has only one refinery near Sankt Petersburg (Kirishi), with relatively small capacity.

SIBNEFT

In the period from 2000 to 2004 Sibneft recorded the fastest growth of production among the Russian companies. The production volumes increased from 20 mil t to 34 mil t. Average annual growth from 2001 to 2005 was 19.2%.

Sibneft's refinery in Omsk with capacity of 195 mil t/y is one of the most advanced in Russia. Back in 2005 (Note 12) there was a general belief that Roman Abramovich (Note 13) was a majority owner with 72% of shares in the company.

According to Society of Petroleum Engeneers (SPE), Sibneft's proved reserves have been huge, around 4.65 billion bbl or about 600 million tonnes, which ranks it among the 20 largest oil companies in the world.

A large portion of reserves is situated in the west Siberia, and in 2005 Sibneft extracted 67.7% of total oil production from this region.

Sibneft holds a 50%-stake in Slavneft, the other 50% is owned by TNK-BP. By the end of 2005 the majority owner Roman Abramovich conceded to political pressures and sold his 72%-stake to Gazprom for US$ 13 billion.

TATNEFT

In 2004 Tatneft's oil production was 24.6 million t of oil. According to SPE methodology, Tatneft's proved reserves were 5.96 billion bbl, or about 770 million tonnes. According to the data presented by E. Bogunov[1], crude oil from Tatneft's fields is of somewhat lower quality.

25% of Tatneft's shares is listed on stock exchanges, remaining shares are in the hands of the management and officials of the Republic Tatarstan. The shares listed on stock exchanges (Dieseldorf, Frankfurt, Stuttgart and Berlin), recorded 60% increase in value in 2004!

BASHNEFT

Bashneft developed over 160 fields in the Russian Republics Bashkortostan and Tatarstan and the Orenburg region. The reserves are characterized by large percentage of watered out reservoirs and high sulphur content.

[11] Investors were: Alfa Group, Access Industries and Renova (AAR).

[12] In September 2005 it was announced that R. Abramovich was about to sell his majority stake (72%) in Sibneft to Gazexport. However, in 2003 R. Abramovich sold 20% of Sibneft's shares to Yukos for US$ 3 billion, and at that time Khodorkovsky had been arrested, but this transaction was not canceled, so it is not clear what happened with this 20% shareholding.

[13] Roman Abramovich, born in 1966, graduated from petroleum engineering faculty, entered into oil trading business rather early. He purchased domestic oil and exported it to international market. When Boris Yeltsin began re-election campaign in 1996, he asked assistance from Berezovsky who owned newspapers and TV channels, and Mr. Berezovsky introduced to him R. Abramovich. The two supported Yeltsin's campaign through media promotion and funding. In return, Berezovsky and Abramovich were given opportunity to buy Sibneft for only US$ 100 million (!). It was only about one tenth of its real value. After V. Putin's victory on the 2000 elections. Abramovich moved abroad while Berezovsky ended in prison.

In 2004 Bashneft produced 12.1 million t of oil. Proved reserves were at the level of 381 million t.

RUSSNEFT

Russneft was set up in 2002 and soon it was among the fastest growing oil companies. The data about the company's assets and grounds for such growth differ in various sources. Some sources quote proved reserves of 630 million tonnes of oil. Such reserves could ensure high annual production. Depending on business policy, realistic production would be from 30 mil t/y to 50 million t/y. Some sources quote production figures of 6 mil t/y, the other say 1.5 million t/y (300 000 bbl/d or approximately 40 000 t/d). Some other data, as for example Poslovni dnevnik, quoted 17 million t/y oil production. According to the same source, Russneft had 3 refineries, 300 petrol stations and 20 000 employees.

Until 2007, the owner of Russneft was a controversial Michael Gutzeriyev. With support of the state officials, in 2005 Gutzeriyev took over a part of Yukos's portfolio including 50% interest in the West Malobabskoe field. The other 50% was acquired by MOL.

M.Gutzeriyev was later indicted for tax evasion and illegal oil sale transactions through which he pocketed about US$ 290 million between 2003 and 2005. Before establishment of Russneft, until 2000, Gutzeriyev was the head of Slavneft! Actually he was removed from Slavneft when the takeover battle began for Slavneft's assets.

In a chapter of the book „Transition of the Energy Sector: Obverse and Reverse of INA's Privatization", the authors: T. Dragicevic, S. Kolundzic and M. Prostenik wrote, „Who was in the background of White Nights Co. takeover? According to a number of indications it was Mikhail Gutzeriyev from Russneft."

INA bought oil fields in the western Siberia called White Nights by the end of the 1990s. The fields were upgraded and put into production. In 2000 INA faced problems with the transport of produced oil and soon after that it was forced to sell off these assets. Russneft appeared as a potential buyer together with TNK BP. In the end, the White Nights Co. was acquired by PBS. According to sources, the actual buyer was M. Gutzeriyev.

However, in July 2007 M. Gutzeriyev had to depart from Russneft after a year of attacks on him and the company. The episode is reminiscent of the state's attack on the Yukos former chief Mikhail Khodorkovsky. Russneft was taken over by Oleg Deripaska's Basic Element, a holding whose major component is the world's largest aluminum producer, United Company Rusal.

NOVATEK

Novatek is the largest independent natural gas producer in Russia. Proved reserves are estimated at 1 680 billion m^3 of natural gas and 252 million tonnes of oil. In 2004 Novatek produced 25 billion m^3 of gas, in 2006 28.7 billion and in 2007 about 30 billion m^3. Main shareholders in the company are: JSC „Levit" with 46.6% and SWGI Growth with 40.6%, together with the Novatek's president Leonid Mikhelson and deputy governer of the Yamal-Nenets Autonomous Region, Iosif Levinzon, and they have full control over company. According to information, 20% of Novatek's shares are floated on the London Stock Exchange. The Yamal area accounts for 90% of Russian gas production. This is almost 1/3 of the world production.

According to information, in addition to the extension of the longterm gas supply contract, Italian ENI got the right to purchase 20% of shares in Novatek.

TRANSNEFT

Transneft, is the operator of crude oil and oil products transport system and is 100% owned by the state. It owns 48 708 km of oil pipelines and transports 93% of oil produced by Russian companies. It is considered that the company takes advantage of its monopoly position and sets high transport tariffs that exceed lifting cost.

Transneft expressed intentions of expansion outside CIS countries (Note 14). During the Belorussian – Russian conflict in 2006/2007 one of the Russian requirements was entry of Transneft in the Belarussian oil transport system and gaining ownership rights.

During 2007 there were some rumors about merger of Transneft and the other Russian pipeline transporter, Transneftprodukt.

ZARUBEZHNEFT

Zarubezhneft is a less known Russian company, although it has over 40-year long tradition. It has been focused on oil and gas related activities outside Russia's borders. It remained state-owned although in January 2004 it became a joint stock company by the President Putin's decree.

Since its establishment, the company had a task of pursuing Russian national interests in the international energy market through participation in oil and gas projects attractive for the Federation. Zarubezhneft gathered experience and expertise even in the Soviet era through participation in the projects around the world: Algeria, Vietnam, India, Cuba, Iran and Iraq. In a number of developing countries Zarubezhneft set the foundations of oil industry.

[14] Transneft also expressed interest for acquisition of a 34%-shareholding in Energo, gas distribution company in Rijeka, Croatia, held by AMGO, partner to the German company Thuega. The object of sale was actually a concession for the development of gas distribution network in the coastal towns Kraljevica, Kostrena and Čavli. Estimated value was 6 mil. €, increased by 7 mil. € liabilities.

[15] His subsidiary NaftegasinCor is one of numerous companies owned by Zarubezneft, and it is a direct buyer of the Bosanski Brod refinery, lubricant plant Modriča and retail network Petrol. Full-scale modernization of the plant should be completed by 2010. Investments are estimated at 979 mil. €, out of which 422 million were spent already in 2007. (Privredni vjesnik, 12 March 2007, p. 25). However, this entire transaction is based on the requirement that during the first three years the fuels produced by the Bosanski Brod refinery are exempted from prescribed standards in B&H, i.e. that distribution of higher sulphur content fuels is allowed. Of course, the Russian investor wanted to protect its interests in a rather small market marked with strong competition. But of course, primarily Zarubezneft's interest.

During the last five years the company contributed to the state budget with about US$ 500 million. On its web site the company promotes goals such as expansion into the new markets, growing presence in the international oil market and preparation of new projects attractive for investors. Although, the company's primary role is implementation of international projects (Note 15), Zarubezhneft is also successful in exploration and development projects in Russia. In 2006 Zarubezhneft's president Nikolai Tokarev signed a deal with the Prime Minister of Republika Srpska, Milorad Dodik, for acquisition of the refinery Bosanski Brod and lubricant plant in Modriča. According to information published in Poslovni dnevnik, Zarubezhneft paid €121 278 846 for these assets (Note 16). The first phase of upgrading of the Bosanski Brod refinery was completed in the second half of 2008. With this modernized plant in full operation INA has got a strong competitor, particularly in regard to exports of products to Bosnia and other regional markets. But not only INA.

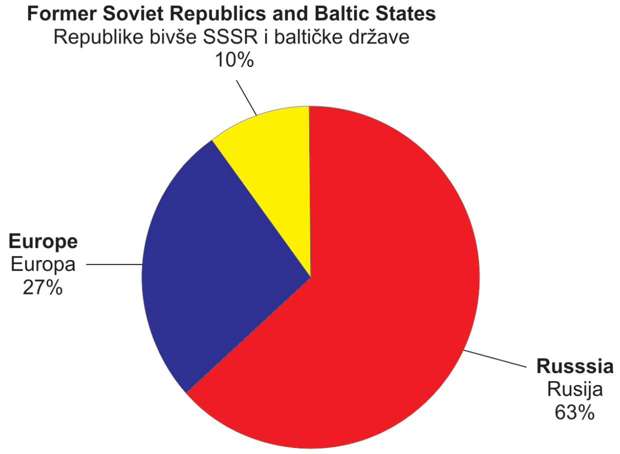

Fig. 6. Distribution of Russian gas (%)
Sl. 6. Distribucija ruskog plina (%)

GAZPROM

In this order of presenting the Russian oil companies Gazprom was not mentioned at the beginning not because it is less important, on the contrary, but because it is primarily a gas company, the largest gas company in the world.

In 2004 Gazprom produced 545 billion m³ of natural gas and 12 million tonnes of gas condensate. With market capitalization of US$ 225 billion, Gazprom was the third largest energy company in the world. In autumn 2007 Gazprom purchased 72.6% stake in Sibneft for US$ 13 billion. Thus, it increased its share in the Russian market from 3% to more than 10%.

- Gazprom's export of gas to Europe meets 25% of total European demand.
- Gazprom owns 60% of Russian gas reserves.
- According to independent consultant De Golyer & Mc Naughton, in 2002 Gazprom's reserves were esti-

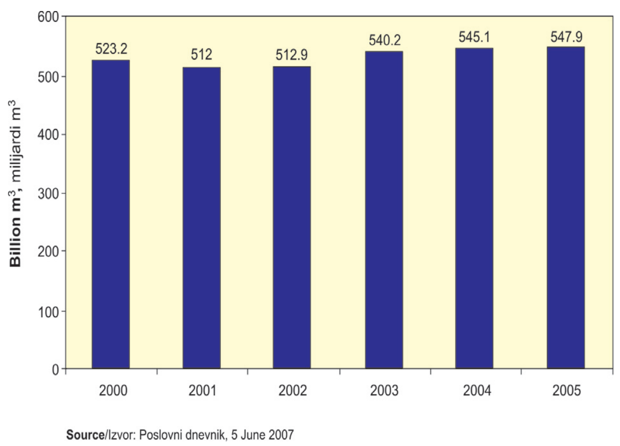

Fig. 7. Gazprom – natural gas production
Sl. 7. Gazprom – proizvodnja prirodnog plina

[16] According to articles published in Poslovni dnevnik of 8 February 2007 (journalist D. Klobučar), in the deal Zarabuzneft purchased:
- 80% of shares in Bosanski Brod refinery for EUR 42 million.
- 75.6% of shares in lubricant plant Modriča for EUR 67 million.
- 80% of shares in Petrol's retail network (Banja Luka) for EUR 10 million.
- Total purchase value of the assets was EUR 121.2 million.
- Zarubjeznjeft committed to reconstruct railway track – estimated investment of EUR 59 million. The reconstructed railway track will then be handed over to the state.

Operational plans for Bosanski Brod and Modriča plants:
- The Bosanski Brod refinery capacity should be increased to 4.2 million tonnes/year
- Modriča lubricant plant's output is to be increased to 130 000 tonnes of oils and lubricants /y
- Retailer Petrol should receive additional quantity of minimum 2 500 t/y of products.

Zarubezneft is a top builder of refinery plants with long experience and expertise:
- Since its establishment Zarubjeznjeft constructed refineries around the world for which it also provided engineering and later maintenance services.
- Contrary to a number of other Russian oil companies, Zarubeznjeft was not established after break down of the USSR, but in the period following the Cold War when it was known as Institute for Refinery Engineering.
- According to performance, Zarubeznjeft is among the leading oil and gas companies in Russia, capable of constructing complex oil and gas facilities around the world. Zarubeznjeft owns a large refinery in Vietnam including a number of joint ventures with international companies.

The Bosanski Brod refinery can reach eurograde quality of fuels rather quickly. Once, it was the most advanced refinery in the former Yugoslavia and it used to produce high quality fuels. Bitumen produced in Bosanski Brod was exported to the most demanding European markets. But today the refinery is not able to produce low sulphur derivatives according to EU standards. Nevertheless, according to refining experts' opinion, upgrading of the plants will not require such huge investments. The biggest advantage of the Bosanski Brod refinery is Isomer unit which, when upgraded, could produce diesel fuel grade complying with the highest quality standards, and moreover, it would produce feedstock for the lubricant plant Madrigal and enable the plant to triple its output.

mated at 16 800 billion m^3 of gas, around 374.9 million tonnes of gas condensate and 7.7 million tonnes of oil.

- Gazprom was created by Michael Gorbachov (Note 17), but President Putin used the company in a new way.
- President of supervisory board was Dmitrij Medevedev (Note 18), (born in 1965) who became the President of Russia.
- At the time of President Yelcin's plundering privatization, the state lost majority ownership in Gazprom, however it has always maintained strong influence over the company through its management structure.

Russian gas meets about 25% of European demand, but its share in total Europe's imports of gas is around 50%.

In the 1980s Gazprom did not particularly prosper. Within its portfolio it had three large fields (Urengoy, Yamburg and Medvezhe) and a dozen of smaller fields. Thanks to their size, the three large fields benefited from very low production costs. However, these fields enter into mature phase and will have to be replaced with new reserves. (Jonathan Stern: The changing face of Gazprom, IGU, Fundamental of World Gas Industry, 2006, pages 35-39).

Production is moving from dependence on the Urengoy, Yamburg and Medvezhe to a larger number of smaller fields requiring more complex and costly development and more costly transportation options. The new giant Zapolarnoye field was put on stream in 2001 and already in 2004 its output climbed to 100 billion m^3/y. However, the maturity of the production portfolio suggests that by 2020 the company should find replacement reserves of 200 billion m^3/year.

Jonathan Stern, director of Oxford Institute for Energy Studies, warned that pricing policy of natural gas in Russia is likely to make the situation more difficult with prices of only US$ 40/1 000 in 2005 and expectedly US$ 60/1 000 m^3 in 2010. Low domestic prices for gas reduce Gazprom's financial resources and constrain its investment capabilities.

Gazprom has in place long-term agreements until 2010 for import of gas from the Caspian region countries: Kazakhstan, Turkmenistan and Uzbekistan at equally low prices. On the other hand, within the scope of its global strategy, Gazprom decided to sell LNG produced from the Sahalin II reserves, to Japan, South Korea and Mexico. According to plans, upon completion of the Shtokman field, produced gas would be exported to the USA. Export pipelines to Europe and Asia would be also expanded. This is a very ambitious strategy.

However, restructuring of the Russian domestic market has been delayed, which consequently delayed Gazprom's (cost) restructuring. With a high share of domestic market, marked with unfavourable structure and prices, there are doubts about credible possibility of its supply.

Russia once again rejected ratification of the Energy Charter (signed in 1998 together with other 50 states) and constrains access to foreign companies to its oil and gas fields and transmission lines. By the end of 2006 the EU leaders held a meeting with Vladimir Putin regarding cooperation in energy sector. The echo of this unsuccessful meeting was reflected in the statements of the foreign minister, Mr. Lavrov. He said that Russia rejected the EU pressure for wider access to be allowed to foreign investors to oil and gas resources and transit pipelines in Russia. He added that Russia respected the principles of this international agreement, but that the Kremlin was against some stipulations of the document.

The EU leaders tried to convince Russia to ratify the Energy Charter that, among other things, regulates transit of energy sources and investments in the energy sector. Liberalized access of the majors and independent oil and gas companies would enable more competition. However, the former President Putin and other officials said they were not willing to ratify the Charter in its present form because they felt the Charter discriminated against Russia. Mr. Putin emphasized that he was particularly concerned that the Charter did not govern transit lines in other countries where Russia wants to invest.

Indeed, Brussels should understand that time has come for building cooperation with Russia on new foundations and not those that existed twenty years ago.

Gazprom released information about its intention to move its headquarters from Moscow to St. Petersburg. They even selected the winning bidder for architectural design of the new tower. The proposed design is really impressive. The new building is to rise more than 300 meters into the sky and symbolize the growing power of the firm.

Will Gazprom's headquarters really move from Moscow?

Gazprom's new building – a symbol of growing power of the firm Mr. Dmitriy Medvedev was the President of Gazprom's Board of Directors from 2000 to May 2008 when he was elected the president of the Russian Federation.

As mentioned before, currently Gazprom exploits three large fields: Urengoy, Yamburg and Medvezhe. After 2020 these fields will be depleted. It is important to find replacement for the production of over 200 billion m^3/y. The huge new fields in the Yamal Peninsula represent a promising potential for new production. However, the investments in the development of the Yamal fields are estimated at US$ 20 - 25 billion for expected production of 100 - 200 billion m^3/y but in 2014.

In the meantime it is necessary to develop some other offshore fields in the Ob and Taz bays. There is a pipeline connecting these fields with export pipelines. Expected production is around 80 billion m^3/y (Jonathan Stern:

[17] M. Gorbachov appointed the former Soviet Minister for natural gas, Viktor Chernomirdin as the president of Gazprom.

[18] It is said that the President Medvedev, apart from lower stature than President Putin, resembles him very much in many aspects…the way of speaking, gestures, movements… They started to work together in Sankt Petersburg city administration. When Vladimir Putin became the President of Russia he invited Dimitriy Medvedev to be his chief o presidential staff. In 2000 D. Medvedev was appointed the Chairman of Gazprom's board of directors. Today, after seven years, Gazprom has become one of the world leading oil and gas companies. Mr. Dmitriy Medvedev was proposed as presidential candidate by Vladimir Putin and in March 2008 he was inaugurated President of Russia.

"The changing face of Gazprom, WGC News, 6 June 2006, page 8).

Huge reserves are also being developed offshore Sakhalin Island – Sakhalin 1 and 2 projects. The first ever production sharing agreement was signed in 1994 with the consortium of foreign companies. The consortium Sakhalin Energy had a contract to produce gas without a local partner but this changed in 2006, when, under political pressure, it was forced to sell a majority stake to Gazprom.

In 1994 when oil and gas prices were low, Russia needed foreign investors because the complex development of oil and gas fields required considerable investments and advanced technology. This is why the consortium was formed by the following companies: Shell with 55% share, Mitsui with 25% and Mitsubishi with 20% share.

The development of the project was delayed and initially assessed investment US$ 10 billion increased to 20 billion according to 2006 estimate. Russian authorities expressed dissatisfaction with delays and lavish spending. The postponement of project realization and putting the fields into operation meant also postponement of inflow of revenues for the state budget. The existing dissatisfaction culminated with environmental concerns of the project. In the end, Shell was forced to sell majority stake to Gazprom because of the company's alleged breaches of environmental rules.

The CEO of Royal Dutch Shell, Van den Veer, proposed to Aleksey Miller in December 2006 that he was ready to accept changes and Russia's demand to include Gazprom into consortium in the way that Gazprom acquires 25% stake with intention to increase it to 55%, but that Shell keep 25% and the two Japanese companies 10% each. It remained to agree upon the price Gazprom was to pay (Note 19).

There is no doubt, the consolidation of Russia's oil and gas business continues. Russian companies are not short of money as it was the case at the beginning of the 1990s. The times when exploration and development concessions were offered to foreign investors at low cost, have passed. The time of privatization of Russian companies, soaked in alcohol, has also vanished.

However, growing domestic demand for oil products and gas, in combination with low price policy, raise some doubts about Russia's capability of meeting growing Europe's demand.

The West considers that Russia needs far bigger investments in exploration and development than the resources available to Russian companies. Those well acquainted with the situation in Russia think that they also need advanced technologies and expertise.

Recent slump in global oil prices, their possible stabilization at US$ 80, might force Russia to reconsider its relation toward foreign capital and investors. According to some sources, in 2009 the Russia's investments in energy projects could reach US$ 40 billion. But it is only half of foreign investments in 2007 when they amounted to US$ 82 billion.

Croatian daily papers list of 18 October 2008 wrote about losses incurred by Russian oligarches caused by economic crises and about the Russian Government's intention to implement a series of measures and aid of US$ 220 billion to provide support for equity market, banks and oil companies.

One of expected measures in crises situation is suspension, or at least reduction of planned investments. Considering restrictive policy toward foreign investors and their participation in oil and gas projects, the vital interest of Russia – export of oil and gas – might be endangered and the state deprived of valuable export revenue.

4. CONCLUSION

When we talk about Russia's production potentials, particularly in case of oil, there are some dilemmas and controversies. On 13 May 2008, Poslovni dnevnik (page 22) quoted an article published in The Economist:

- in the last 7 years Russia's contribution to oil production outside OPEC countries was 80%,
- in the last 4 months (1Q08) oil production was 2% lower than peak production of 9.9 million bbl/d. Mr. Leonid Fedun, vice president of Lukoil, recently commented that output will never more surpass 10 million bbl/d.
- Russia's reserves are estimated at 80 billion bbl with projections of additional 100 billion bbl that could be discovered. Of course, a precondition for that is high oil prices and revenues enabling investments, but also economic and tax policy to be implemented. However, when 50% of state budget depends on oil and gas, it is hard to believe that the state would deprive of revenues in order attract investors in oil business.

Until 2007 the OPEC countries reached the share of 42% of total daily oil production, while their share in world export is 50%. On top of revolutionary regimes in some countries, particularly in South America, or Islamic fundamentalism, use of oil as leverage, makes importing countries uneasy.

European Union and the USA revise their energy strategies and formulate new strategic directions by reducing dependence on imported oil and gas, and rely more on renewable energy sources, construction of large number of LNG terminals, including a new wave of interest for nuclear plants.

In 2000 the structure of European energy consumption was the following:

- Oil 41%
- Natural gas 22%
- Coal 16%
- Nuclear 15%
- Renewable 6%

[19] BP was under similar pressure in developing the natural gas projects in Siberia.

[20] EU tends to improve the level of energy security by strengthening cooperation between producers and consumers, Croatian magazine Plin (Gas), June 2006, pages 19 - 23 (according to article from Oil & Gas Journal, October 10th, 2005)

In 2030 EU will have only 10% of indigenous production of oil and 20% of natural gas. Having in mind this possible scenario, the EU Energy Charter was devised in the 1990s, together with the Energy Charter Treaty, with the purpose to regulate Euro-Asian cooperation between energy hungry Europe and rich Asia, particularly Russia, which on the other hand, was short of capital for financing oil and gas projects at the time of Energy Treaty formulation (Note 20). In 1994 the Energy Charter was signed, but Russia has not ratified it until today. Probably it will not ratify it at all.

In the end:

- At the beginning of June 2008 Russia increased export duty for crude oil for the seventh time. This was at the time when international prices were the highest ever. However, as crude oil prices slumped in autumn 2008, Ministry of Finance started to slash export duty. This move was welcomed by exporters because with high export duties and falling prices they have problems with covering their operational costs.
- In spring 2008 several media, popular and professional, published articles about Russia's declining production. During the 1Q08 there was a 1% drop in Russia's oil production. This is the first decline after 1998 when upward trend started and from the level of 6.2 million bbl/d, production rose to the current 9.76 million bbl/d.[11]
- In May 2008, one of Lukoil's top managers (Leonid Fedun) told Financial Times that Russian oil production reached its peak and that new growth cannot be expected without additional investments in exploration and development.
- Anatoliy Chubais, the architect of Russian privatization in the 1990s, said (as quoted by Croatian daily paper Vjesnik, most probably quotation from Financial Times) that Russia's strategic orientation should not be export of energy to Europe and China. It particularly referred to natural gas exports. The subtitle was. „Instead of feeding energy hungry Europe and China", our priority should be securing sufficient resources for the domestic market. He also mentioned that domestic demand recorded significant growth.

Hence, future growth of energy supplies from Russia should be carefully planned. While stagnating production might be taken as a transitional midterm problem, partly caused by rather hostile attitude toward foreign investors, growing domestic demand is a long-term phenomena and no government can neglect it.

In any case, Russia, with its huge oil and gas reserves and connecting pipelines is Europe's natural partner, and it will remain so in the future. Europe will pursue its energy strategy based on security of supply, which assumes diversification of sources of supply and transit routes, and maintaining individual source of supply below monopoly level.

Russia will have to accept the fact that exclusiveness in politics, in this case in energy policy, is not a good solution. Imposing barriers to foreign investments in exploration and development operations in Russia on one ide, and Europe's restrictions for Russian companies entering European market, will lead to a stalemate position.

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