Vladimir Putin’s commitment to oil and gas as the mainstay of Russia’s progress stems from a deep and abiding conviction about its importance to the nation’s economy. Long before he came to power, he had believed that “the restructuring of the national [Russian] economy on the basis of mineral and raw material resources” was “a strategic factor of economic growth in the near term.”

In an article published a year before he became president, he reiterated that Russian mineral resources would be central to the country’s economic development, security, and modernization through “at least the first half” of the 21st century. In Putin’s view, the only way for Russia to achieve economic growth of 4 to 6 percent per year—the tempo he deemed minimally necessary for Russia to reduce its lag behind the developed countries—was via “extraction, processing and exploitation of mineral raw resources.” This was the key to Russia’s becoming “a great economic power,” Putin believed.

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For Putin, oil and gas were also paramount politically as guarantors of the security and stability of the Russian state. As he put it, “The country’s
natural resource endowment is the most important economic and political factor in the development of social production." Furthermore, the “raw material complex” was the “basis for the country's military might” and an “essential condition” for modernization of the military-industrial complex. Finally, he believed the mineral extraction sector of the economy “diminishes social tensions” by raising the “level of well-being” of the Russian population.

Oil, Gas, and the “Putin Doctrine”

State control or outright ownership of the oil and gas industry became a central element in the “Putin Doctrine,” which postulated the recovery of the state's political, economic, and geostrategic assets following the antitotalitarian revolution of late 1987–91. The state was to become again the only sovereign political and economic actor in Russia, with the private sector, civil society, and its institutions mere objects.

Putin saw as nonnegotiable the state's control of “rent flows” from the sale of mineral resources, with nonstate property rights remaining “contingent.” Almost a decade and a half later, the authors of an influential analytical report on the composition and division of labor in the Kremlin's Politburo singled out “long-term natural gas contracts, and the management of the natural gas industry in general and Gazprom in particular” as one of only two areas “under Putin’s direct control.” (The other sector was the largest banks.)

In pursuit of this agenda, the Putin regime has effected a steady accretion of the state's sway over the oil industry. (Unlike oil, Russia's natural gas production escaped large-scale privatization in the 1990s. As a result, the majority-state-owned Gazprom dominates the sector with 78 percent of the national output and has a pipeline and export monopoly.) The key to the effective state takeover of more than half of Russian oil output was a dramatic expansion of the majority state-owned Rosneft, headed since 2010 by Putin's confidant and former KGB officer Igor Sechin. Starting as a minor company that the government tried and failed to sell in 1998 because nobody wanted it, Rosneft skyrocketed in 2004 after it took over the key assets of Russia's formerly largest and privately owned oil corporation, Yukos, which the Kremlin had bankrupted, broken up, and sold at rigged auctions.

Since Rosneft bought Russia's third-largest private company, TNK-BP, for $55 billion this past March, it has become the largest publicly traded oil company in the world by output. As a result, the state share of Russia's oil production increased from 20 percent in the early 2000s to 56 percent today, with Rosneft accounting for 48 percent of the total. The increase in the state ownership paralleled a steady rise in overall production, which reached a post-Soviet record of 10.5 million barrels per day, or 518 million tons per year, in November 2012.

For Putin, oil and gas were also paramount politically as guarantors of the security and stability of the Russian state.

The Rise of the Russian Petro-Gas State

From less than 50 percent in the mid-1990s, the share of commodities in Russian exports has grown to 70 percent today, with oil accounting for more than half of the export income. Representing up to 30 percent of the country's GDP and half of its GDP growth since 2000, hydrocarbons provided at least half of the state's budget revenues last year. Five years ago, Russia needed oil prices of $50 to $55 a barrel to balance its budget, but Alexei Kudrin, former first deputy prime minister and finance minister, estimated the breakeven price at $117 per barrel last year.

Russia's dependence on energy exports—and, consequently, its economy's vulnerability to commodity price fluctuation—was highlighted by the 2009 world financial crisis. As oil plunged from $147 to $34 per barrel, the resource-based economy contracted by almost 8 percent—the largest drop among the G20 top industrial nations.

Russia has begun to exhibit the signs of what economists call the “Dutch disease,” when overreliance on commodity exports depresses other sectors of the economy by starving them of investments and modernization while the increasing value of the national currency makes exports of other goods and services more expensive and thus less competitive in world markets. Industrial stagnation has even spread to the military-industrial complex, which, like in Soviet times, continues to be the state's favorite sector and enjoys its continuous and very generous support. Despite this, according to a recent survey, only 20 percent of the Russian defense enterprise qualified as “modern.”

As in virtually every other petro-gas state, the rise of the Russian one has been attended by corruption likely unprecedented even in the country's far-from-pristine
history. Venality and extortion have come close to subverting or even paralyzing governance, social institutions, justice, and entrepreneurial activity. In Transparency International's 2012 Corruption Perceptions Index, Russia was 133rd among 176 countries, worse than Belarus, Vietnam, and Sierra Leone and on par with Honduras, Iran, and Kazakhstan. Yet the most dangerous political legacy of the Russian petro-gas state is the centrality of oil and gas revenues, which amounted to $215 billion last year, to the loyalty of two groups that are essential for the regime's survival: the lower-income and elite segments. Trillion-ruble transfers help to maintain social peace in what is known as “Russia-2”—poorer regions, especially the volatile and increasingly violent Muslim North Caucasus, small towns and rural areas, and the rusting “monotowns” (one-company towns) of Stalinist industrialization.

The sporadic raising of meager pensions and salaries for the millions of Russians on the government payroll, including doctors and teachers (usually in the run-up to the Duma or presidential elections) is part of the same strategy. At the same time, oil and gas rents are a vital component in elite management under Putin's neopatrimonial regime: a tacit but ironclad agreement between the Kremlin and the bureaucracies from top to bottom that permits the latter to enrich themselves at the treasury's expense in exchange for their loyalty.

So long as the regime continues to regard export revenues as a palliative, if not a panacea, for economic, social, and political problems, they will impede or even obviate the need for economic and political modernization. “The problem of being a petro-state is that the natural resources trend corrupts the institutions,” said Sergei Guriev, rector of the New Economic School in Moscow and a leading expert on Russian political economy. “This is what is called the ‘resource curse.’ This is a trap, where democratic political and economic institutions do not develop because rents coming from natural resources provide incentives to the elite not to develop institutions.”

Challenges to the Status Quo: Oil

But this status quo may not be sustainable indefinitely. After two decades of essentially living off the Soviet Union's “legacy fields,” the “brownfields” (exploited deposits, as opposed to newly discovered ones, or “greenfields”) of western Siberia are “entering a long-term decline.” Although Russia is not running out of oil, a leading expert believes it may be running out of cheap oil. Instead, oil will have to be pumped from places that are “colder, deeper and more remote,” such as the continental shelf in the Arctic, the ever more remote regions of eastern Siberia, or the Black Sea.

Although Russia is not running out of oil, a leading expert believes it may be running out of cheap oil.

Yet the enormous upfront investments that such an effort would require are hard to come by when taxes on oil companies' profits have greatly reduced the incentive to invest in new technology and greenfield exploration. After they pay the profit tax, value-added tax, mineral extraction tax, asset tax, charges for the use of subsoil resources, mandatory contribution to social funds, and export duties, Russian oil companies are effectively taxed at a 70 percent rate. (By comparison, in 2011, Chevron and ExxonMobil were taxed at an effective rate of 42–43 percent in the United States.)

This policy leaves massive capital and technology transfers from Western multinational corporations as the key to sustaining the present levels of oil production. Among the more notable of such ventures was ExxonMobil's agreement last year to invest, in a joint venture with Rosneft, $3.2 billion into the exploration and development of the Black Sea and the Kara Sea in the Arctic. In addition, with Rosneft's acquisition of TNK-BP, BP ended up with almost a 20 percent stake in the Russian company. (Rosneft promptly proceeded to “borrow” $10 billion from TNK-BP subsidiaries, in the process effectively robbing minority shareholders who held shares in these firms.)

Yet such deals fall far short of what is needed to ensure Russia's continued status as an “energy superpower,” and the barriers to large-scale Western investments are formidable, if not prohibitive. Shale oil and environmentally “cleaner” liquefied natural gas (LNG) will likely push down oil prices, making greenfield investments less profitable. The worsening of relations between Russia and the West increases the risks as well. Then there is the 2008 law that restricts foreign control over companies operating in Russia's “strategic industries” (certainly including oil and gas), in effect banning non-Russian energy firms from a majority ownership of any significant venture. (In the ExxonMobil-Rosneft deal, ExxonMobil
owns only one-third of the venture.) Last but far from least, there is the memory of the Russian government’s forcing Royal Dutch Shell in 2006 to give up a controlling stake in its liquefied gas production project, known as Sakhalin-2, after Royal Dutch Shell and other members of the consortium had invested $9–11 billion in the venture over 12 years.

Tall Barriers and Belated Incentives

Russia has plenty of “tight oil,” (oil found in “low permeability” reservoirs, such as shale or tight sandstone, and usually requiring horizontal drilling and fracturing to access) including the brownfields of western Siberia. Yet its production faces severe structural constraints. Shale extraction requires technological and entrepreneurial agility (as well as strict cost control), which are associated with small and medium-sized independent companies operating in relatively benign legal regimes.33 Instead, Russian shale oil is likely to be developed by the giant Rosneft, which is hampered by very strict regulations.

Absent an expansion into new fields or the successful adoption of new technologies for maintaining the old ones, Russia’s production may shrink by as much as one-fifth, from the current 10.4 million BPD to 8 million BPD as early as 2020.34 In the opinion of a top expert, Thane Gustafson, sometime in the coming decade, the Russian state “could well see oil revenues decline, even as its reliance on them grows,” and the “tide of money” that has enabled the Kremlin to meet “everyone’s growing expectations” may vanish.35

In the last two years, the growing awareness of such gloomy eventualities has prompted the Kremlin to ease the tax burden on oil companies to stimulate investment in exploration and new technologies. In 2011, the government lowered crude oil export duties from 65 to 60 percent.36 Tax relief seems also in the cards for shale and other “tight rock” energy production, as present draft legislation aims to reduce the mineral extraction tax to between 50 and 100 percent of the current tax.37 In May 2012, Putin also suggested tax incentives for exploring offshore oil reserves.38

Challenges to the Status Quo: Gas

Even more than Russian oil, natural gas rents are likely to shrink significantly in the coming years. In addition to Gazprom’s notorious corruption and mismanagement—Transparency International ranked it among the least transparent companies in the world39—funds available for investment are reduced by the politically dictated subsidization of domestic gas prices: Gazprom sells 60 percent of its gas domestically at a loss.40 The hope for increased profits following a 15 percent rise in the prices of heating and cooking gas as part of this year’s “utilities reform” have been dashed by Putin’s limiting the utilities hikes to 6 percent. This price control is estimated to further reduce Gazprom’s profits by more than $300 million a year.41

Gazprom’s modernization and greenfield investments are also hampered by enormously expensive projects that seem motivated more by the Kremlin’s geostrategic ambitions than by a search for profitability. Thus, in an effort to bypass Ukraine, Gazprom completed the Nord Stream twin pipeline system under the Baltic Sea in October 2012 and launched the South Stream project, which includes a stretch under the Black Sea, in December 2012. The price tag for both projects is around $40 billion.42 In the beginning of April of this year, Putin ordered Gazprom to revive the Yamal-Europe-2 project, which would construct yet another gas pipeline bypassing Ukraine, from the Belarusian border via Poland to Slovakia.43

The immediate challenge to natural gas rents, however, is a sharp loss of profit because of the competition from alternative modes of production made possible by new technologies. The latter includes “horizontal drilling” to tap shallow but broad deposits and hydraulic fracturing (or “fracking”) when sand, chemicals, and water, gel, or liquefied gases are injected under great pressure into shale rock formations to extract gas and oil. As a result, over the last decade US gas imports have shrunk by 45 percent. By contrast, Gazprom has yet to start tapping these resources. Instead, the company’s president, Alexei Miller, has repeatedly decried shale gas as a “myth” and a “well planned propaganda campaign.”44

The drop in US imports has freed up large volumes of natural gas and lowered prices on the world market. In addition, LNG transported by tankers from the Middle East has increased significantly, Europe’s reliance on LNG has expanded, and Europe’s LNG infrastructure has grown. The rapidly changing supply and price structure will be further altered by a possible (or even probable) transformation of the United States from an importer to an exporter of natural gas.

Among the most notable casualties of an increased supply and lower prices has been the Shtokman natural gas field in the Arctic Barents Sea, one of the world’s largest. Last August the members of the consortium—
Gazprom, France’s Total, and Norway’s Statoil—quietly abandoned the project, which was to produce LNG to export to the United States, because it became unprofitable.

The Shrinking European Market

To make up for domestic corruption and inefficiency, Gazprom needs large profit margins in Europe, where it used to sell gas at a 66 percent profit.\(^4\) Just to break even, the firm needs to earn $12 per thousand cubic feet. By comparison, natural gas is sold at below $3 per thousand cubic feet in the United States today.\(^4\) Even with the liquefaction and transportation costs, widely anticipated US exports of LNG to Europe are likely to cut deeper still into Gazprom’s margins.\(^4\)

Meanwhile, the lower prices have forced Gazprom, which last year supplied a quarter of European gas, to renegotiate delivery prices to levels closer to those in the spot markets, where commodities are traded for cash for immediate delivery and where prices have dipped as low as half of those in Gazprom’s long-term contracts.\(^4\) In addition, the Russian natural gas behemoth has begun to grant as much as a 10 percent discount on existing contracts.\(^4\) Still, Gazprom saw its exports to Europe go down by 8 percent in 2012, to the lowest level in a decade.

Meanwhile, the sales of Gazprom’s main competitor in Europe, Norway’s majority-state-owned Statoil, are up 16 percent. The disparity is largely due to Statoil’s more flexible pricing that brought at least half of its contracts down to the spot market level.\(^5\) For the first time, Statoil is catching up to Gazprom’s diminishing sales in Europe, exporting 88 billion cubic meters of natural gas as compared to Gazprom’s 113 billion cubic meters.\(^5\) In the first nine months of last year, Gazprom’s profits fell by 12 percent compared to the same period of last year, and operational costs increased by 18 percent.\(^5\) Overall, between 2008 and 2012, Gazprom lost 53 percent of its market value.\(^5\)

Europe is becoming less hospitable legally and politically as well. Last year, the European Commission started an antimonopoly investigation of Gazprom, including possible price fixing. Should Gazprom be found in violation of antimonopoly laws—a very distinct possibility—it will have to open its pipelines to competitors, alter its “pricing formula,” in which the price of gas is linked to that of oil, and pay up to $14 billion in fines.\(^5\) Further aggravating the situation, last September, Putin issued a decree prohibiting Gazprom from cooperating with the EU investigators.

Uncertain Alternatives to Europe

Gazprom has been attempting to make up for the decreasing prices and shrinking demand in Europe by increasing sales to the East, most of all China, but the prospects are uncertain at best. China already imports far cheaper gas from Turkmenistan via a recently constructed pipeline.\(^5\) Furthermore, with the estimated largest deposits of shale gas in the world, China could well be close to self-sufficiency by the time the currently planned pipeline from Eastern Siberia materializes.\(^5\) As a result, Russia and China have repeatedly failed to agree on the price for the putative imports.\(^5\)

Despite the uncertainty, Putin has directed Gazprom to develop for export to China the giant virgin Chayandinsk field in Yakutia in northeastern Siberia. With the construction of a pipeline to Vladivostok and a LNG plant there, the project is estimated to cost $40–65 billion, likely pushing the delivery price to as high as $15 per million British thermal units (BTU), a universal energy equivalent compared to $3 per million BTU in the United States.\(^5\)

To make up for domestic corruption and inefficiency, Gazprom needs large profit margins in Europe.

Similarly, shale gas appears to obviate any prospects for increasing Gazprom sales to Ukraine, the second-largest European consumer of Russian gas after Germany. By the time Ukraine’s current contract with Russia runs out in 2019, Russia’s southwestern neighbor, which last year bought 33 billion cubic meters of gas from Gazprom, may see its needs for Russian gas significantly, if not dramatically, reduced. At 1.2 trillion cubic meters (42 trillion cubic feet), Ukraine has Europe’s third-largest shale gas reserves, and this past January Kiev signed a $10 billion deal with Royal Dutch Shell to extract shale gas from a field in Eastern Ukraine. Although, as with other European shale gas prospects as a whole, the Ukrainian deposits are not likely to be developed as quickly as those in the United States, the project (which is estimated to produce between 7 billion cubic meters and 20 billion cubic meters within five years) is an important step toward reducing Ukraine’s energy dependence on Russia.\(^5\) In the meantime, seeking to further lessen its dependence on Gazprom, last year Ukraine began to buy...
more natural gas from Germany (via Poland and Hungary) and LNG from terminals in Turkey (via Bulgaria and Romania). Kiev is also looking to triple extraction from the Black Sea to 3 billion cubic meters by 2016 and plans to build a LNG terminal to process 10 billion cubic meters from either Qatar or Azerbaijan.

Signs indicate that the Kremlin may be preparing to significantly reduce Gazprom’s role, with an eventual absorption into the omnivorous Rosneft a distinct possibility. The head of Rosneft, Igor Sechin, has already suggested splitting the formerly sacrosanct “national champion” into extracting and transporting companies. (As a leading Russian daily put it, “Gazprom is being readied for a surgery.”) Rosneft is planning to raise its natural gas output to 100 billion cubic meters (3.5 trillion cubic feet) by 2020—this is over 20 percent of the Russian gas market. In addition, Rosneft and Russia’s largest privately owned natural gas company, Novatek, are said to be joining forces to break Gazprom’s export monopoly by working on an LNG project from Arctic fields. (Rosneft is also reportedly talking with Exxon-Mobil about constructing a liquefied natural gas plant for exports to Asia.)

The Urgency of a “New Model of Economic Growth”

To Putin’s Kremlin, which like all restoration regimes is preoccupied almost exclusively with the here and now rather than a long-term strategy, the political implications of diminished oil and gas revenue may seem distant and avoidable. Indeed, Russia’s macroeconomic position today is quite solid. The country’s budget is balanced; hard currency reserves are second only to China’s; inflation, while rising, is still among the lowest levels in the country’s post-Soviet history; and the public debt is only 12.2 percent of the GDP. And of course, as a leading expert puts it, there is still enough oil for the regime to feel “comfortable.”

Yet, even apart from the all-but-inevitable and significant diminution in energy export revenues, the dangers of the Russian economy’s continuing and growing reliance on gas and oil have been increasingly obvious both to government and independent experts. Six weeks ago in Moscow, I was struck by a wide consensus that an average 3 percent growth since 2009 (and projected for this year as well) is totally inadequate to address the country’s social, economic, political, and demographic problems. “The 3 percent of economic growth satisfies no one,” wrote a leading Russian political daily. “If we want to be competitive, to be able to solve social problems, Russian economy must grow faster than the world’s average,” Putin said this past January. Since then, the Russia’s growth estimate for 2013 has been revised down to between 1.8 and 2.3 percent, with the same “anemic” growth predicted for at least the next few years.

Another element of the consensus I found was the need for “a new model of economic growth” to replace the current energy-based structure. Within the current economic model, according to Grigory Yavlinsky, an opposition leader and economist, significant investments geared toward long-term returns—without which diversification is impossible—are “enormously risky, often bordering on insane.” Furthermore, the centrality of commodity exports means a dangerous dependence on commodity prices, as the GDP plunge during the 2008–09 world financial crisis demonstrated. The country must modernize and diversify. Even Putin and Medvedev have paid lip service to the urgency of transforming the country’s economy from one that is extraction-based to one founded on technological innovation.

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Yet, everyone also seemed in agreement that such a transformation is at least as much a political problem as an economic one. Oil and gas dependence renders political and social institutions all but impervious to modernization. Modernization and diversification, watchwords in Moscow, are impossible without enormous and potentially short-term destabilizing institutional change. Diversification requires “good political institutions,” argued Sergei Guriev: property-rights protection, independent, competent and fair courts and good financial markets—none of which Russia has today at even a minimally sufficient level.

At least in the short run, reducing dependence on oil and gas revenue will mean sweeping and politically fraught reforms in welfare and pension systems and cutting back on subsidies to Russia’s poorer regions, the monotowns, and unprofitable industries. It would also mean a sharp reduction in military expenditures, instead
of embarking on the $770 billion, 10-year “rearmament” program announced by Putin last year.\textsuperscript{70} Moving away from gas and oil must also entail overhauling the taxation system, filled with ad hoc tax breaks for the state’s “pet projects,” and replacing it with a predictable “profit-based” system,\textsuperscript{71} which will assure potential foreign and, most importantly, domestic investors, who last year took over $56 billion out of the country.\textsuperscript{72} If fully implemented, such reforms will erode the Kremlin’s control over the economy, courts, and, inevitably, politics.

**No Good Options for the Kremlin?**

The alternative is to maintain the present economic and political arrangements in the hope of another spike in oil prices, perhaps as a result of a Middle East war caused by Iran’s pursuit of nuclear weapons. The Kremlin’s clear preference for the status quo over far-reaching reform was reaffirmed by Dmitry Medvedev’s presidency, with its often-soaring liberal rhetoric and virtually no practical steps toward implementation.

Finally, among the most destabilizing consequences of the continuing dependence on oil and gas will be the Kremlin’s declining ability to secure the elites’ loyalty. Fiercely protective of their share of the politically apportioned riches of Russia’s state capitalism, powerful clans will squabble to secure the same share of a diminishing pie, in the process threatening the stability of the regime. “Putin’s unchallenged power” rests on a tripartite foundation: “oil and gas money, the Federal Security Service, and television,” a Russian observer noted last December.\textsuperscript{75} Today, one leg of this tripod is beginning to look wobbly.

These may not be the challenges of tomorrow or the day after. Yet in the medium term and longer term, trends in technology and the global economy, as well as the country’s own economic, social, political, and demographic dynamics, seem to have conspired to leave the Kremlin no good, risk-free choices.

*I am grateful to research assistants Daniel Vajdic and Katie Earle, editor Christy Sadler, and designer Claude Aubert for assistance in editing and producing this Outlook.*

**Notes**

3. Ibid., 49.
4. Ibid., 50.
5. Ibid., 51.
minchenko.ru/netcat_files/File/Big%20Government%20and%20the%20Politburo%202_0.pdf. Emphasis is in the original.


14. Ibid.

15. Gustafson, “Russian Oil Industry at a Crossroads.”


24. As quoted in Meyer and Lovasz, “Russia Faces.” A distinction should be made between the “Dutch disease” and the “resource curse” of petro-states. Although both stem from the same source of highly valued commodity exports, the Dutch disease refers mostly to economic consequences of overreliance on commodity exports (such as an overvalued currency, decline in manufacturing, and drop in noncommodity exports) and not to the corruption of political and social institutions. The Dutch disease may strike solidly democratic states without subverting their political and social order. By contrast, in transitional or unstable democracies the “resource curse” almost inevitably corrupts institutions, hampers democratic progress, and bolsters authoritarianism, as, for instance, in Russia or Venezuela.


26. Ibid.

27. Gustafson, “Russian Oil Industry.”


32. Ibid.

71. Gustafson, “Putin’s Petroleum Problem.”


