



## The Brookings Foreign Policy Studies Energy Security Series

# The Russian Federation

The Brookings Institution

October 2006

### The Energy Security Series

The rise of China and India as major global economic powers, the continued growth in U.S. energy demand, and instability in key oil-exporting regions are dramatically affecting international energy markets. Prospects for stable production are increasingly linked to internal political issues and the regional ambitions of major suppliers. These dynamics will affect the global balance of power, as energy security is becoming a more important factor in countries' national security and economic development calculations.

The Brookings Foreign Policy Studies Energy Security Series is examining four key energy-consuming nations—China, India, Japan, and the United States—and several major producing countries—Russia to start, and then the Gulf States and others as resources become available. The Series will analyze the implications of these nations' policies for the global energy security environment. Initial funding under this project has supported a set of baseline papers focused on oil. Future analyses on this topic will cover the full spectrum of energy security issues.

This report, a study of the policies and realities of energy powerhouse Russia, is drawn from research done in 2006 by Brookings Senior Fellows Clifford Gaddy and Fiona Hill, Senior Research Assistant Igor Danchenko, and Research Analyst Dmitry Ivanov.

## EXECUTIVE SUMMARY

### Change of Fortune

Energy is at the heart of Russia's remarkable change of fortune over the past seven years. Emerging from a state of virtual bankruptcy in August 1998, the country now enjoys large surpluses, has inverted its debt burden with the outside world, and has racked up successive years of economic growth and low inflation. This dramatic turnaround is directly related to Russia's status as the world's largest producer of oil and natural gas—the country has benefited tremendously from soaring prices on the world market.

With this newfound economic strength, Russia has also regained a sense of sovereignty. No longer content to play second fiddle to the West or China, it is reasserting itself as a major global player and reversing the international humiliations of the 1990s. In charting an independent foreign policy course, Russia is exerting dominance over the former Soviet republics of Eurasia (its so-called “near-abroad”). And it is trying to leverage self-proclaimed status as an “energy superpower” with other oil and gas consuming nations in Europe and further afield.

### A Vulnerable “Energy Superpower”

Behind the scenes, however, Russia's entire political and economic system is extremely tenuous. Rather than rebuilding the economy through judicious policymaking and modernization, Russia has balanced its future on the twin pillars of oil and gas, which are vulnerable to the vagaries of the global market. The country's success depends on high energy prices and the ability to sustain production—both of which are in question.

This monograph examines Russia's historical dependence on oil and gas production and the intricate system of distributing windfall profits (“rent sharing”) that underpins its economy. A full accounting of rent distribution includes not only the traditional mechanisms like budgetary expenditures and corporate profits, but also substantial informal flows through the entire economy—from price subsidies to

Russia's concept of energy security differs from and may even conflict with that of Western consuming nations.

inflated costs of production to bribes and various off-budget “contributions” by businesses to local and national government officials.

This paper considers how Russia's concept of energy security differs from and may even conflict with that of Western consuming nations. And it weighs the implications of Russia's official and unofficial energy strategies, which many consider outdated. A number of key observations result:

- Russia will remain a major energy player on the global market for the foreseeable future.
- Although Russia is often compared to Saudi Arabia, and indeed its energy output is almost equal to it, Russia has virtually no spare export capacity. Therefore, Russia lacks the leverage over world oil markets that Saudi Arabia is perceived to have. The situation is markedly different in natural gas, where Russia is attempting to gain leverage over European gas markets through partnerships with its gas-rich neighbors Turkmenistan and Kazakhstan.
- Russia's concept of energy security differs from that of the leading Western consuming nations. For the latter, energy security implies dependable energy supply from multiple independent sources at fair and preferably low prices. For Russia, energy security means security of demand by foreign customers at fair and preferably high prices. Russia is trying to reconcile these differing approaches to energy security and to gain greater access to foreign markets.
- Russia's economic dependence on both oil and gas revenues is substantial and unlikely to decrease in the near future. If energy prices fall or even remain flat, Russia's economic growth will slow considerably.
- Russian policymakers' attention to the resource sector is dominated by issues of rent redistribution (divvying up the bounty), which is hindering the resolution of urgent resource sector problems like reserve replacement.
- The country's energy security concept is not focused solely on oil and gas, although these twin commodities are its pillars. Russia is in the process of formulating and implementing several initiatives for nuclear, coal, and hydropower energy generation as well as for energy transportation infrastructure. If successful, these initiatives may free up additional oil and gas export capacity for Russia and decrease its dependency on energy transit through eastern Europe.
- Russia's energy strategy is based on an obsolete document—“Russia's Energy Strategy until 2020.” Russia is unlikely to undertake major energy initiatives at home and abroad until it evaluates the results of the G-8 summit. In the near future, Russia will continue to try to use its energy leverage for political and economic gains in Europe and Eurasia.

The Brookings Institution is a private nonprofit organization devoted to independent research and innovative policy solutions. Celebrating its 90th anniversary in 2006, Brookings analyzes current and emerging issues and produces new ideas that matter—for the nation and the world. For policymakers and the media, Brookings scholars provide the highest quality research, policy recommendations, and analysis on the full range of public policy issues.



1775 Massachusetts Ave., NW  
Washington, DC 20036  
[www.brookings.edu](http://www.brookings.edu)

# The Brookings Foreign Policy Studies Energy Security Series The Russian Federation

## Contents

Executive Summary .....	1
Introduction .....	4
Twin Pillars: Oil and Gas .....	5
An Energy-Based Economy .....	6
Rent Sharing .....	7
The Size of Rents .....	10
Oil and Gas for the World .....	12
New Regional Energy Players .....	14
Sustainability of Supply .....	16
Fighting over the Spoils .....	17
The Subsoil Law .....	20
Official Energy Strategy .....	21
Putin's Views .....	23
Russia as an "Energy Superpower" .....	25
Dissenting Voices .....	27
Russia's Energy Security Agenda and "Security of Demand" .....	28
Conclusions .....	29
Notes .....	30

## Figures

Figure 1. U.S. and Soviet Oil Output, 1945–1990 .....	5
Figure 2. Russia's GDP and Crude Oil Export Revenue Dynamics, 1997–2005 .....	6
Figure 3. Quarterly Changes in Crude Oil Export Revenues and GDP, 1997–2006 .....	6
Figure 4. Rent Sharing .....	8
Figure 5. Russian Production of Railway Tank Cars, 1960–2005 .....	9
Figure 6. Russian Oil & Gas Rents, 1970–2006 .....	10
Figure 7. Russian Oil and Gas Output, 1945–2005 .....	11
Figure 8. Russian Oil Output: Growth Rates, 1960–2005 .....	16

## Maps

Map 1. Russia's Oil Export Pipelines: Major Bottlenecks .....	14
Map 2. Central Asian Oil and Gas Pipelines .....	15
Map 3. Russia's Eastern Pipelines .....	15



---

Energy is at  
the heart of  
Russia's economic  
performance  
and renewed  
confidence on  
the global scene.

---

## Introduction

In the past seven years, Russia has experienced a remarkable change of fortune. Following economic and political crises in the 1990s—culminating in a state of virtual bankruptcy in August 1998—Russia has racked up successive years of economic growth and low inflation. Since 1999 its economy has been growing strongly and consistently. In the 1990s the Russian government regularly ran massive budget deficits. Today, it is accumulating even larger surpluses. Similarly, its balance with the outside world has reversed. A decade ago Russia was deep in debt to foreign lenders, including the International Monetary Fund (IMF), and nearly devoid of foreign currency of its own. Today, the country has no IMF debt and its trade balance and foreign exchange reserves are among the largest in the world.

Thanks in large part to this economic performance, Russia now has a sense of regained sovereignty. It is reasserting itself as one of the major global players and reversing the international humiliations and indignities of the 1990s. It is no longer content to play second fiddle to the United States or the West. Instead Russia is charting an independent foreign policy course, underscoring its economic and political dominance of the former Soviet republics of Eurasia—what it calls its “near abroad”—and demanding acknowledgement of its “rightful place in the world” as an equal to major players like the United States and China.

Energy is at the heart of Russia's economic performance and renewed confidence on the global scene. As the world's largest producer of both oil and natural gas, Russia has benefited as few other countries from the soaring prices of those commodities on the world market. While energy reserves are the source of the country's economic revival, they are also a potential weakness. Behind the scenes, Russia's entire economic and political system is highly susceptible to the vagaries of the global oil and energy markets. Russia's economic success is not so much the result of modernization and economic breakthroughs, or sound policymaking and judicious management, as it is the dynamics of the global economy, over which the Russian government has no control. Its current foreign policy posture is equally vulnerable. Russia describes itself as an “energy superpower,” a notion predicated on an effort to leverage its perceived advantages in oil and gas production and exports to seemingly vulnerable consumer countries (both large and small). Yet the proposition that energy gives Russia great power is questionable. Russia does not have market power in oil. It cannot dictate prices or quantities to consumers. The situation is admittedly different for gas on both counts. But for both commodities, Russia's ability to continue supplying at current rates is in question.

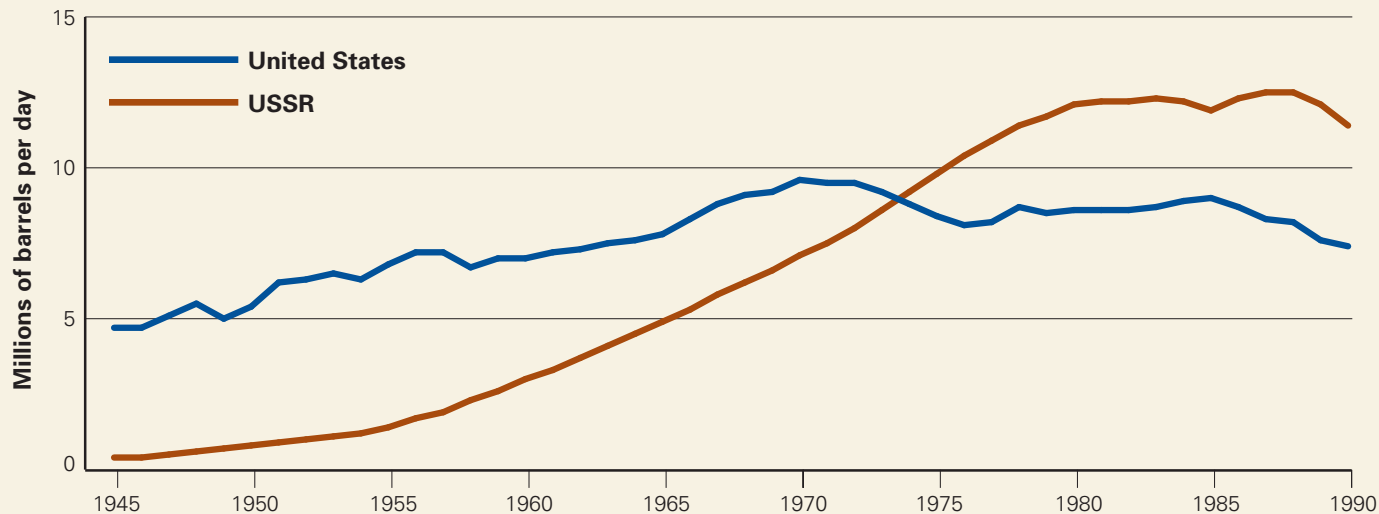
In the end, Russia's strength is garnered not from energy production, but rather from the wealth generated by windfall profits from high energy prices. While these profits are huge, they are also tenuous. They depend on continued high, and even rising, prices. And they depend on Russia's ability to sustain its production of oil and gas. Both the price of energy and the quantity of production are in question.

## Twin Pillars: Oil and Gas

Oil and gas are the twin pillars of the Russian economy. Russia currently rivals Saudi Arabia as the world's largest producer and exporter of oil. It is the indisputable leader in gas production and exports. Russia's fortunes and fate have long been tied to oil and gas. Its history as an oil exporter began in the late nineteenth century, when early oil operations began in Baku and the western Caspian, then part of the Russian Empire. Oil began to play an especially important role in Russia's development in the 1960s, when major fields were discovered in western Siberia, and both production and exports shot up. Increased oil production became yet another measure of national accomplishment and a source of pride and prestige. In the 1970s Soviet oil output surpassed that of the United States—bolstering the impression that the Soviet Union was a rising power and the United States a nation in decline (fig. 1).

By the mid-1970s both oil and gas had become vital to the Soviet Union's domestic and foreign policies. Oil, which had always been a key raw material for military purposes, began to be used increasingly as an instrument of so-called soft power, especially in Eastern Europe. The Soviet Union deliberately created dependency on its oil by forcing its Eastern European satellites to transform their heavy industries to run on oil (instead of, for example, abundant coal in the case of Poland), then supplying Soviet oil almost free of cost. The value of that subsidy skyrocketed as world oil prices rose sharply in the mid-1970s. Once the dependency had been created, any reduction in supply threatened the stability of the regimes. Hence the Soviets had no choice but to keep producing more and more oil to supply them. In effect, both the satellites and the Soviet Union itself were addicted to oil. The addiction was bequeathed to post-Soviet Russia. Today, Russia is dependent on the value represented by its abundant oil and gas resources. The distribution of that value throughout the Russian economy is key to understanding its entire political economy.

**Figure 1. U.S. and Soviet Oil Output, 1945–1990**

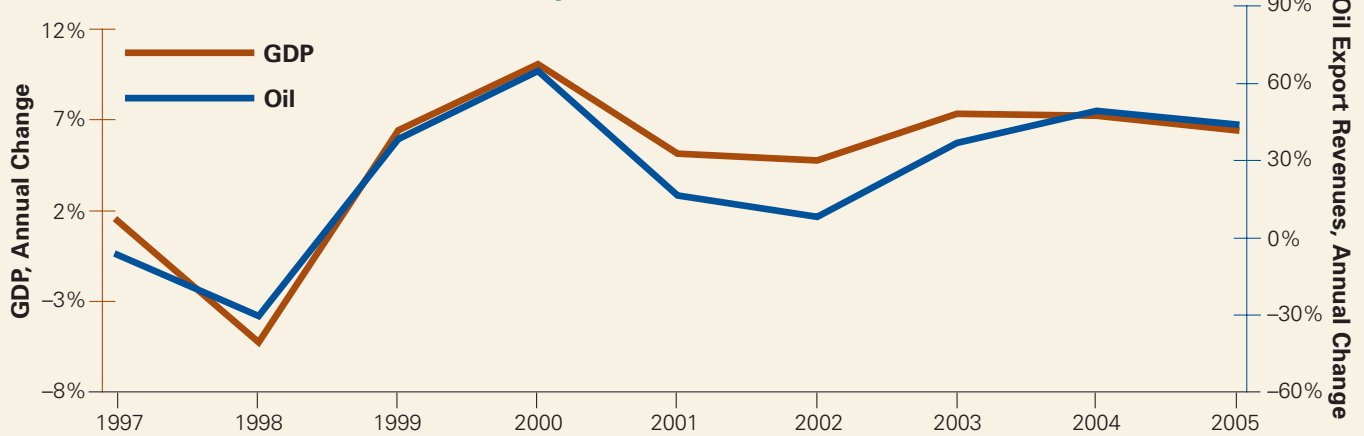


Source: Clifford G. Gaddy, The Brookings Institution, 2006

## An Energy-Based Economy

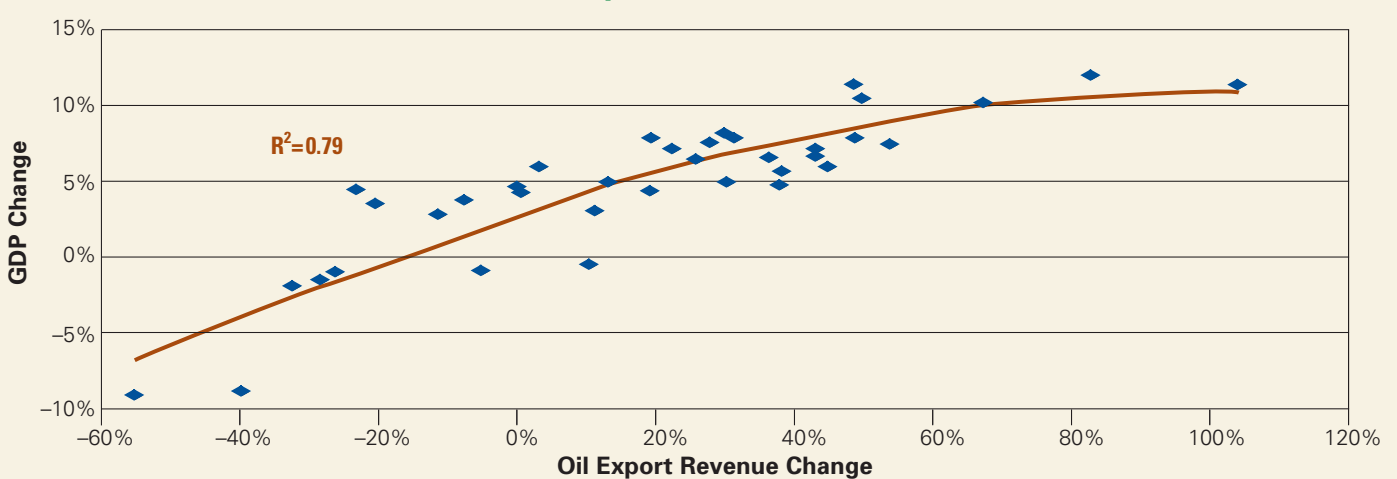
An examination of Russia's exports of oil and gas gives a first look at the importance of these energy resources for the economy. Oil and gas alone accounted for 63 percent of total exports in 2005 and represented 37 percent of state budget revenues. Thanks to the increased prices for these commodities on world markets, hundreds of billions of extra dollars have flowed through the Russian economy since 1999, available to be collected directly into the treasury or deployed in other ways. The simple correlation between Russia's annual gross domestic product (GDP) growth and the growth of its crude oil export revenues suggests how important oil has been in the past decade (fig. 2). This relationship shows up even when both data series are broken down by quarters (fig. 3).

**Figure 2. Russia's GDP and Crude Oil Export Revenue Dynamics, 1997–2005**



Source: Clifford G. Gaddy, The Brookings Institution, 2006

**Figure 3. Quarterly Changes in Crude Oil Export Revenues and GDP,<sup>a</sup> 1997–2006**



a. Year-on-year changes. Data through first quarter 2006.

Source: Clifford G. Gaddy, The Brookings Institution, 2006

The difference oil has made for Vladimir Putin compared to Boris Yeltsin is illustrated by the following figures. In the four quarters immediately prior to Putin's assumption of the office of prime minister in late summer 1999,<sup>1</sup> Russia's earnings from oil exports were less than \$14 billion. In the most recent four quarters (July 2005–June 2006), that figure rose to nearly \$140 billion.<sup>2</sup> This has allowed Putin's government—in stark contrast to that of Boris Yeltsin—to fill its coffers, pay down state debt, and build up foreign exchange reserves.

The shift that has occurred during Putin's tenure has been monumental. On October 1, 1999, Russia's foreign exchange reserves had fallen to their nadir at \$6.6 billion, while the country owed the IMF alone a total of \$16.8 billion. Today, Russia has foreign exchange reserves in excess of \$250 billion and holds an additional \$80 billion in its oil stabilization fund. Russia has no debt to the IMF. The IMF, by comparison, has only \$223 billion in lendable funds.

<b>The Russian Economy on the Rebound</b>	
<b>1999–2005</b>	Seven years of economic growth (average 6.7 percent).
<b>2000–2005</b>	Six consecutive years of budget surplus (currently in the range of 7-8 percent of GDP).
<b>Since 2003</b>	Russian consumer market consistently ranked number one by international retailers.
<b>January 31, 2005</b>	Russia pays off \$3.3 billion IMF debt three and one-half years ahead of schedule and is in the process of paying off and restructuring its other foreign debts through money accumulated in its stabilization fund, which captures windfall oil profits.
<b>October 2005</b>	Moody's raises Russia's credit rating to "investment" grade, and Standard and Poor's sovereign investment rating was "BBB–."
<b>2005</b>	Russian companies attracted \$40.1 billion in loans from foreign banks, more than any other country and double Chinese borrowing. <sup>3</sup>
<b>August 2006</b>	Russia's foreign currency reserves are as large as Taiwan's or South Korea's. <sup>4</sup>

## Rent Sharing

The correlations shown in figures 2 and 3 are highly suggestive, but they are in fact too narrow. The importance of oil and gas to Russia is about more than just export revenues. The Russian economy depends not merely on exports, but on the total value of all oil and gas produced. It is that total value that is distributed to various claimants throughout all sectors of society and the economy. Understanding the mechanisms and motives for the sharing of the value represented by Russia's oil and gas is key to understanding the country's political economy.<sup>5</sup>



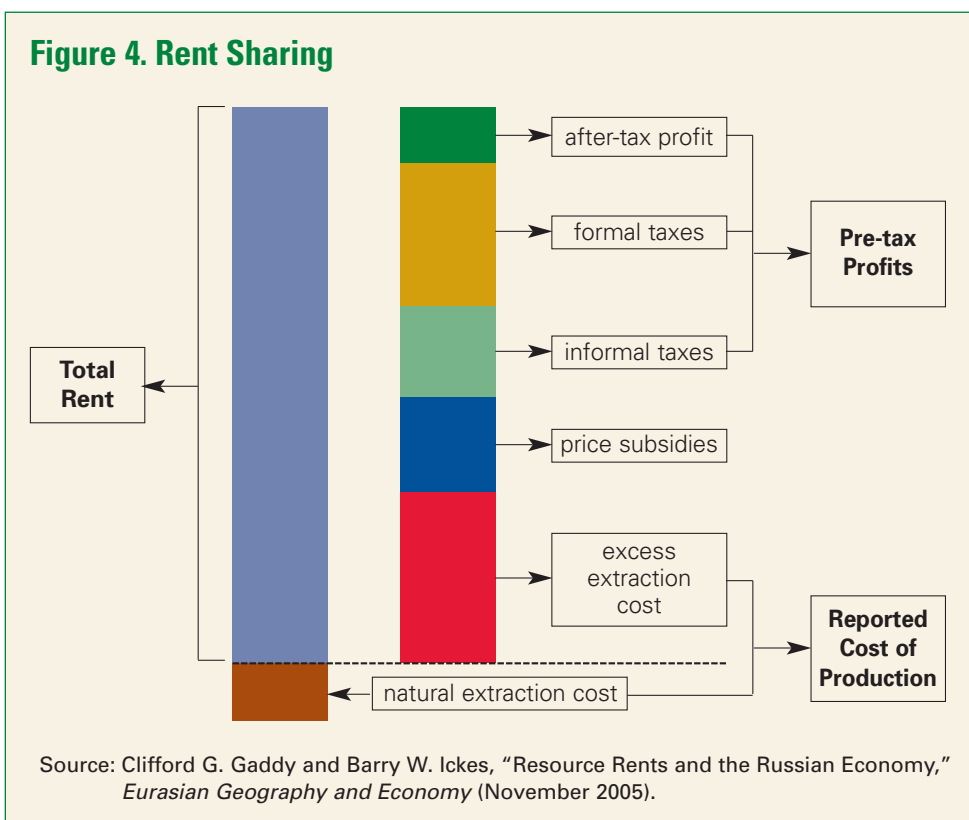
The informal categories of rent-sharing—informal taxes, price subsidies, and excess production costs—are particularly important in Russia.

Since 1999 Russia has seen the market price of its oil and gas soar far above what could be deemed its natural price, that is, the cost of producing the commodity under competitive conditions (including a normal rate of return on the capital employed). In economists' jargon the value of the resource in excess of that natural price is rent. In common language it is windfall profit. Some of that windfall is retained by owners as additional profits. A large part is collected by the state in the form of taxes, duties, and fees. But much of the windfall escapes formal collection and is distributed informally. For instance, if oil or gas is sold to domestic or overseas consumers at a price lower than the prevailing market price—in other words, if it is sold at a subsidized price—the subsidy is a portion of the rent that is being shared with consumers. Rents can be shared on the production side as well. If the costs of extracting and transporting the oil and gas are inflated beyond what would be normal in a competitive market, the excess costs are part of the rent. A mechanism for rent sharing that is particularly important in Russia is the so-called informal tax. While formal taxes are those prescribed by law, informal taxes include payments by producers in the form of bribes or contributions to various auxiliary funds and projects that benefit local officials directly or indirectly. Figure 4 is a stylized version of the decomposition of oil and gas rents in Russia into these various categories. Each category has its claimants. Each, therefore, represents vested interests.

The informal categories of rent-sharing—informal taxes, price subsidies, and excess production costs—are particularly important in Russia. Like the part of the iceberg that lies beneath the surface, they may be most important in assessing current and future economic and political developments.

To take one example, one frequently hears statements to the effect that a decline in oil prices would have little impact on the Russian economy. The government's oil stabilization fund, it is said, absorbs the windfall. The core budget is sustainable at much lower oil prices. But this line of thinking is based on looking only at the formal part of rents. In fact, the formal taxes and the formal budget are only a piece of the picture. Informal rent-sharing sustains a much broader part of the economy and society. Lower oil prices mean smaller overall rents, and thus less to be shared among all the categories—not just the part represented by formal taxes.

Excess costs of production deserve special attention. An increasing number of old and new industries depend

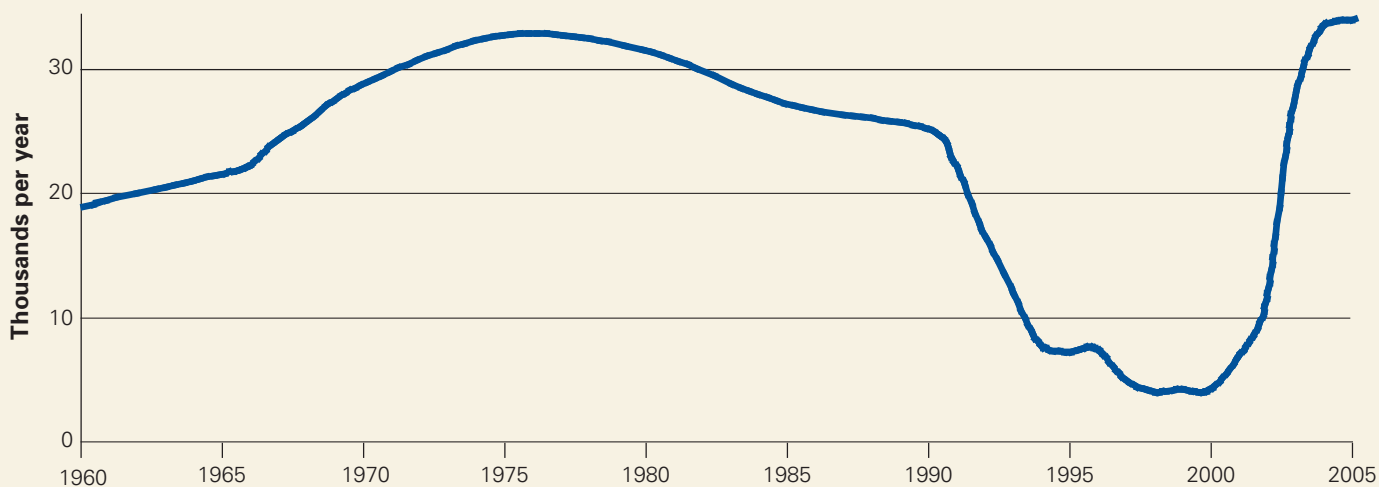




on growth of the oil sector. This is most visible in industries that manufacture for the energy transportation sector. Demand for pipelines, storage tanks, river and sea tankers, rail tank cars, and equipment like submersible pumps, onshore and offshore drilling rigs and platforms has soared. This phenomenon is not only a natural product of oil and gas production growth. It is one of the implicit results of Russia's oil and gas rent-sharing schemes in times of high commodity prices.

Rail tanker car manufacturing is one clear example of how the oil and gas rents are shared with other sectors. Shipping oil by rail is several times more expensive than by pipeline. The excess costs of shipping by rail are a burden to the economy as a whole. But they suit the interests of many old, established Russian manufacturers, like Uralvagonzavod—a prominent Soviet-era tank manufacturer in the Russian city of Nizhniy Tagil that also produces railway tank cars. This company is now growing rapidly as a result of the costly decision to ship oil by rail. In 2005 Russian railway tank car production was higher than during the Soviet period (fig. 5).

**Figure 5. Russian Production of Railway Tank Cars,<sup>a</sup> 1960–2005**



a. Data for tanker cars produced on the territory of the present-day Russian Federation.  
Source: Clifford G. Gaddy, The Brookings Institution, 2006

Similarly, among the big beneficiaries of increased natural gas production and exports are manufacturers of pipes. Russian domestic large-diameter pipe manufacturing has recently benefited from the growing demand for construction of new export pipelines and from a new government priority to ensure self-sufficiency and domestic capacity in key materials production for the energy sector. As late as 2004, Russia purchased Japanese and German pipes for the construction of its Blue Stream gas pipeline under the Black Sea to Turkey, as the USSR—even during the years of high oil prices in the 1970s—had lacked the necessary technology and capacity for large-diameter pipe production.<sup>6</sup> Russia is now beginning to use domestically manufactured large-diameter pipes in the construction of its new North European gas pipeline under the Baltic Sea from Russia to Germany (which began in early 2006 and should be fully operational by 2010). The project operator, Gazprom, has

launched a major import substitution program to support domestic pipe manufacturers, which has had results across all stages of production.

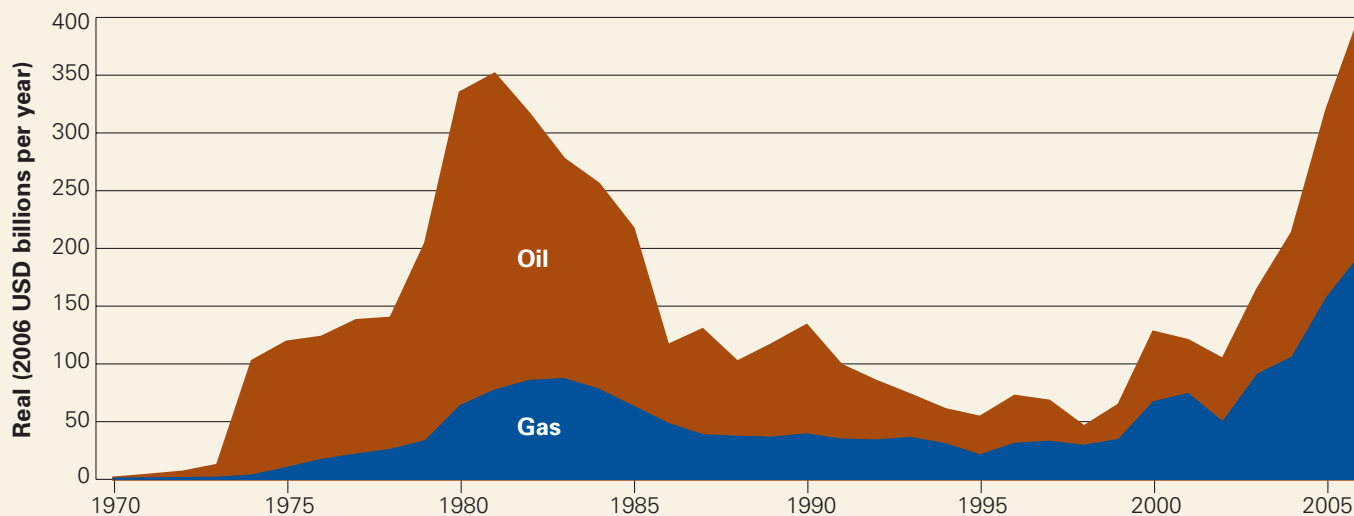
Russia could easily continue to purchase large-diameter pipes abroad and allow loss-making enterprises to go bankrupt. It could also modernize its industry away from manufacturing exclusively for the oil and gas sector—especially as demand for high volumes of large-diameter pipes will inevitably decline once all the major pipeline projects have been completed. But pipe manufacturing is just one of the many cases in which energy exports have been used to create new production lines for old industries through partnership agreements between Russia’s energy companies and its manufacturing sector.<sup>7</sup>

The Russian government has enabled the distribution of rents among a great number of actors, extended the operation of otherwise obsolete large-scale Soviet-era manufacturing complexes, facilitated their limited modernization, and helped to ease unemployment by maintaining many workers in these industries. As a result, while in some resource-abundant countries “Dutch disease” pulls investment away from other key sectors, the Russian rent deployment system means that Russia has something of a different disease. Parts of Russia’s manufacturing industry benefit substantially from demand from the energy sector when oil production and exports increase, although oil industry costs are also increased considerably.

## The Size of Rents

Like the production of oil and gas, the generation and deployment of rents have a long historical legacy in Russia. A snapshot of the evolution of rents from oil and gas production from the 1970s to the present is enlightening (fig. 6). At their peak, in the early 1980s, rents were 40 percent as large as GDP. They are rapidly approaching that level today.

**Figure 6. Russian Oil & Gas Rents,<sup>a</sup> 1970–2006<sup>b</sup>**



a. Based on volumes of oil and gas produced on the territory of the present-day Russian Federation.

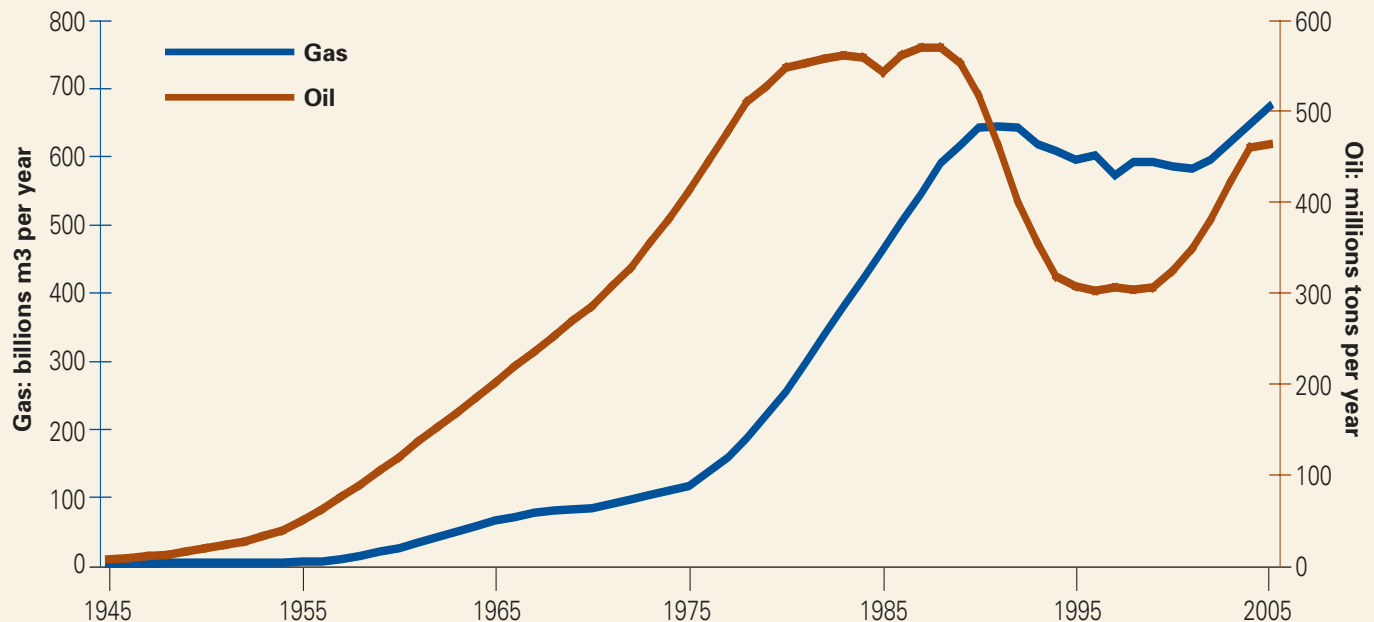
b. Values for 2006 are estimates based on trends in the first six months.

Source: Clifford G. Gaddy, The Brookings Institution, 2006

But equally striking is their volatility; they have ranged from a high of \$400 billion (in 2006 dollars) to a low of less than \$50 billion. Gas has grown in importance since the 1980s and now accounts for half of total rents.

While not directly evident from the chart, the underlying data clearly demonstrate that fluctuations in the price of oil dominate all other factors. The price effect allowed the Soviet Union to benefit tremendously during the period of peak prices between 1973 and 1981. But the country also suffered in the long period of low prices that lasted from 1982 until 1999. On top of the price collapse, volumes also plunged. In 1988, before its collapse, the Soviet Union was producing a record 12.5 million barrels of oil a day (mbd) with most of the output originating in Russia. By the mid-1990s output had fallen to half those levels (fig. 7). The combination of price and volume decline translated into a disastrous collapse in total rents.

**Figure 7. Russian Oil and Gas Output,<sup>a</sup> 1945–2005**



Note: Data for oil and gas produced on the territory of the present-day Russian Federation.  
Source: Clifford G. Gaddy, The Brookings Institution, 2006

The current rapid rise in rents is due primarily to the new price boom that began in 2000. In 1999 the price of Urals oil fell below \$10 a barrel; it is now over \$70 a barrel. But there has been a significant quantity effect as well. Russia's output collapse was halted and eventually reversed. Production rose from 301 million tons per year (mty) or 6.0 mbd in 1996 to about 470 mty (9.4 mbd) in 2005.<sup>8</sup> Virtually every drop of that increase was put onto the world market.<sup>9</sup>

Russia's gas production history resembles that of oil, but with far less volatility and different timing. Gas output did not begin to stagnate until around 1990, and it never underwent

the same precipitous fall as oil. It continued to sustain the Soviet economy as oil declined. Gas has also been a much more stable export commodity for Russia than oil has been over the last several decades. As a result, gas exports have tended to generate more reliable long-term hard currency receipts.

Russia's remarkable recent oil output growth has been driven by increased world demand. But factors making it possible for Russia to respond to that demand have figured equally. At the end of the 1990s, Russia was able to supply large amounts of oil to the global market (and thereby cash in on soaring world prices) thanks to fortuitous circumstances connected to the country's peculiar past. First, it had inherited an intensively developed and debt-free oil and gas production infrastructure from the Soviet Union. Second, owing to the dysfunction of the Soviet economy in the 1980s, large amounts of so-called "old oil"—from fields developed in the Soviet era—were bypassed and left in supposedly "ruined wells." Because of the general chaos of the post-Soviet economy in the 1990s, nearly all the bypassed oil remained untouched. Meanwhile, under the regime of Boris Yeltsin, the oil industry was being reorganized. A series of private companies were created, which attracted new investments and facilitated the application of advanced oil recovery technologies capable of lifting the old oil.

In short, both of the factors determining oil's total rent—price commanded and quantity produced—have been a true windfall for the current Russian leadership.

## Oil and Gas for the World

As indicated earlier, almost all of Russia's increased oil output has been shipped abroad. Accordingly, Russia's significance in the world energy market has grown since 2000. From 2000 to 2005, Russia's increased oil output and export contributed substantially more to meeting global demand than added volumes by the OPEC countries. Russia helped offset global demand growth by up to 50 percent. Since 1999–2000 Russia has been the major non-OPEC oil supplier, rivaling Saudi Arabia in terms of production and exports. It remains one of the most attractive investment destinations for international oil companies as the single major energy producer with still-untapped reserves that have not been put completely off-limits to foreign investors.

Oil remains more important to Russia's economy than gas—especially in developing energy relations with Asian countries like China and Japan. But gas exports largely determine Russia's energy relations with Europe, where gas is preferred as a cleaner and cheaper source of energy than oil. Europe's demand for natural gas is expected to grow 60 percent by 2030.<sup>10</sup> EU energy policy envisages shifting as much as possible from oil to gas through 2020. The policy is also driven by the fact that nearly three quarters of total world gas supplies are close to EU borders in adjacent regions of Russia, Central Asia, and the Middle East. By 2030, as production in Europe's offshore gas fields in the North Sea wanes, the EU will be 80 percent dependent on imports of natural gas.

---

Oil and gas exports  
together make  
Russia the energy  
hub of Europe.

---

Russian gas exports have already helped limit the emerging supply and demand gap in Europe. Russia is tied to the European energy grid by several major pipelines, some of which have been in operation for more than twenty-five years. New gas pipelines are being constructed, while the older ones are being refurbished and expanded. European gas companies have long-term contracts with Russia for periods extending between 2008 and 2030. Russia's gas monopoly, Gazprom, has become a pivotal player in European energy markets. Gazprom already has made significant inroads in downstream German markets via cooperation deals and the swap of upstream for downstream assets with German companies BASF and Wintershall (April 2006).

Germany has been Russia's closest Western energy partner since the 1970s. These recent deals were signed as a result of intense diplomacy and the personal efforts of President Putin, as well as the top management of Gazprom. Former German chancellor Gerhard Schroeder as well as a number of German banks and enterprises also played a critical role. In a controversial move, on December 9, 2005, Schroeder assumed chairmanship of the North European Gas Pipeline Company, the new Russian-German joint venture constructing a pipeline under the Baltic Sea. Schroeder had approved this critical energy project while head of the German government. His decision to accept Russia's offer to lead the company sparked a great deal of public criticism at home and abroad.<sup>11</sup>

Oil and gas exports together make Russia the energy hub of Europe. Russia has identified a number of key consumer and transit states in its regional energy strategy. Turkey and Germany have developed into energy gateways to Europe for Russian oil and gas. And Turkey has become one of Russia's biggest trade partners, with gas constituting some three quarters of Russia's total exports to Turkey. The Blue Stream pipeline across the Black Sea became fully operational in spring 2006. Gazprom and the Turkish gas company, Botaf, are planning to expand their cooperation—first, by constructing underground gas storage facilities on Turkish territory, and second, by expanding Turkey's gas pipeline infrastructure to Israel and Greece. Russia has also proposed the construction of a second Blue Stream pipeline to increase gas exports through Turkey even further. It is also seeking an equity share in the planned Turkey-Greece-Italy gas pipeline connector to southern Europe by making major downstream investments in Turkey.

As its strategy in Turkey illustrates, Russia targets direct connector countries to European markets—which are themselves major, wealthy consumers of Russian energy—over more troublesome former satellites, for example, Ukraine. In 2000 Russia launched a new strategy for the diversification of its energy export routes to Europe with the aim of minimizing the number of transit states.

Progress is less visible in oil export diversification than in gas. Although a number of half-measure projects have been implemented, Russia's oil export structure has remained largely unchanged for decades. And there are as yet no export pipelines for Russia's growing new energy markets in Asia.

## Map 1. Russia's Oil Export Pipelines: Major Bottlenecks



- a. Shallow waters, icing, Danish straits' marine traffic limitations
- b. Limited continental market with unfavorable pricing environment
- c. Bosphorus traffic limitations

Source: Institute of Energy Policy

Completed new oil export projects include the Caspian Pipeline Consortium (CPC), an oil pipeline constructed in the 1990s from Kazakhstan and Russia to the Russian Black Sea port of Novorossiysk, and the Baltic Pipeline System (BPS) from central Russia to terminals on the Baltic Sea. Russia's oil pipeline export capacity remains largely constrained by bottlenecks in the Danish-Baltic and Turkish-Black Sea Straits and by the absence of alternative export routes (map 1). Proposed Russian oil pipelines to deepwater ports in the Far East and the Arctic, envisioned as a means to expand beyond traditional continental European markets, are still in various stages of negotiations and technical design. Final locations for oil terminals in both regions have not yet been determined.

## New Regional Energy Players

An important factor in Russia's energy export strategies has been the role of the other four former Soviet republics that inherited oil and gas resources after the breakup of the USSR. Apart from Russia, the major new regional energy players in oil are Kazakhstan

and Azerbaijan. Kazakh oil production has grown steadily since the discovery of the giant Tengiz oilfield in the early 1990s. Azerbaijan's oilfields off the Apsheron Peninsula in the Caspian Sea began delivery of oil through the new Baku-Tbilisi-Ceyhan export pipeline in May 2006. Azerbaijan, along with Turkmenistan and Uzbekistan, also has substantial natural gas deposits. Both Central Asian states depend on Russian infrastructure for their gas exports, while Azerbaijan is constructing a gas pipeline along part of its oil export line route. With growing competition for access to regional energy resources from China, Europe, and the United States, Russian state and private companies have begun to expand their influence in the Caspian Basin and Central Asia—especially since 2000—by acquiring rights to new deposits and through negotiating individual production and export projects.

China is increasingly active in concluding energy deals with its resource-rich neighbors across Eurasia, especially in Central Asia. But Russian energy also remains a priority focus for China. In 2005 Sino-Russian trade reached 20 billion dollars, with the bulk of Russia's exports to China comprising oil and unprocessed timber, as well as arms. The Russian government, however, is reluctant to allow Chinese national oil companies a significant operational foothold in Russia, and energy cooperation has been limited to oil sales and exports from western Siberia to China through eastern Siberia. In 2006 new prospects for Chinese cooperation with Russia have emerged in the oil- and gas-rich Sakhalin Island off Russia's Pacific coast, where China's state-owned Sinopec has been intensifying its cooperation with Rosneft since 2005.<sup>12</sup>



## Map 2. Central Asian Oil and Gas Pipelines



Source: Energy Information Agency (EIA)

## Map 3. Russia's Eastern Pipelines



Source: www.transneft.ru

Russia currently sends oil to China only by rail, and will continue these rail shipments for the foreseeable future. Russian oil will not reach China by pipeline until after 2008, and then only if Russia and Kazakhstan agree to ship it through the new Kazakh pipeline to China (map 2). For years, Russia has talked about extending its main cross-country oil pipeline eastward from Siberia to the Pacific and actually began construction on a small segment of the pipeline in the spring of 2006 (eastward from Skovorodino; map 3). But it has yet to make a final decision about a branch south from that line to China.

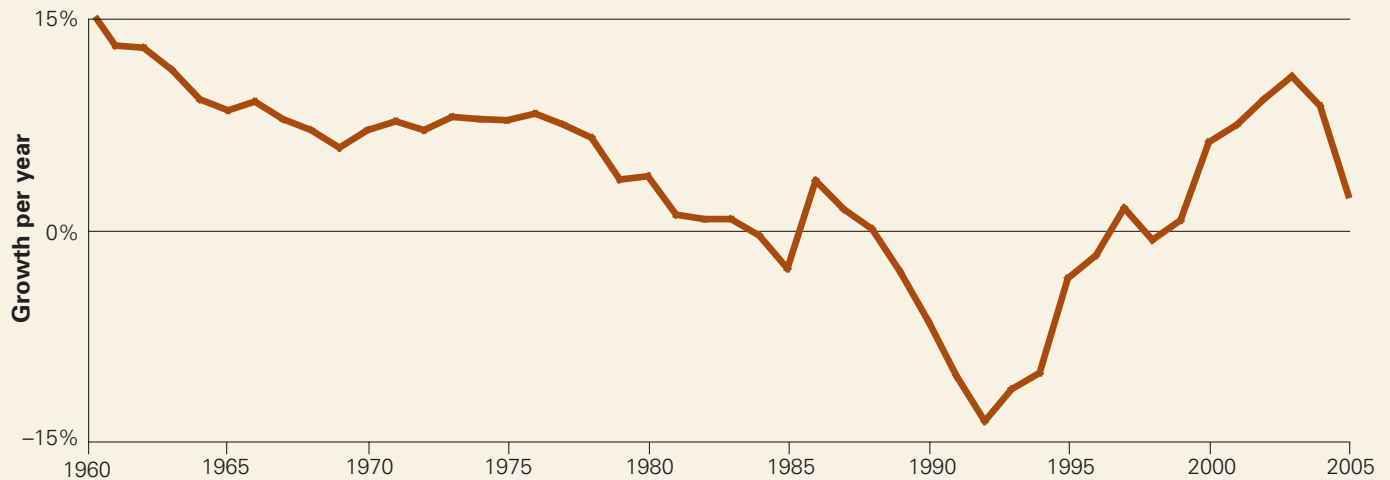
Russia's oil exports to China still constitute only a small fraction of its exports to the West, and Russia does not yet sell natural gas to China.<sup>13</sup> Visions for the future, however, are much more expansive. Russia's minister of industry and energy, Viktor Khristenko, has stated that he expects that by 2020 a third of Russia's energy exports will go east—a huge leap over the current figure of only 3 percent of total energy exports. Khristenko's ministry also projects that the bulk of these increased exports will originate in new eastern Siberian oilfields that will be developed simultaneously with the construction of the long-proposed East Siberian oil pipeline. Khristenko has further declared the massive energy development of eastern Siberia and the Far East to be a "complex project of great geopolitical significance to Russia, the Eastern equivalent of the 'window to Europe' that Peter the Great cut in the eighteenth century."<sup>14</sup> But grandiose statements notwithstanding, Russia has jockeyed interests for a decade between China and Japan (the former primary energy importer in Asia) in its decision-making in the East. That equivocation continues.

In the short term, Russia's goal seems to be to connect the rapidly growing Asia-Pacific region with oil production and infrastructure in West Siberia. Over the long term, it plans to develop an alternative market to Europe because European energy demand is plateauing, while Asia's continues to rise. In the meantime, Asia is used as a political lever in disputes with Europe over "security of demand." President Putin, for example, announced Russian plans to build one or two gas pipelines to China in his latest visit to the country in March 2006. This announcement was made against the backdrop of the Ukrainian-Russian gas crisis and European debates about diversification away from Russian gas.

## Sustainability of Supply

Sustaining Russia's oil and gas production is crucially important to meet these commitments, explicit and implied, at home and abroad. Yet the picture is not good. Russia's oil output growth is tapering off. Production capacity that was built up in Soviet times is exhausting its potential. For the past two years in a row, oil output growth rates have plunged to an extent not seen since the Gorbachev period (fig. 8).

**Figure 8. Russian Oil Output: Growth Rates,<sup>a</sup> 1960–2005**



a. Data for oil produced on the territory of the present-day Russian Federation.  
Source: Clifford G. Gaddy, The Brookings Institution, 2006

To maintain and increase production growth rates across the Russian oil sector, new fields need to be discovered, developed, and supplied with new technology and infrastructure. In 2005, 68 percent of Russia's oil and 91 percent of its natural gas came from a single western Siberian region, Tyumen.<sup>15</sup> To increase volumes substantially over the coming years, Russia will have to move into entirely new areas in eastern Siberia and the offshore shelf zones, primarily in the Arctic Seas (Barents and Kara).<sup>16</sup> Developing these areas will be a monumental task. The Tyumen fields that now account for such a large portion of oil and gas are in cold, remote areas at a significant distance from major domestic and foreign consumer markets and refineries. The new fields will be even more remote with more geologically complex and difficult environmental conditions. Oil and gas fields in western Siberia have benefited from major infrastructure and geological data developed under the conditions of the Soviet planned economy. These assets were established at virtually no cost for Russia's current producers and exporters. Producers in new areas will not have the luxury of exploiting preexisting infrastructure.

As a result, it is likely that western Siberia will continue to be Russia's major production region for the foreseeable future. John Browne, group chief executive of BP, one of the chief foreign investors in the Russian energy sector, admitted in June 2006 that the devel-

opment of greenfield oil sites in East Siberia is “still a forthcoming chapter.” Although the Russian government has directed considerable exploratory onshore drilling in East Siberia, Browne noted that all the discoveries have significant technical challenges to solve and that there will be a substantial time lag for development. Browne further observed that fields off Russia’s Pacific coast around Sakhalin Island are the only realistic near-term project for oil development outside western Siberia. Proposed large-scale Russian oil exports to Japan and China, he stated, will have to come from western Siberian fields for the foreseeable future.<sup>17</sup>

## Fighting over the Spoils

Wherever oil and gas are to come from in the future, things need to start happening soon. But even by the crudest measure for sustainability of oil and gas—so-called reserve replacement ratios—Russia’s outlook is not good. The question is: does anyone care about the sustainability challenge? Writing about the problems faced by resource-abundant economies throughout history, Gavin Wright warned of the danger that arises when those nations devote too much effort to “divvying up the bounty” from their resource wealth and too little to “creating the bounty,” that is, to ensuring the sustainability of the resource sector.<sup>18</sup> This is a danger facing Russia as its elites concentrate their efforts on gaining control over resource rents to the detriment of policies that could ensure continued reproduction of resources and the rents they bring.

President Putin’s heavily bureaucratized, hierarchical system of governance (the “vertical of power”) masks considerable divisions among its leadership. The first divisions emerged between the holdovers from former president Yeltsin’s team, who tended to favor a more decentralized Russian Federation, and Putin’s appointees, who promoted a strong centralized state. After Putin eventually replaced the majority of the Yeltsin holdovers, new divisions emerged within his team among several rivaling groups of “lawyers from Saint Petersburg,” former members of the security services (also known as *chekists* or the *siloviki*), and economic liberals in the administration, as well as among other groups of actors centered around economic interests.

After 2003 the major single source of rivalry and divisions among the elites in Putin’s uniform system became who could exert control over resource rents—especially oil and gas rents. The YUKOS affair was a classic example and outcome of this behind-the-scenes competition. In its early stages, the crisis over YUKOS was widely perceived as a clash between the economic interests of the *siloviki* and the oligarchs (private businessmen—usually bankers—who had acquired energy assets through Yeltsin’s privatization program in the 1990s) and their various supporters. But it became increasingly clear that the real issue at the heart of the YUKOS affair was the redistribution of Russia’s oil assets and windfall profits.<sup>19</sup> This was underscored and exposed by the eventual incorporation of YUKOS’s major production subsidiary Yuganskneftegaz into the state-dominated oil company Rosneft.

By 2005 control over most lucrative production assets and companies was solidified by elites inside and outside (but closely tied to) the Kremlin. The list of executive branch and presidential administration members who serve on boards of state-controlled or state-owned corporations in the oil and gas and other extractive industries is impressive. For example, Putin's chief advisor, Vladislav Surkov, is chairman of the board of Transnefteprodukt, an oil product pipeline company; deputy head of the presidential administration, Igor Sechin, is chairman of the board of Rosneft, Russia's largest state oil company; finance minister Aleksey Kudrin is on diamond company ALROSA's supervisory board; first deputy prime minister and former top presidential aide, Dmitry Medvedev, is chairman of the board of gas giant Gazprom; and Viktor Khristenko, minister of industry and energy, is chairman of the board of Transneft, Russia's oil pipeline monopoly.<sup>20</sup>

These key figures and others have been embroiled in disagreements over the most effective way to manage these assets and companies to retain their lucrative properties and to ensure that they continuously generate new bounty. They have been faced with a variety of management decisions, including how to ensure reserve replacement; how to create a regime for ensuring access to and the exploitation of Russia's mineral resources; whether, to what extent, and how to use energy as a domestic and foreign policy political tool; and how to manage the oil stabilization fund and its structure, volume, and disbursement.

Most of the powerful control functions over oil and gas resources, production, and export are in the hands of individuals with little or no knowledge of the technical aspects of the industry. They are mainly officials who are former lawyers, members of the Soviet-era KGB and security services, and economists. They include Mikhail Fradkov, prime minister; Dmitry Medvedev, first deputy prime minister and chairman of the board of Gazprom; and Igor Sechin, deputy head of the presidential administration and Rosneft chairman. This group sees promise only in growing resource rents and seems unaware of the problems ahead, believing that Russia's resource base will be sustained miraculously, thanks to the country's huge endowment. They contend that reserve replacement-production misbalance will be alleviated by infrastructural investments, fortunate field discoveries, and the state's further acquisition of existing Russian oil assets as well as energy assets abroad.<sup>21</sup>

Countering these people are a few who have a relatively realistic picture of the true time and volume limits of Russia's oil geology. These pragmatists include former oligarchs and current oil industry executives, like Vagit Alekperov of LUKoil, as well as the heads of state-owned and state-loyal oil companies like Rosneft, Gazprom, and Surgutneftegaz. However, in Russia's increasingly centralized economic system and corporatist state model, they find themselves operating as managers rather than independent CEOs. Moreover, these energy executives have to satisfy political demands for formal and informal rent contributions (taxes, investments in social infrastructure, and other mechanisms). And their ability to act is hampered by high tax burdens and a lack of executive power.

On the government side, the minister of natural resources, Yuriy Trutnev, is an important figure who has demonstrated awareness of the sustainability issue. Formerly governor of Russia's Perm region in the Urals, Trutnev used a successful business career (in retail and

---

Putin is obviously the key figure in Russia's energy policy . . . . He would find it unacceptable to have the public perceive Russia's oil and gas base as being in danger of depletion.

---

wholesale trade) to enter politics, first at the city and then regional level before being called to Moscow in 2004. Trutnev is a petroleum engineer by education and training with first-hand experience of Soviet oil production and its problems during the 1980s. He believes that market mechanisms can improve reserve replacement ratios; he advocates regulation with limited state involvement in the most strategic areas, and is pushing his own version of Russia's law on subsoil resources. However, Trutnev has lost a good deal in battles with Kremlin insiders with vested interests in the resource sector. He has so far failed to secure adoption of his version of the federal subsoil law (discussed below), which aims to stimulate reserve replacement through transparent market mechanisms.

Putin is obviously the key figure in Russia's energy policy. Although he is not a former industry insider (like Trutnev, for example), Putin appears to have made an effort to educate himself on the issues. His 1997 dissertation, defended at the Saint Petersburg Mining Institute, concerned strategic planning in managing the resource sector of Russia's economy and the critical role that reserve replacement plays in it. Since he first took office as president in 2000, Putin has repeatedly called for a new policy for improving the rates of reserve replacement in all the extractive industries.

Putin's connection to the St. Petersburg Mining Institute is important in this respect. Vladimir Litvinenko, rector of the institute and a prominent geologist, is a long-time advisor to Putin. Litvinenko is publicly vocal about the crisis of Russia's shrinking resource base. He calls for imposing restrictions on Russia's oil exports and investing in processing industries and geological research rather than extraction. He also supports more active and effective federal and regional management over raw materials sectors of the economy.

It is not clear to what extent Putin shares some of Litvinenko's stronger views. He is certainly more constrained from making bold statements for fear of undermining the country's political and economic stability. Putin has based his presidency on ensuring stability (economic stabilization, stability, and growth are frequently cited as the greatest achievements of his tenure). He would find it unacceptable to have the public perceive Russia's oil and gas base as being in danger of depletion. At the same time, Putin cannot be unaware of the cost of inaction on reserve replacement. A decline in oil and gas output is not simply a potential impediment to Russia's long-term sustainable growth. If current downward production trends persist in 2006 and beyond, they may undermine the strategic plans of Kremlin elites, whose power rests on rent-driven political stability and economic growth in the run-up to Russia's 2007–08 election cycle. Moreover, in the wake of its controversial January 2006 dispute with Ukraine over gas pricing, Russia needs to reestablish and underscore its image as a reliable, long-term global energy supplier, especially in Europe. Ensuring and guaranteeing reserve replacement is essential, while world oil prices are high and at a juncture when Russia's energy sources beyond hydrocarbons (nuclear, hydropower, electricity generation) have yet to develop to their full potential.



## The Subsoil Law

One focus of debates relating to the sustainability of oil and gas production has been the legal environment for the development of Russia's energy resources, enshrined in a new law on subsoil resources.<sup>22</sup> For many observers of Russia's energy sector, the country's underdeveloped legal framework and surrounding uncertainty present a major investment impediment to both domestic and foreign oil producers. There are no clear "rules of the game" for either Russian oil companies or foreign companies that conduct or plan to conduct energy-related activities in Russia. Property rights are also still viewed as weak by many investors and operators.<sup>23</sup>

Although President Putin and his ministers, as well as the owners and managers of Russian energy companies, appear to agree on a general need for foreign investment in the energy sector, Russia repeatedly sends mixed signals on the terms of foreign access to its vast energy deposits and transit infrastructure. For example, Russia's minister of economic development and trade, German Gref, has suggested that the country's natural resources are so vast that Russia alone will never have sufficient capacity to exploit them. At the same time, he has stressed that it is unlikely that any foreign companies will be able to acquire controlling stakes in a Russian company (although they could, theoretically, acquire a stake of up to 50 percent).<sup>24</sup> This is but one example of the contradictory statements on foreign access to Russian resources, which companies hope—along with numerous disputed regulatory issues—will be clarified with the adoption of the new subsoil law, as well as a new draft law on strategic enterprises, and the new Russian energy strategy for 2030.<sup>25</sup> The adoption of new legislation, however, is also expected inevitably to increase the regulatory role of the Russian state in licensing for energy exploration, production, and exports.

Yuriy Trutnev, minister of natural resources, declared the adoption of new subsoil legislation to be his top priority following his appointment in 2004. Two and one-half years later, however, versions of the law are still being debated in Russian ministries and the Russian Duma. Major differences in the various versions of the law are highlighted in the table below.

Despite the legal uncertainties and higher risks for foreign operations in Russia, however, foreign participation in Russia's energy sector has increased steadily since the late Gorbachev and early Yeltsin years, especially in the form of joint ventures. In the mid-1990s ExxonMobil, Shell, and a few other companies launched several major long-term and high-cost offshore oil and gas projects on the island of Sakhalin off Russia's Pacific coast. In 2003 BP entered a fifty-fifty venture with the Tyumen Oil Company to form TNK-BP (their major area of operations are in western Siberia). ConocoPhillips is increasing its stake in LUKoil, Russia's largest private oil company, to 20 percent (its major area of cooperation is the Timano-Pechora Province in northwest Russia). Other companies operating in Russia include Total of France and two major oil service operators, Schlumberger and Halliburton. Russia is also expected to strengthen its cooperation with Norway's NorskHydro and Statoil, as new offshore fields in the Barents Sea and elsewhere in the Russian sector of the Arctic are eventually tapped. (Norwegian firms have considerable experience in offshore Arctic energy project development.) Asian energy companies



like China's SINOPEC and CNOOC, India's ONGC, and a number of Japanese and Korean enterprises are also planning to expand their participation in Russian and Central Asian energy projects.

### Comparative Chart of Different Versions of the Federal Law on Subsoil Resources

Provisions of the 1992 Subsoil Law	First Version of the Subsoil Law	Current Version of the Subsoil Law	Draft of the New Subsoil Law (The Trutnev Draft)
Ownership of the subsoil resources ( <i>sobstvennost'</i> )	Federal ownership	Federal ownership	Federal ownership
Long-term use of subsoil resources ( <i>vladeniye, pol'zovaniye, rasporyazheniye</i> )	Joint jurisdiction of the Russian Federation (federal government) and subjects of the Federation (regions)	Joint jurisdiction of the Russian Federation and subjects of the Federation (regions)	Sole jurisdiction of the Russian Federation
Participation in the granting of entitlement to rights for extraction of reserves	Both the federal government and regions: Principle of "two keys" ( <i>printsip dvukh kluchey</i> )	Participation of regions is limited to coordination	Regions participate in coordination of plots (reserves) of local significance; entitlements to rights of extraction of federally significant reserves (including strategic reserves) to be granted by the federal government
Distribution of tax on extraction of mineral resources between the Federation and its subjects	Regulated by the Subsoil Law	Regulated by the Russian Taxation Code and annual budget laws	Regulated by tax and budget legislation
Form of granting entitlement to extraction of reserves	Licensing	Licensing	Through contract; previously issued licenses not to be revoked
Mechanism of granting entitlement to extraction of reserves	Auctions and contests (bids)	Auctions and contests (bidding procedures, regulated by administrative law)	Only auctions (regulated by civil law)
Access to extraction of reserves	Equal access of all companies in the extractive industry	Equal access of all companies in the extractive industry	Companies with foreign capital practically lose access to extraction

Source: *Expert-Sibir'*, no. 4 (101), January 30, 2006 ([www.expert.ru/printissues/siberia/2006/04/zakon\\_o\\_nedrah\\_vyvody](http://www.expert.ru/printissues/siberia/2006/04/zakon_o_nedrah_vyvody)).

## Official Energy Strategy

Nominally, Russia's most comprehensive statement of its national energy policy is the document "Russia's Energy Strategy until 2020," which was drawn up in 2002.<sup>26</sup> It advances the basic idea that Russia's resource endowment is essential to its domestic energy security and to sustained economic growth. The priorities it outlines include provisions for a secure domestic supply at balanced prices, energy saving and conservation technologies, financial stability and greater investment potential, and environmental protection.

The document stipulates that the state should limit its role as a commercial actor in the fuel and energy sector but simultaneously strengthen its role in the establishment of market infrastructure and market regulation. While the “Energy Strategy” praises self-sufficiency of the domestic fuel and energy complex, it also emphasizes the heavy dependence of state revenues on global energy prices and the condition of the world energy market.<sup>27</sup> It thus distinguishes between the internal variables that can be regulated or controlled by the Russian state and Russian companies and the external variables that are largely uncontrollable and will require domestic flexibility and adjustment.

The strategy also lays out some specific targets—for example of about 10 mbd in oil production and exports of 5.5-6 mbd by 2020 and the production of 680-730 bcm of gas by 2020. It also presents an export strategy, including the development of both oil and gas pipeline routes in the Baltic, Black, and Mediterranean Seas, and the Russian Far East (Pacific region), and the development of liquid natural gas (LNG) infrastructure for gas.

Coal is also a major focal point of the 2002 energy strategy as a neglected traditional source of energy. Russia holds a quarter of global coal reserves, but now only generates about 18 percent of domestic electricity from coal. The strategy suggests that by 2006 coal will cost as much as natural gas as a result of growing global demand for gas. It suggests further that by 2010 gas will grow to be 40 percent more expensive than coal. A shift in the coal-gas price is expected to boost coal extraction and its use as a replacement for gas in electricity and heat generation. Coal is also seen as a means of freeing up additional gas for chemical processing and export.

Similarly, the 2002 strategy focuses on electricity production with calls for substantial domestic investment in the sector and plans to increase the share of nuclear power in electricity generation from 15 percent in 2002 to 23 percent in 2020.

Russia’s energy strategy was adopted in 2002, at a time when oil and gas prices were considerably lower. In many respects, the document was not so much a strategy as a plan with fairly inflexible production projections and elements of wishful thinking for the future. Some targets, like oil output, have been met ahead of schedule, by 2003–04 instead of 2010 or 2020, while in other priority areas, like power generation, there has been no progress in almost five years.<sup>28</sup> No alternative energy strategies have been circulated, and there is no real substantive debate outside academic circles about what Russia’s energy strategy should be. The government, for its part, focuses on making projections for economic growth based on various scenarios for oil prices over a range of time frames. Energy strategy debates in academic circles also spill over into other debates about the long-term development of resource-rich Siberia, for example, the uses of the oil stabilization fund, and industrial modernization and economic priorities.

The debate around the development strategy grows increasingly intense as more money is accumulated in Russia’s oil stabilization fund and the state’s budget surplus swells. High risk industrial projects are now being pushed through by vested regional and federal interest groups beyond the Urals in Siberia, including the construction of the *Ural*

*Promyshlennyy–Ural Polyarnyy* (Industrial Urals–Polar Urals) railroad and the construction of the East Siberian oil pipeline. The logic behind these expensive projects is that since Russia is so resource-rich, infrastructure investments will, in turn, trigger the discovery and development of new oil, gas, and other mineral and ore fields. However, even Russian officials and businessmen (from Gazprom, the Russian railroads, TNK-BP, Rosneft, Transneft, and others) promoting these projects admit that there are no guarantees of economic success.

The Russian government is now revising its energy strategy up to 2030. This document will include an updated set of growth projections. It will also include new terms that Russia has introduced into the 2005–06 debate—strategic deposits, security of demand, and security of supply. The strategy is expected to formulate a new policy approach to environmental issues, as well as to nuclear and renewable energy. Based on an updated set of projections and an emphasis on diversification of energy production and exports, Russia plans to identify and secure its position as a major player in regional and global energy markets.<sup>29</sup> The current government goal, according to Russia’s Group of 8 (G-8) sherpa, Igor Shuvalov, is to adopt the new energy strategy after the 2006 G-8 summit to incorporate agreements and conclusions from the summit into the strategy.<sup>30</sup>

## Putin’s Views

As for Vladimir Putin, his thinking on energy policy and energy security has been molded by a very specific set of circumstances. When he became acting president of Russia on December 31, 1999, world oil prices were at one of their lowest levels since the mid-1980s. Russia’s economy had been weakened by the financial crisis and default of August 1998 and burdened by the debts to international financial institutions accumulated under President Yeltsin in the 1990s. However, the downward trend in the Russian economy was also showing the first signs of reversal. Domestic manufacturing had picked up as the collapsed ruble made foreign (imported) goods prohibitively expensive, and oil production had also begun to revive. But with few strong signals of economic improvement, a weak national currency, the federal government paralyzed, and the country plagued by separatist regional ambitions and Russia’s eighty-nine constituent federal units essentially operating autonomously, Putin’s early policies were aimed at restoring the authority of the central Russian state. Oil and other key commodities were perceived as the only insurance against new crises and as the means of ensuring the state’s survival and revival.<sup>31</sup>

As global energy prices increased and Russia’s oil production picked up, Putin’s and Russia’s approach to energy policy changed accordingly—from survival and revival tactics to ambitious expansion. Russian state-owned and private companies began to expand their operations into the former Soviet republics, eastern Europe and beyond, acquiring former energy assets using growing receipts from oil exports, which translated into substantial revenues for investment.<sup>32</sup> By 2003, Russia’s economic reexpansion into its “near abroad” was crystallized in the term and concept of Russia’s “Liberal Empire,” coined by Anatoliy Chubais, Unified Energy System’s head and former Russian prime minister, and described at length in an article for a leading Russian newspaper.<sup>33</sup>

Putin had first developed his ideas for the energy sector in his 1997 economic dissertation on strategic planning in reserve replacement. There he outlined a decisionmaking model in which a corporation (or a state) takes steps to adapt to external circumstances that are both volatile and unpredictable. These ideas seem to have guided a great deal of his subsequent actions and interventions in the Russian energy sector. Later, in a 1999 article written in his private capacity for a St. Petersburg journal, Putin put forward the idea that natural resources were the key to Russia's future economic prosperity as well as an essential survival mechanism.<sup>34</sup> He proposed that in light of Russia's vast resource wealth, it was entirely logical to exploit this endowment and manage it wisely for the benefit of the state. In the early years of his presidency, in 2001 and 2002, Putin expressed clear concerns about the risk of Russia's economic overdependence on oil and reliance on oil exports while also stressing the importance of reserve replacement.<sup>35</sup>

Putin's general views on energy security and the use of Russia's energy resources have been fairly consistent since his 1997 dissertation and 1999 article, but they have also evolved over time. By 2004–05, what Putin once saw as a resource that should be reproduced but not overproduced, had—thanks to the doubling of world oil prices in this period—become the means for Russia to reach new, commanding heights. This view was laid out publicly and overtly in Putin's speech to the Russian Security Council on December 22, 2005:

Let me emphasize: Russia values its reputation of a solid, reliable and responsible partner in the market for energy resources, a reputation it deserves. Already now our country is the first in the world for gas exports and the second in oil and oil products. There were months in which we held first place. Russia is making an important contribution towards maintaining global and regional energy security. . . .

Moreover, our country has certain competitive and natural advantages as well as the technical opportunities to occupy a more significant position in the energy market. We should use these advantages in the interests of the entire international community but also keeping in mind our own national interests. Russia's well-being in the present and the future directly depends on the place we occupy in the global energy market. . . .

Aspiring to be leaders in the world energy market is very ambitious. To accomplish this it is not enough to simply increase production volumes and exports of energy resources. Russia should become the initiator and trendsetter in energy innovations, new technologies and also in looking for modern forms of resources and resource efficiency. . . . I am convinced that our country's fuel and energy resources and national research are ready to meet such a challenge.<sup>36</sup>

In 2006, after reasserting and regaining state control over the management of resources, Putin clearly views mineral resources, primarily oil and gas, as Russia's greatest competitive advantage. He also understands that the economic and political advances the state has made over the last seven years are both directly and indirectly based on the production and exports

of hydrocarbons. In a particularly memorable phrase at the Russia-EU Summit in Russia's Black Sea city of Sochi on May 25, 2006, Putin described energy as the Russian economy's "holy of holies" (*svyataya svyatykh rossiyskoy ekonomiki*) because of its strategic importance.<sup>37</sup>

## Russia as an "Energy Superpower"

All of Russia's major oil and gas companies have shown themselves eager to participate in the new foreign policy strategy.

Comments like these from Putin and others in 2005–06 have resulted in much recent attention in the Russian and international press to the idea of Russia as an "energy superpower."<sup>38</sup> This concept emphasizes Russia's ambitious goal to establish its leadership in the world energy market (as outlined in Putin's December 2005 speech to the Russian Security Council) and the growing role of Russia's energy resources in its broader foreign policy strategy. It has subsequently been introduced into public discourse by an orchestrated campaign by the Kremlin. In February 2006 presidential aide and chief Kremlin ideologue, Vladislav Surkov, used the term in a speech to the Congress of the United Russia political party. At exactly the same time, a leading Kremlin-backed opinion polling agency conducted a survey of public attitudes to "Russia as an energy superpower." The agency reported that a large percentage of Russians supported a policy of using energy exports as a means to maximize Russia's "global weight."<sup>39</sup> Since early 2006 there have been dozens of articles and interviews using and discussing the term.

Views about the use of energy as a foreign policy instrument by the Russian government vary. They range from Chubais's idea of Russia creating an integrated liberal economic "empire" in its neighborhood by using old energy and other economic infrastructure and linkages and building new ones—from new electric grids to rail and road networks and high-technology communications (cellular phone and satellite systems)—to Foreign Minister Lavrov's proposition that energy exports should be deployed directly for political and economic purposes. Lavrov has signed agreements between the Ministry of Foreign Affairs and key energy companies, for example, Gazprom and LUKoil, to cooperate in their commercial expansion abroad, as well as with key transportation sectors like Russian railroads and airlines.

Besides enhancing the normal diplomatic support that a company operating abroad receives from its own government, the idea of these agreements is to create and bolster national champions internationally, and to build up energy reserves and capacity in the resource and power-generation sectors by pursuing bilateral state-to-state deals. Lavrov is an active proponent of securing deals with key countries like Turkey, Germany, and Saudi Arabia to promote bilateral cooperation with Russia and secure advantageous positions for Russian companies by acting as their intermediary in these states. Lavrov sees the growth in Russian oil production and exports as now guiding Russia's foreign and domestic policy, and as a means to strengthen Russia's position as a nonaligned, independent power in international affairs.

All of Russia's major oil and gas companies have shown themselves eager to participate in the new foreign policy strategy. LUKoil is probably the best example of a mostly private oil company with foreign and minority shareholders that is close to the Russian state and

through its CEO, Vagit Alekperov, can openly request state support. Before Putin's trip to Hungary in February 2006, for example, Alekperov publicly expressed his hope that the president's visit would help LUKoil acquire downstream assets in Hungary. Putin agreed to assist, following the logic that "what's good for LUKoil is good for Russia."<sup>40</sup> LUKoil is also, however, dependent on the Russian state to clear major strategic decisions. LUKoil's sale of some 20 percent of the company to the American company ConocoPhillips had to be personally approved by Putin. The Russian president also participated in LUKoil's expansion in the United States, where it acquired the Getty Petroleum distribution network. In other key countries like Iraq, Uzbekistan, Kazakhstan, and Bulgaria, LUKoil has also worked in close coordination with President Putin and the Ministry of Foreign Affairs in making investments and deals and in acquiring assets. Since the finalization of the YUKOS affair, in which the state took over Russia's largest private oil company and sentenced its CEO, Mikhail Khodorkovsky, for tax evasion and fraud, the division between state-owned and private companies has become increasingly blurred.

Other Russian energy companies may be driven by specific motives to gain state support in their foreign activities. For instance, Tatneft—the regional operator in the predominantly Muslim central Russian Republic of Tatarstan—now has depleted, low-quality oilfields. Tatneft and other companies with this problem seek opportunities to invest in upstream oil resources outside their traditional area of operation, especially abroad. Tatneft is particularly interested in establishing joint ventures in Islamic countries like Iran, Oman, Libya, and Syria, and seeks assistance from the Ministry of Foreign Affairs in diversifying its portfolio. Tatneft's activities in these states will also inevitably expand Russia's influence abroad in states and regions where a larger Russian state-dominated company like Gazprom may not be immediately welcome.<sup>41</sup>

At the same time, the weak property rights that bedevil private oil companies in Russia are partially compensated by stronger property rights that these companies can expect to obtain abroad, where their assets are less likely to be frozen by the Russian state. Russian oil and gas companies are also eager to expand their cooperation abroad to establish themselves as truly international firms. As long as their headquarters remain in Russia and they pay taxes on Russian territory, the state is highly supportive of their expansion. Russia's national champions in the energy industry (Gazprom, Rosneft, and LUKoil, in particular) are promoted by the state and their success is perceived as Russia's own success, contributing to a positive image of Russia abroad. The better their international performance, the more confident foreign investors and governments are in cooperating with Russian businesses.

Putin's choice of energy security as the centerpiece for Russia's agenda for its 2006 G-8 presidency was a clear part of this pattern of the state promotion of the country's energy advantage. In 2006 Russia assumed the rotating presidency of the G-8.<sup>42</sup> President Putin and Russia's leadership emphasized global energy security to advance Russia's status within the G-8 and to play upon its image as an energy superpower.<sup>43</sup> The Russian G-8 agenda stresses that global energy security is inseparable from Russia's own energy and economic security.



## Dissenting Voices

There are some cautionary voices, however. The table below presents some of those who have reservations about Russia’s grand energy ambitions. While these dissenting views may hold little weight in current Russian policymaking, it is important to be aware of them, since they may gain support in the future. The most serious of the arguments against Russia pursuing energy security as part of its foreign policy agenda are based on academic studies emphasizing Russia’s low rate of reserve replacement; the inefficiency of domestic energy use, including Russia’s lack of clean technologies and its shortage of deep refining capacity; the country’s overdependence on conventional energy (hydrocarbons) concentrated in a single province of western Siberia; and the shortage of uranium for fueling new nuclear plants. Russian academic studies also outline concerns that the country may overstretch its resources in an effort to fulfill its energy export ambitions, and consequently find itself in the position of technologically lagging behind the West and Asia, as its mineral reserves decline. Other concerns are more economic in nature. No one—neither in Russia nor internationally—can accurately predict if and when the period of high energy prices will come to an end, and with it, Russia’s current oil bonanza.

Russia as an Energy Superpower: Cautionary Voices <sup>44</sup>	
Actor	Expressed Reservations to Russia’s Energy Ambitions
Aleksandr Portnov, professor, Moscow Geology University	“Russia has become the least-developed colony, obediently supplying developed countries with energy resources and electricity.”
Vladimir Fortov and Aleksey Makarov, Russian Academy of Sciences (RAS)	“Oil and gas constitute less than a quarter of energy reserves but generate some 80 percent of energy, while coal and uranium constitute 76 percent of reserves, but only generate 13 percent of energy supply. There is a mismatch between reserves and their use. Tens of billions of dollars need to be invested not in pipelines, but in new technology, energy efficiency, and energy conservation.”
Nikolay Lavrov, vice-president, Russian Academy of Sciences	“The current volumes of oil production have not been replaced with new reserves since the late 1990s. The depth of refining is low. Russia needs some 15 billion dollars for scientific research in issues of energy security alone. Several industrial regions of Russia may face energy shortages by 2010.”
Anatoly Chubays, CEO of RAO Unified Energy Systems (UES)	“Over a quarter of Russian power turbine equipment is now beyond its operating life. The quality of existing equipment is extremely low.”
Yegor Gaydar, director of the Institute of Transition Economies	“Russia’s economic performance is largely based on oil revenues resulting primarily from the high global commodity prices, which are volatile and unpredictable. The last time the world oil price fell—it took it seventeen years to rise again. In the meantime, the USSR collapsed. Russian policies should be realistic. High oil rents are not bad, but heavy reliance on oil exports and high prices are.”
Vladimir Litvinenko, rector of the Saint Petersburg Mining Institute	“The country is moving nowhere on a course based on the sale of her natural resources. The existing export system is barbarically wasteful because we lose 30 percent of hydrocarbon resources in transit from the producer to consumer.”
Sergey Glaziyev, member of the Russian Academy of Sciences, Duma deputy	“It is in Russia’s long-term national interest to limit her energy exports. Additional export obligations will force Russia to provide for U.S., EU, and Japanese energy security at her own expense.”

## Russia's Energy Security Agenda and "Security of Demand"

Russia's G-8 proposal for global energy security ultimately has its roots in Russia's domestic and regional energy policy. Like the 2002 energy strategy document, the Russian G-8 agenda emphasized the increasing role that nuclear power will play in Russia's future energy security, especially in electricity generation. It also stressed diversifying energy sources and increasing efficiency in both the refining of petroleum and the use of gas, as well as in energy generation and consumption. These are specific issues of concern for Russia as implementing domestic diversification and efficiency measures could, in principle, create consumption shifts that will make more oil and gas available for exports, even with projected declines in output.

Putin and other Russian commentators on energy security have also promoted the idea of greater interdependency (rather than dependency) between Russia as a supplier and its consumers in G-8 and other countries. The idea of interdependency is seen as, in effect, securing existing energy markets through long-term energy contracts ("security of demand"), particularly in Europe with natural gas. Interdependency is also viewed as a strategy for facilitating Russian expansion in downstream markets that are currently off limits for political and economic reasons.<sup>45</sup> This is critical for Russia with the production of "easy" (Soviet-era) oil now coming to an end and with new oil and gas fields requiring tremendous investments over long periods of time.<sup>46</sup> The Russian leadership has made it clear that Russia's position will be inadequately secured unless importers of Russia's energy commit to "take or pay" contracts.

A project that could potentially demonstrate this type of interdependency is the Shtokman field in the Barents Sea, the world's largest offshore gas field. It has proven reserves of 3.7 tcm. Shtokman alone can, theoretically, supply as much as 14 percent of Europe's gas imports, or replace all of Norway's current gas production. It also offers the possibility of supplying liquid natural gas to the United States. However, the costs of developing this field in harsh Arctic conditions will be substantial, and Russia would like to share the risks and investment costs with international partners. Moreover, Russia also wants a firm commitment from the EU (and the United States) to purchase the gas from Shtokman when it comes online. Otherwise, Russia will postpone its development or implement it differently. Russia's G-8 liaison, Igor Shuvalov, has also suggested that U.S. company access to Shtokman development may be tied to U.S. approval of Russia's accession to the World Trade Organization (WTO) and has delayed finalizing the decision about which companies will be selected by the Russian government to develop the gas field. On the other hand, Gazprom's leadership claims the delay in the Shtokman negotiations and bidding is exclusively technical and economic—related to difficulties raised by Russia's inexperience with offshore technology, which necessitates the careful evaluation of all the bid proposals.

In contrast, the EU, as Russia's major energy importer, is now reluctant both to commit to long-term energy interdependence (especially in the wake of the Russian–Ukrainian gas

crisis of January 2006) and to allow Russian energy giants to enter its downstream markets.<sup>47</sup> Europe's main concern is security of supply, not Russia's security of demand.

In addition to ensuring its security of demand, Russia also wants to ensure security of transit and establish itself as the essential transportation bridge and major economic player and negotiator linking Europe with Asian oil and gas.<sup>48</sup> In this respect, Russia also wants to promote interdependence in Eurasian energy grids—reducing competition in regional energy markets and introducing more predictability with mutually acceptable terms of engagement, trade, and pricing policy. Those engaged in Russia's internal energy security debates argue for the creation of a framework that will decrease American and European influence in Eurasia, put Russia in an advantageous position to negotiate energy relations between the West and the energy-rich and transit states of the former Soviet Union, and relieve Russia's own shortcomings in oil and gas reserve replacement and inefficient energy consumption. For example, by serving as the primary purchaser and intermediary for shipments of Turkmen gas to Europe, Russian companies will be able to allocate more time and resources to geological research and efficiency enhancement, while remaining fully engaged in the transportation of contractual volumes of energy to their main European consumers.

## Conclusions

- Russia will remain a major energy player on the global market for the foreseeable future.
- Although Russia is often compared to Saudi Arabia, and indeed its energy output is almost equal to it, Russia has virtually no spare export capacity. Therefore, Russia lacks the leverage over world oil markets that Saudi Arabia is perceived to have. The situation is markedly different in natural gas, where Russia is attempting to gain leverage over European gas markets through partnerships with its gas-rich neighbors Turkmenistan and Kazakhstan.
- The country's concept of energy security differs from that of the leading Western consuming nations. For the latter, energy security implies dependable energy supply from multiple independent sources at fair and preferably low prices. For Russia, energy security means security of demand by foreign customers at fair and preferably high prices. Russia is trying to reconcile these differing approaches to energy security and to gain greater access to foreign markets.
- Russia's economic dependence on both oil and gas revenues is substantial and unlikely to decrease in the near future. If energy prices fall or even remain flat, Russia's economic growth will slow considerably.
- Russian policymakers' attention to the resource sector is dominated by issues of rent redistribution (divvying up the bounty), which is hindering the resolution of urgent resource sector problems like reserve replacement.
- Russia's energy security concept is not focused solely on oil and gas, although these twin commodities are its pillars. Russia is in the process of formulating and implementing sev-

eral initiatives for nuclear, coal and hydropower energy generation as well as for energy transportation infrastructure. If successful, these initiatives may free up additional oil and gas export capacity for Russia and decrease its dependency on energy transit through eastern Europe.

- Russia's energy strategy is based on an obsolete document—"Russia's Energy Strategy until 2020." Russia is unlikely to undertake major energy initiatives at home and abroad until it evaluates the results of the G-8 summit. In the near future, Russia will continue to try to use its energy leverage for political and economic gains in Europe and Eurasia.

## Notes

1. Putin then took office as acting president of the Russian Federation on January 1, 2000.
2. Central Bank of Russia, "Platezhnyy balans Rossiyskoy Federatsii (analyticheskoye predstavleniye)" ([www.cbr.ru](http://www.cbr.ru)).
3. World Bank. However, most of these loans were granted to Russian state-owned energy companies—Rosneft and Gazprom—and were spent on the acquisition of assets from private energy enterprises. Similarly, almost a third of foreign direct investment (FDI) went into energy resource extraction in 2005. See Anna Baraulina, "V dva raza bol'she Kitaya" [Twice as much as China], *Vedomosti*, no. 100 (1627), June 5, 2006. Based on official Russian Rosstat data, the World Bank calculated that FDI in energy resource extraction dropped from 42.3 percent in 2004 to 29.9 in 2005, while FDI in the manufacturing sector increased from 30.9 to 46.1 percent. However, most of the increase in manufacturing FDI occurred in the coke and oil products sector—an increase from 0.1 to 27.2 percent. Thus FDI in both the oil and gas, and in the oil and gas-related sectors accounted for 57.1 percent in 2005, up from 42.4 in 2004. FDI in almost every other sector of the economy substantially decreased between 2004 and 2005.
4. "Emerging-market indicators," *The Economist*, August 19, 2005, p. 82. According to former Russian prime minister and economist Yegor Gaidar, in 2006 Russia's currency reserves were sufficient to cover some two-and-one-half years of the country's imports, while, in contrast, in the low oil price days of 1992, they could finance only one hour and forty-five minutes of imports. Yegor Gaydar interview by Anastasiya Malakhova, "Obshchestvo ustayot ot glupostey" [Society gets tired of foolishness], *Novyye izvestiya*, June 1, 2006 ([www.newlzw.ru/news/2006-06-01/47410/](http://www.newlzw.ru/news/2006-06-01/47410/)).
5. The concept of sharing the value of oil and gas in Russia is described in detail in Clifford G. Gaddy and Barry W. Ickes, "Resource Rents and the Russian Economy," *Eurasian Geography and Economy* (November 2005).
6. See, for example, Marshall Goldman, *The Enigma of Soviet Petroleum: Half Empty or Half Full?* (London: George Allen & Unwin, 1980) pp. 163–64; and Stanislav Zhiznin, "The Oil Component of Russian Foreign Policy," *Oil of Russia*, November 3, 2005 ([www.oilru.com/or/24/404](http://www.oilru.com/or/24/404)).
7. Similar growth is increasingly visible in shipbuilding. In spring 2006 Rosneft signed a 350 million dollar contract with stagnating Saint Petersburg shipbuilder Admiralteyskiye Verfi, for delivery of two unique seventy-ton icebreaker tankers for shipping oil from Prirazlomnoye oilfield in the Barents Sea. At the same time, Russia's state shipping company Sovkomflot ordered six 47-ton oil product tankers, of which five have already been delivered. These and other developments are, in the words of Russia's minister of industry and energy, Viktor Khristenko, "an example of how development of the fuel-industrial complex stimulates the development of related industries, transport infrastructure, and machine-building." See "Kontrakt s pritselom v budushcheye" [Contract aimed at the future], *Ezhenedel'nik promyshlennogo rosta* no. 16 (15), May 22–28, 2006, pp. 8–9 ([www.minprom.gov.ru/publication/weekly/archive/2/15/EPR16%2815%29.pdf](http://www.minprom.gov.ru/publication/weekly/archive/2/15/EPR16%2815%29.pdf) and [www.korabel.ru](http://www.korabel.ru)).
8. United Financial Group, "Russian Oils 2005: Red Star Rising" (Moscow, April 7, 2006); and *BP Statistical Review of World Energy* (Oil) (July 2005).
9. References to "Russian" oil and gas data in the text, footnotes, and figures are based on the territory of the present-day Russian Federation. Russia's oil output peaked at 569 mty in 1987–88. It then dropped by

- 47 percent to 1996. It has subsequently risen by 56 percent as of 2005. For gas the corresponding numbers are: a peak of 643 billion cubic meters (bcm) in 1991, an 11 percent drop to 1997, and a subsequent rise of 12 percent by 2005. Russian gas output is now almost as high as it had ever been in the Soviet period.
10. Marco Fantini, European Commission, “Russia’s Energy Policy and EU-Russia Relations,” presentation for conference on Whither Russian Oil? at the American Enterprise Institute (AEI), May 19, 2006 ([www.aei.org](http://www.aei.org)).
  11. See, for example, “Schroeder Attacked over Gas Post,” *BBC News*, December 10, 2005 ([news.bbc.co.uk/2/hi/europe/4515914.stm](http://news.bbc.co.uk/2/hi/europe/4515914.stm)).
  12. Sergei Blagov, “Chinese Investors Consider Joint Projects with Russian Far East,” *Eurasia Daily Monitor* 3, no. 106 ([www.jamestown.org/edm/archives.php?from=2006-06-01&to=2006-07-01](http://www.jamestown.org/edm/archives.php?from=2006-06-01&to=2006-07-01) [June 1, 2006]).
  13. See Oleg Lukin, “Rossiyu zovut v Kitai” [Russia is invited to China], *Neftegazovaya vertikal*, no. 6, 2006 ([www.ngv.ru/magazin/view.hspl?id=3066&mid=118](http://www.ngv.ru/magazin/view.hspl?id=3066&mid=118)).
  14. Tatyana Zykova, “Na vse chetyre storony prostirayutsa segodnya neftegazovyye interesy Rossii” [At present Russia’s oil and gas interests now expand in all directions], *Rossiyskaya gazeta*, February 22, 2006 ([www.rg.ru/2006/02/22/hristenko.html](http://www.rg.ru/2006/02/22/hristenko.html)).
  15. The oil and gas come from two distinct districts within the Tyumen region. The Yamalo-Nenets autonomous district accounts for 87 percent of Russia’s natural gas (and 11 percent of the oil), while the Khanty-Mansiysk autonomous district accounts for 57 percent of the oil (but only 4 percent of the gas) (Russian State Statistics Agency).
  16. According to Julia Nanay, a private U.S. energy consultant, offshore production will be the key to increasing Russian oil output after 2010. By 2020 Russian offshore production, if developed on schedule, could account for as much as 20 percent of Russian gas and oil output. Presentation for conference on “Whither Russia’s Oil?” at AEI, May 19, 2006 ([aei.org/events/eventID.1314,filter.all/event\\_detail.asp](http://aei.org/events/eventID.1314,filter.all/event_detail.asp)). In March 2006 the Ministry of Natural Resources also outlined a draft strategy for developing Russia’s offshore resources up to 2020.
  17. John Browne, “The World Energy Markets—Responding to the New Realities,” presentation for the National Press Club, June 15, 2006.
  18. Gavin Wright, “Resource-based Growth Then and Now,” working paper (Stanford University, June 2001).
  19. Gaddy and Ickes, “Resource Rents.”
  20. Renaissance Capital Resource Portal ([research.rencap.com/eng/government/state\\_industries.asp](http://research.rencap.com/eng/government/state_industries.asp)).
  21. The Soviet leadership took a similar approach to this issue. Limited by its five-year planning horizons, the government failed to forecast either the rapid decline in Soviet oil production in the 1980s or the low global commodity prices—both of which, in the end, significantly contributed to the economic collapse of the Soviet Union.
  22. The Russian constitution declares that all mineral resources, with the exception of abundant materials like sand and clay, are the property of the Russian state and all its citizens.
  23. Some experts talk of the deliberate “dilution of property rights” of energy companies by the state to keep them under continuous pressure. See, for example, Gaddy and Ickes, “Resource Rents” and V. Tambovstev and A. Shastitko, “Uporyadocheniye otnosheniy sobstvennosti” [Bringing order to property rights], *Strategiya Rossii*, no. 4, pp. 71–80.
  24. Gref further suggested that by limiting foreign access to companies and investment: “Russia would pay a price of decreasing rates of gross domestic product (GDP) growth.” Neil Buckley, “German Gref interview: Free market advocate,” *Financial Times*, April 4, 2005.
  25. The Ministry of Natural Resources proposed tightening the criteria for classifying oil and gas fields as “strategic.” The “strategic deposit” classification threshold has been reduced below the initially proposed level of 1.1 bln bbls for oil and from 1 tcm to 750 bcm for natural gas. United Financial Group, update (Moscow, June 6, 2006). These and other protective measures further limit foreign access to Russia’s energy economy. Foreign companies will only be allowed to participate as minority shareholders in these strategic projects.
  26. “Russia’s Energy Strategy until 2020,” adopted by Resolution 1234-p of the government of the Russian Federation, August 28, 2003. A summary of the document is at [ec.europa.eu/energy/russia/presentations/](http://ec.europa.eu/energy/russia/presentations/)



doc/energy-strategy2020\_en.pdf. For a more detailed discussion about the evolution of Russia's Energy Strategy, see Vladimir Milov, Leonard L. Coburn, and Igor' Danchenko, "Russia's Energy Policy, 1992–2005," *Eurasian Geography and Economics*, no. 3 (47), May–June 2006, pp. 310–38.

27. Coburn and Danchenko, Russia's Energy Strategy, p. 6, 8.
28. The 2002 strategy document projected that Russia's oil output would increase to 9–9.8 mbd by 2010, but this target was reached by 2004, a mere two years after adoption of the energy roadmap.
29. Personal communication from Vladimir Milov and Igor Shuvalov, April–May 2006.
30. Personal communication from Igor Shuvalov, April 2006.
31. Putin had addressed this issue of state survival in his 1997 dissertation and his 1999–2000 "Millennium Message" after taking the helm of the state.
32. For an in-depth analysis of Russia's regional policy on the basis of its new oil wealth, see Fiona Hill, *Energy Empire: Oil, Gas and Russia's Revival* (London: The Foreign Policy Centre, 2004).
33. Anatoliy Chubais, "Missiya Rossii v XXI veke" [Russia's mission in the twenty-first century], *Nezavisimaya gazeta*, October 1, 2003.
34. Vladimir V. Putin, "Mineral'no syr'evye resursy v strategii razvitiya Rossiiskoy ekonomiki," *Zapiski gornogo instituta*, vol. 144 (1), Saint Petersburg, 1999, pp. 3–9. Accessed through *Rossiya v okruzhayushchem mire: 2000*. [Analytical yearbook of the Independent Ecology–Political University], N. N. Marfenin, ed. (lib.priroda.ru).
35. Press conference, July 18, 2001 ([www.kremlin.ru/appears/2001/07/18/0000\\_type63380\\_28591.shtml](http://www.kremlin.ru/appears/2001/07/18/0000_type63380_28591.shtml)).
36. ([www.kremlin.ru/eng/speeches/2005/12/22/2222\\_ty+pe84779\\_99439.shtml](http://www.kremlin.ru/eng/speeches/2005/12/22/2222_ty+pe84779_99439.shtml)).
37. ([www.kremlin.ru/appears/2006/05/25/2009\\_type63377type63380\\_106059.shtml](http://www.kremlin.ru/appears/2006/05/25/2009_type63377type63380_106059.shtml)).
38. Ironically, the first reference to Russia as an "energy superpower" appears to have been made not by a Russian, but by Brookings senior fellow Fiona Hill. She used the term in a November 7, 2001, Brookings press briefing on Russia on the occasion of President Putin's visit to President Bush's ranch in Crawford, Texas in the wake of the September 11th terrorist attacks ([www.brookings.edu/comm/transcripts/20011107.htm](http://www.brookings.edu/comm/transcripts/20011107.htm)). She later elaborated on it in "Russia: The 21st Century's Energy Superpower?" *Brookings Review* (Spring 2002). ([www.brookings.edu/press/review/spring2002/hill.htm](http://www.brookings.edu/press/review/spring2002/hill.htm)). The first time the term appeared in print in a major Russian publication was not until fall 2003 (see the weekly *Ekspert*, November 3, 2003).
39. The firm VTsIOM reported that 73 percent of Russians express support for policies promoting the export of Russian energy resources and 41 percent support the idea that Russia's energy exports give it global influence. Only 32 percent see Russia's policy as an "involuntary necessity" as Russia has nothing else to offer the world market, and just 14 percent see Russia's energy export policy as a "mistake." See "Rossiya kak energeticheskaya sverkhderzhava" [Russia as an energy superpower], All-Russia Institute on Research on Public Opinion (VTsIOM), Press Release no. 386, Moscow, February 1, 2006 ([www.wciom.ru/?pt=9&article=2264](http://www.wciom.ru/?pt=9&article=2264)).
40. Vladimir Putin's meeting with LUKoil CEO, Vagit Alekperov, Moscow, February 13, 2006 ([www.kremlin.ru/appears/2006/02/13/1653\\_type63378type63381\\_101609.shtml](http://www.kremlin.ru/appears/2006/02/13/1653_type63378type63381_101609.shtml)).
41. See, for example, "Tatneft Returns to the Middle Eastern States," Tatneft Press Service, September 14, 2005 ([neft.tatcenter.ru/market/31045.htm](http://neft.tatcenter.ru/market/31045.htm)); "Tatneft's BoD Reviewed Company's Budget for the First Nine Months of 2005," November 30, 2005; and "Tatneft Plans to Conduct Geological Research in Syria," January 17, 2006 ([www.lawtek.ru](http://www.lawtek.ru)).
42. 2006 G-8 official website ([en.g8russia.ru](http://en.g8russia.ru)).
43. Igor Shuvalov, "G-8 summit will dissolve Moscow energy bully myth," May 16, 2006 ([en.g8russia.ru/news/20060516/1149751.html](http://en.g8russia.ru/news/20060516/1149751.html)).
44. Table based on the following sources: Andrey Vaganov, "Energobezopasnost': dlya kogo?" [Energy security: for whom?] *Nezavisimaya gazeta*, April 12, 2006 ([www.ng.ru/science/2006-04-12/13\\_research.html](http://www.ng.ru/science/2006-04-12/13_research.html)); Yegor Gaydar, "Strana i nef't: tsena metalla v golose" [The state and oil: price of hard voice], *Vedomosti*, May 17, 2006, ([www.globalaffairs.ru/articles/5583.html](http://www.globalaffairs.ru/articles/5583.html)); Sergey Glaziyev, "Nuzhno li nam stanovit'sa global'nym energeticheskim garantom?" [Should we become a global energy guarantor?], *Rossiiskii ekonomicheskii zhurnal*, March 2006, ([www.glazev.ru/position\\_glazev/1528](http://www.glazev.ru/position_glazev/1528)); Andrey Korneyev,



- “Energeticheskaya bezopasnost’: optom deshevle” [Energy security: wholesale is cheaper], *Politicheskiy zhurnal*, no. 2 (97), January 23, 2006 ([www.politjournal.ru/index.php?action=Articles&dirid=36&tek=4905&issue=140](http://www.politjournal.ru/index.php?action=Articles&dirid=36&tek=4905&issue=140)); and Vladimir Litvinenko, “Srochno nuzhna nauchnaya kontseptsiya ispol’zovaniya nedr” [A scientific concept for the use of subsoil resources is urgently needed], *Rosbalt*, February 9, 2006 ([wisecat.rosbalt.ru/news/210/news](http://wisecat.rosbalt.ru/news/210/news)).
45. One of major disagreements between Russia and the EU is over the Transit Protocol to the European Energy Charter. Russia is ready to ratify the European Energy Charter if these clauses, which it views as a threat to its energy security, are removed from the protocol. Russia does not want to grant European companies access its vast network of state-operated oil and gas pipelines without adequate compensation through Russian stakes in equally valuable European energy assets.
  46. Sources: [www.gazprom.ru](http://www.gazprom.ru), Ivan Rubanov, “Udivitel’naya ustupchivost’ Evropy” [Amazing acquiescence of Europe], *Expert*, no. 22 (516), June 12, 2006. ([www.expert.ru/rus\\_business/2006/06/novie\\_otnosheniya\\_s\\_potrebityami\\_gaza\\_v\\_evrope](http://www.expert.ru/rus_business/2006/06/novie_otnosheniya_s_potrebityami_gaza_v_evrope)).
  47. At the recent EU-Russia Summit in Sochi on May 25, 2006, President Putin suggested that Europe is not offering adequate assets to Russian companies in exchange for Russia allowing Europe to enter its energy market: “If our European partners want us to let them into the holy of holies of our economy, namely the energy sector, and if we do this as many would like it to be done, then we expect something in return regarding the most critical and important areas of our development.” ([www.kremlin.ru/eng/speeches/2006/05/25/2352\\_type82914type82915\\_106078.shtml](http://www.kremlin.ru/eng/speeches/2006/05/25/2352_type82914type82915_106078.shtml)).
  48. See, for example, “Rossiya mozhet khorosho zarabotat’ na tranzite” [Russia can make much money on transit], *Expert*, April 2006 ([www.expert.ru/economy/2006/04/rossiya\\_mozhet\\_horosho\\_zarabotat\\_na\\_tranzite](http://www.expert.ru/economy/2006/04/rossiya_mozhet_horosho_zarabotat_na_tranzite)).