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# RUSSIA'S LONG PIVOT EAST

Nicholas Trickett

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Author: Nicholas Trickett

Eurasia Program Leadership

Director: Chris Miller
Deputy Director: Maia Otarashvili

Edited by: Thomas J. Shattuck
Designed by: Natalia Kopytnik

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## About the Author

Nicholas Trickett is an Associate Scholar in the Eurasia Program at the Foreign Policy Research Institute. He is also acting Editor-in-Chief for Global Risk Insights, and has written for *The Diplomat, Aspenia*, the *Washington Post*, and *Oilprice*, among other outlets. Trickett received a BA in Comparative Literature and Philosophy from Haverford College, an MA in Russia and Eurasian Studies from the European University in St. Petersburg, and attended the London School of Economics where he read for an MSc in International Political Economy. He currently works as a consultant for Wood Mackenzie.

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# Russia's Long Pivot East

Nicholas Trickett

## Executive Summary

The rise of Asian oil demand over the last 20 years has prompted the Russian Federation to seek opportunities to export to the People's Republic of China and other growing markets. Since 2013, this trend has been branded alternately as part of a Russian "pivot to Asia," as part of a deepening alignment between Russia and China and as a source of market competition between Russia and the Kingdom of Saudi Arabia. Concern over the growing ties between Russia and China has concerned many policymakers.

Yet, even amid strengthening economic relations, Russia's energy provision to China has not been a resounding success story. True, oil exports to China have grown consistently since 2010, but a broader view of Russia's oil sector since 2000 tells a different story. Russia has struggled to keep pace with shifting supply and demand balances because of high tax rates on the oil sector; policy chaos; compromise between budgetary, sector, and foreign policy needs; and market forces. Though Moscow has become China's leading source of oil, the structural domestic and market challenges facing its oil sector threaten the long-term sustainability of Russia's export gains in China and the Asia-Pacific.

# Putin's Good Fortune


(Adobe Stock)

Since 2000, the Russian Federation has gone from shipping almost no oil via the Far East to around 1.5 million barrels per day (bpd) to the People's Republic of China alone as of June 2019.[1] The shift in the export balance between Europe and Asia happened steadily, but not smoothly. High taxes on oil projects long have dogged the sector's ability to invest in newer production because the state collects most of the earnings above production costs. Firms see their marginal earnings decline as prices rise, disincentivizing investment when prices are high and incentivizing it when they are lower.

Between 2000 and 2008, oil prices steadily rose. One would expect oil production to follow suit, yet Russian production growth stagnated after 2004-2005. It did resume growth as prices rose after the 2008 crash, but at a very slow rate. Other factors had influence—namely the lack of domestic experience and technology for certain types of projects, as well as export competitors' investments—but domestic taxation constrained the sector's ability to increase production to meet rising demand on a favorable market between 2000 and 2014-2015. These constraints can be traced back to the decision to levy high taxes on the oil sector to generate large revenues early in Vladimir Putin's first term.

Russia's oil industry struggled through the 1990s, with production steadily dropping. But an economic crisis offered relief. In 1998, Russia experienced a shock as investors panicked. Signals that the Central Bank was going to devalue the ruble, corporate bankruptcies, and high inflation spooked the market, leading to a stock market crash and a default on ruble-denominated debts. The Central Bank was forced to let the ruble devalue from about 5.7 rubles to the dollar to roughly 27 rubles to the dollar.[2] Oil firms' profits spiked as a result since oil exports are settled in dollars. Corporate restructuring and market-based reforms from Yukos, then Russia's

1 Meng, Meng, and Aizhu Chen. "Russia Leads as Top Crude Supplier to China, Overtakes Saudi." *Reuters*, June 25, 2019, https://www.reuters.com/article/us-china-economy-trade-crude/russia-leads-as-top-crude-supplier-to-china-overtakes-saudi-idUSKCN1TQ1MS.

2 Central Bank of the Russian Federation (2019). *Dynamics of the official exchange rates*. Moscow.

second-largest producer, also began to lower production costs.[3] Production bottomed out in 1998 during the default at 5.86 million bpd, but had recovered to 6.25 million bpd by 2000.

When Putin stated at his first inauguration that "we have one goal: the dignity of [our] country and the prosperity of [its] citizens," the Russian state faced considerable challenges achieving and improving both.[4] Systemic tax arrears, conflicts between regional and federal law, and low revenues—total Russian tax revenues hovered around $35.6 billion in 2000—hamstrung attempts to launch reforms and improve public services.[5] Luckily for the Kremlin, oil was trending upward, providing billions in higher export earnings over 2000 and 2001.[6]

Rising production levels provided a solid foundation as policy choices were weighed.[7] Moscow had a problem: Russian oil companies calculated their own tax rates based on their production as of 2000.[8] Market signals for a sustained recovery and then rise in oil prices in 2000-2001 brought the issue of oil firms skimping on taxes into particular focus as significant revenues would be lost without reform. The market environment was increasing the relative value of Russia's oil wealth at a time when the state was desperate to increase revenues.

3 "Russian Oil Major Yukos Implements Western-Style Reorganization." 1999. *Oil & Gas Journal*, https://www.ogj.com/home/article/17230905/russian-oil-major-yukos-implements-westernstyle-reorganization.

4 "Speech at the Reception on the Occasion of Inauguration for the Post of the Presidency." 2000. *President of Russia*, http://kremlin.ru/events/president/transcripts/24104.

5 The World Bank. 2019. "Data." Washington, D.C., https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS?locations=RU.

6 Central Bank of the Russian Federation (2019). "External Sector Statistics." *Petroleum Product Exports*. Moscow.

7 Organization for Economic Co-operation and Development. 2019. "Energy - Crude Oil Production." Paris: OECD.

8 Vygon, Grigory, Anton Rubtsov, Sergei Klubkov, and Sergei Yezhov. 2015. "Oil Industry Tax Reform: Key Choices." https://vygon.consulting/upload/iblock/6b7/vygon_consulting_upstreamtaxreform.pdf.

# Taxing Russia's Oil Wealth

The question facing policymakers was daunting. How could the state effectively increase its power to tax and expand its revenue base when so much of the economy remained in the shadows and institutions were relatively weak? Oil taxation was an attractive answer.

Personal income tax revenues in Russia were worth just 2.9% of gross domestic product (GDP) in 2001 when changes began taking effect, and there were few effective means to recoup most of the tax revenues lost to the informal economy.[9] Though many applauded the tax cuts that were meant to bring economic activity out of the shadows, tighter enforcement of tax collection and higher tax earnings did not have nearly as pronounced a revenue impact as rising oil prices and Moscow's decision to raise oil revenues.[10]

Exports were primarily necessary for financial needs. Higher export levels meant higher tax earnings and a stronger external financial position. The Duma passed an oil sector tax overhaul that took effect January 1, 2002. It raised Mineral Extraction Taxes (MET) and export duties, both of which were calculated in relation to export prices for Russia's Ural crude blend.[11] Tax schemes refunding capital invested into exploration were cut.[12] This cut discouraged companies from taking risks exploring and developing new deposits without financial support from the state. Investments into exploration and development were now much riskier if they didn't yield production.

Russia saw rapid production growth until 2006, driven by privately owned firms using Western oil field service providers. The new tax system incentivized maximizing production at existing fields, not launching new ones. Once core fields saw large efficiency gains, the sector needed large volumes of new investments to maintain production increases.

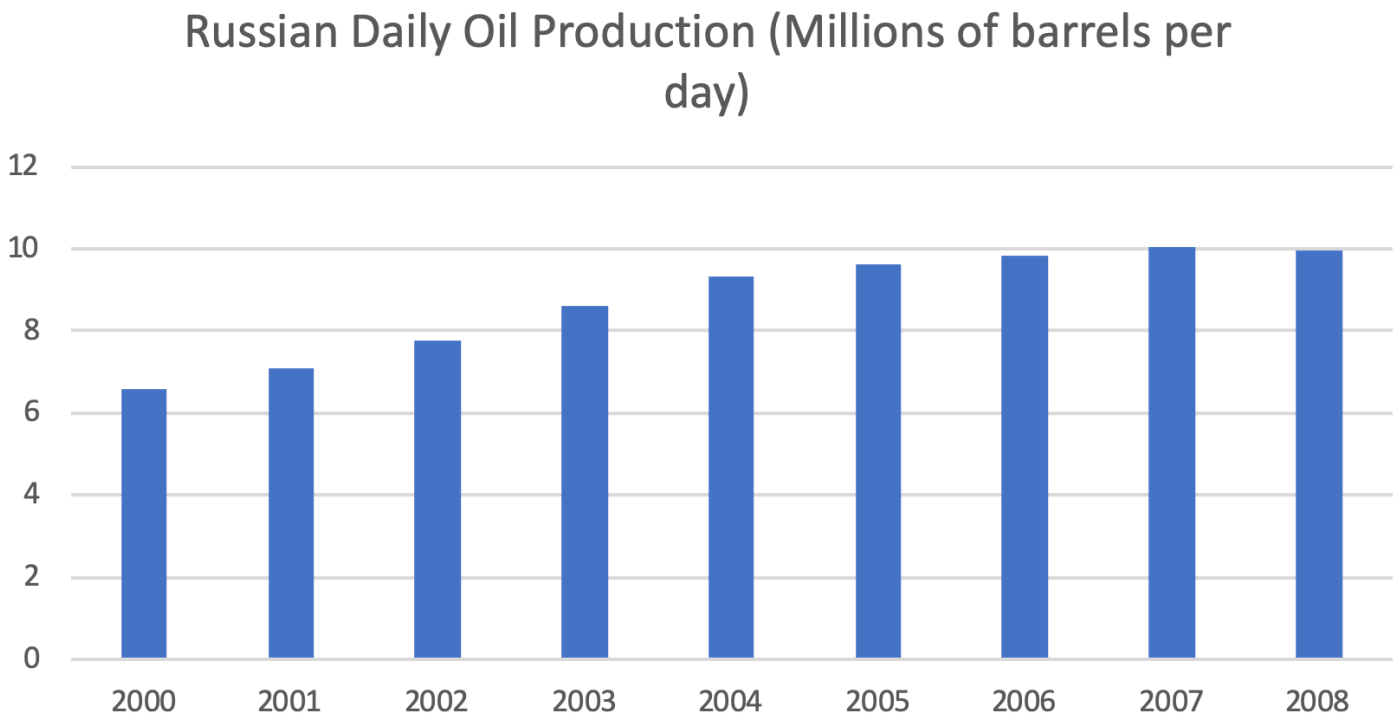
The state opted to seize the commanding heights of the oil sector. Two of Russia's largest, most successful private oil companies—Yukos and Sibneft—were nationalized. Both firms had spearheaded Russia's rising production volumes by adopting Western techniques to maximize output and generate return for shareholders. Russia's state firms did not take the same approach as they took over their assets, affecting management and investment strategies. This sequence of events coincided with the first visible signs Asian oil demand was beginning to impact Russia's export priorities. Oil taxation and the expansion of control over Russia's oil wealth were the primary solution to the revenue problem facing the Kremlin in 2000-2001. The decision to do so would have a series of unintended consequences as Asia-Pacific oil demand changed the market in the following years.

9 Gaddy, Clifford, and William Gale. 2005. "Demythologizing The Russian Flat Tax." *Brookings Institution*, https://www.brookings.edu/wp-content/uploads/2016/06/20050314gaddygale.pdf.

10 Nygaard, Christian. 2011. "Russia's Oil And Gas Policy." in *Are Resources A Curse? Rentierism And Energy Policy In Post-Soviet States*, 1st ed. Opladen and Farmington Hills, MI: Barbara Budrich Publishers.

11 Among Russia's crude oil blends, Ural blend is the primary mark for export. The blend is set largely from Soviet-era legacy fields in Western Siberia.

12 Nygaard, 2011.


Russian Daily Oil Production (Millions of barrels per day)
12
10
8
6
4
2
0
2000
2001
2002
2003
2004
2005
2006
2007
2008

# The East Siberia-Pacific Ocean Pipeline and the Geography of Demand

Though Russia was first identified as "pivoting" to Asia in 2013, it takes years and decades for regional balances of oil supply and demand to shift. Given this fact, when did the Russian oil sector's "pivot to Asia" actually start? Rather than 2012-2013, it started in 2002-2003 due to rapid demand growth and rising oil import dependence in developing Asia-Pacific economies. Oil markets had evolved considerably since the Cold War context that shaped the Soviet oil sector. Between 1972 and 2002, European and U.S. oil demand grew only about 4.5 million bpd. Asia-Pacific demand had grown 14 million bpd, and given the higher energy intensity and lower energy efficiency of its economies, future demand growth was driven by markets Russia historically had not served. [13]

The Russian oil sector was looking for new customers. Serving new customers and expanding to new markets meant developing oil fields further east outside of its traditional production base in Western Siberia. After the collapse of the Soviet Union, oil deposits on Sakhalin Island were the only significant new source of oil developed in Russia facing Asia-Pacific markets. The production sharing agreement (PSA) for the project was signed by a consortium of Japanese firms with Rosneft and America's ExxonMobil in 1996.

The Sakhalin PSA was significant because Russia's oil export infrastructure was, until that point, entirely geared towards European markets. To that point, Russian oil exports to Asia either traveled by rail to China or were loaded onto tankers in Novorossiysk on the Black Sea. These routes put its products at a significant price disadvantage compared to exporters with better logistical access.

Yukos began exporting over 100,000 barrels of oil per day to China by rail, and initiated talks with Chinese counterparts in 2003 to build an oil pipeline from Angarsk in Western Siberia to Daqing. It did this without coordinating with the Kremlin.[14] The initial 2003 deal would have built a dedicated pipeline serving the Chinese market, undermining Moscow's ability to use the prospect of oil and gas exports to balance Japan and China against each other. The following supply deals associated with the pipeline would have provided an estimated 600,000 bpd. Yukos simultaneously sought to sell 25-40% of its shares to ChevronTexaco or ExxonMobil.[15] Both of these developments compromised the state's political control over key projects and deals.

Because Yukos' China gambit undermined Moscow's ability to play China and Japan off each other politically and economically, the state punished Yukos by arresting CEO Mikhail Khodorkovsky on politically motivated charges that laid the groundwork for Yukos' eventual nationalization.[16] Japan exploited the moment to compete with China for influence.[17] Tokyo offered $5 billion in financing for the East Siberia-Pacific Ocean (ESPO) pipeline, which would run to an

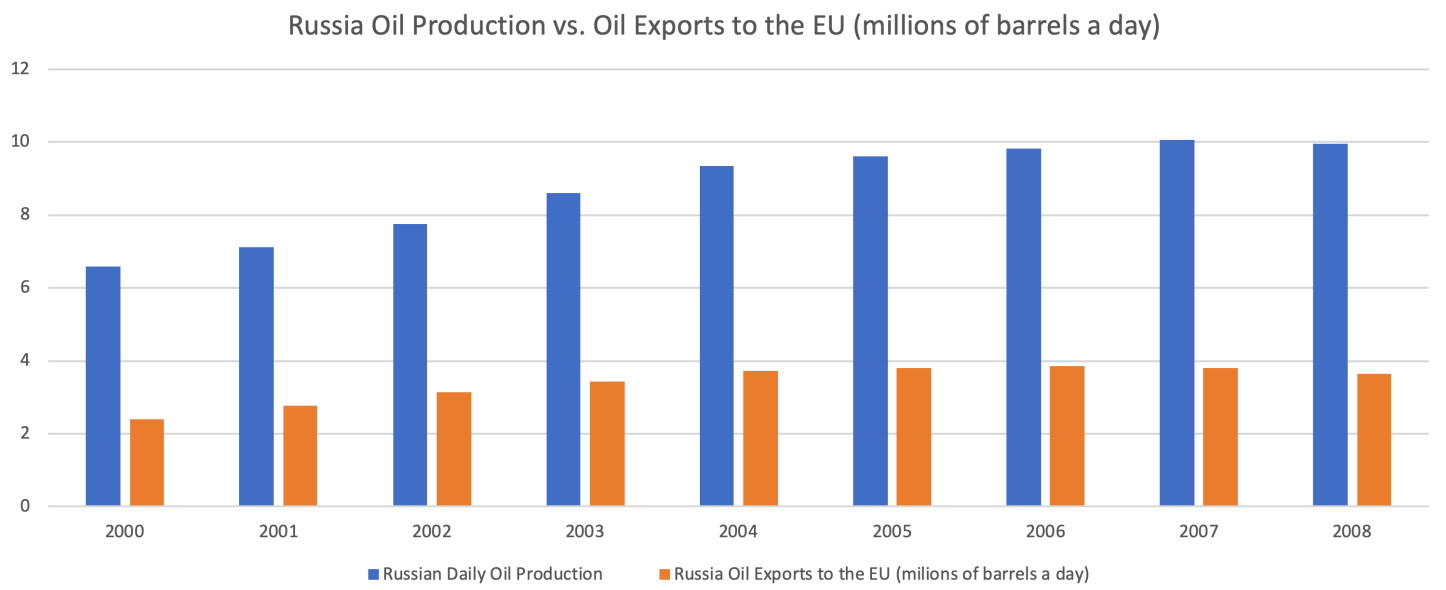
13 "Statistical Review Of World Energy | Energy Economics | Home." 2019. *BP Global*, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html.

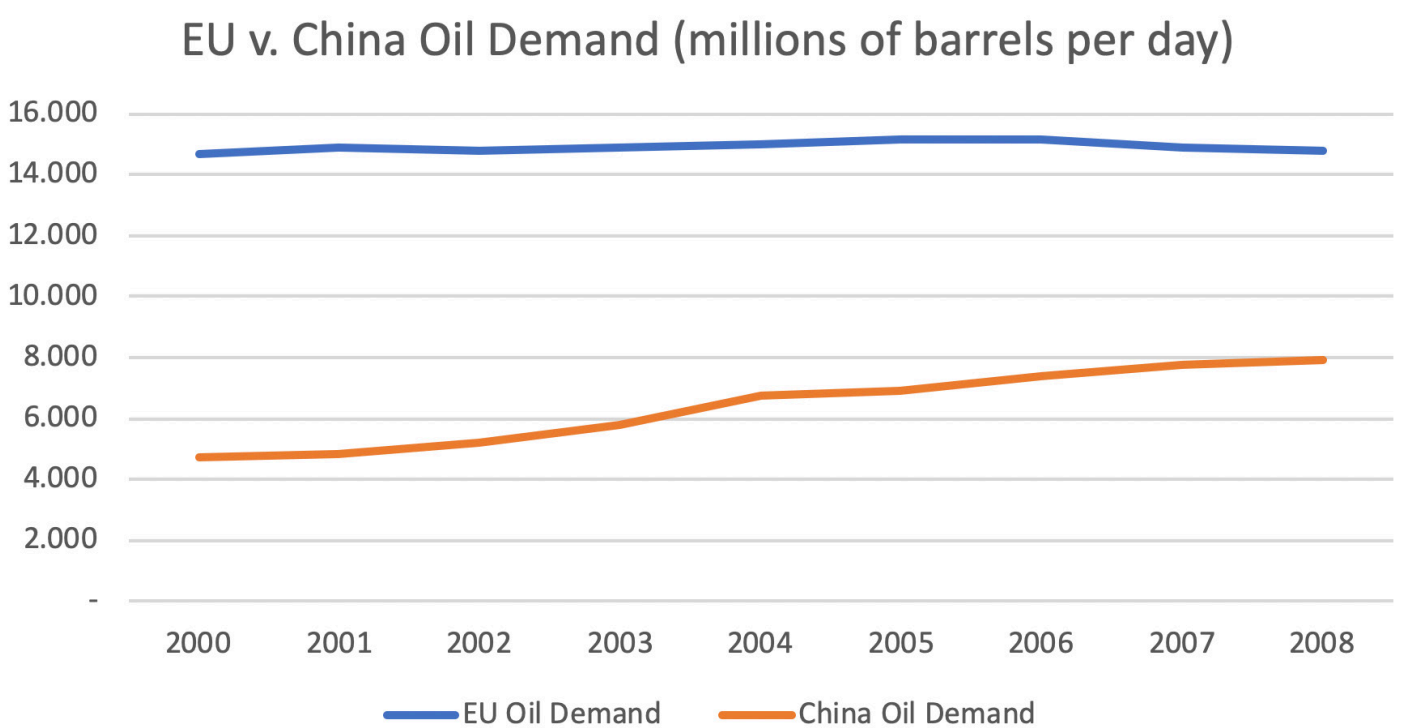
14 Barnes, Andrew. 2010. "Russian-Chinese Oil Relations: Dominance Or Negotiation?" *PONARS Eurasia* Policy Memo No. 124, http://www.ponarseurasia.org/sites/default/files/policy-memos-pdf/pepm_124.pdf.

15 Olcott, Martha Brill. "The Energy Dimension in Russian Global Strategy: Vladimir Putin and the Geopolitics of Oil." *Baker Institute Energy Forum*, 2004, https://carnegieendowment.org/files/wp-2005-01_olcott_english1.pdf.

16 Goldman, Marshall I. "Putin and the Oligarchs." *Foreign Affairs* vol. 83, no. 6 (2004), https://doi.org/10.2307/20034135.

17 Chow, Edward. "Russian Pipelines: Back to the Future?" *Georgetown Journal of International Affairs*, 2004, https://carnegieendowment.org/pdf/files/chowarticle-jan04.pdf.


Russia Oil Production vs. Oil Exports to the EU (millions of barrels a day)
12
10
8
6
4
2
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
Russian Daily Oil Production
Russia Oil Exports to the EU (milions of barrels a day)


EU v. China Oil Demand (millions of barrels per day)
16.000
14.000
12.000
10.000
8.000
6.000
4.000
2.000
-
2000
2001
2002
2003
2004
2005
2006
2007
2008
EU Oil Demand
China Oil Demand

export outlet at Nakhodka near Vladivostok. The Kremlin preferred the flexibility afforded by this option, and by the end of 2004, a deal was struck for the Nakhodka route rather than Yukos' original proposal.[18]

The project's first phase was commissioned in 2009 and cost over $13 billion, creating roughly 600,000 bpd of export capacity linked to Eastern Siberian oil fields. ESPO was Russia's first major piece of dedicated infrastructure serving Asia-Pacific markets, a shift for the sector away from its total reliance on European markets. While Japan had prevented China from monopolizing the pipeline's capacity with offers of financing, China National Petroleum Corporation (CNPC) concluded negotiations with Russia's oil pipeline monopolist Transneft to build a 300,000 bpd spur from ESPO running to Daqing in Heilongjiang province in late 2008.

This initial Eastward pivot came alongside a failed attempt at gaining market share elsewhere. Yukos, Lukoil, Surgutneftegaz, Sibneft, and TNK proposed a large export pipeline and terminal in Murmansk in 2002 in hopes of meeting part of the United States' rising import needs.[19] However, the proposal hit a political problem: the state-owned oil pipeline monopolist Transneft wanted to preserve control over all export pipeline infrastructure, while oil firms wanted to take majority ownership of the pipeline and operate it.[20]

This project wasn't clearly necessary on economic grounds without significant subsidization and lingered in limbo for several years as the state and Transneft preferred to maintain control over all export pipelines and prioritized spending elsewhere. Expansions of capacity at ports on the Baltic made more financial sense, linking most closely with Russia's dominant production base in Western Siberia and building off investment plans first made in the late 1990s. Crude oil throughput via Baltic ports more than tripled between 2000 and 2009—from roughly 418,000 bpd to 1.4 million bpd—largely due to capacity added to the Baltic pipeline system in 2001.[21] That throughput increase alone was equivalent to 48.3% of Russia's export increased between 2000 and 2009—from roughly 2.9 million bpd to 5 million bpd.[22]

The Druzhba pipeline to Europe could export 1.4 million bpd, providing most of the rest of Russia's 5 million bpd of exports in 2009. A new pipeline reaching Novorossiysk on the Black Sea was financed by the Caspian Consortium, but served Kazakh production. Russian firms invested in Kazakhstan's upstream benefited, but not Russia's domestic production base and export capacity.

Russia didn't have any significant export capacity directly linking it to Asia-Pacific markets during the commodity boom of the early 2000s, and missed any opening to export to the United States while U.S. production hit its nadir. But the opening of the route, and the pipelines to China that would follow, responded to structural changes in global oil demand.

18 Konończuk, Wojciech. "The East Siberia/Pacific Ocean (ESPO) Oil Pipeline: a Strategic Project – an Organisational Failure?" *CES Commentary*, no. 12 (October 22, 2008).

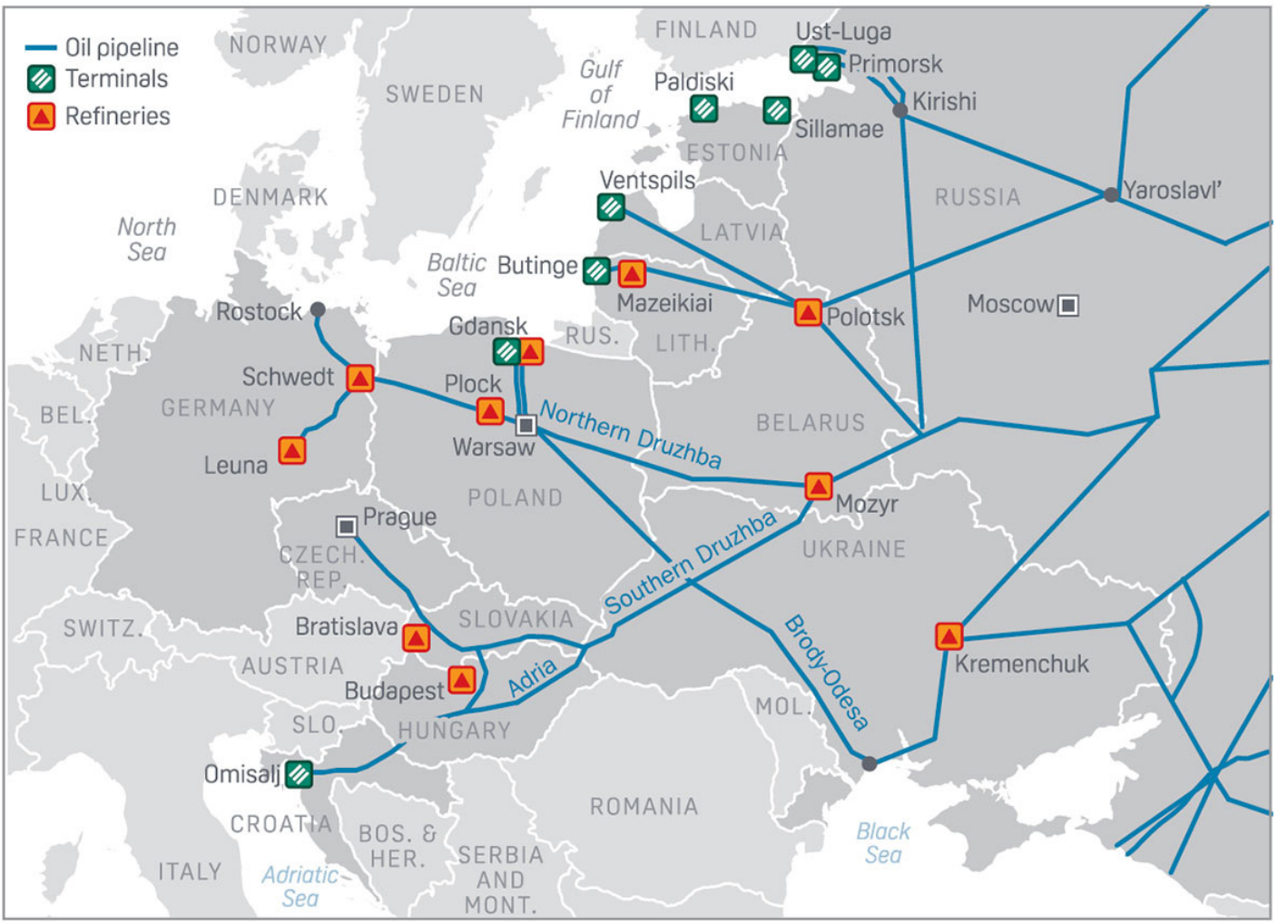
19 "Oil companies are prepared to guarantee supplies via pipeline to Murmansk. MinEnergo proposes sending 150 million tons a year." Scholar-educational portal IQ. HSE, July 10, 2003, https://iq.hse.ru/news/177761196.html.

20 Brill, 2004.

21 Vatansever, Alex. "Russia's Oil Exports: Economic Rationale vs. Strategic Gains." *Carnegie Papers - Energy and Climate Program* 116 (December 2010).

22 Ibid.

# CENTRAL EUROPE'S OIL INFRASTRUCTURE




Source: S&P Global Platts

# Production Concerns Emerge

Funneling the earnings from rising oil prices to the state bolstered the budget, but were firms earning enough to keep investing in new production? The runup to the Global Financial Crisis (GFC) in 2008 exposed how bad the tax reform was for investment meant to sustain and develop oil production. Output stagnated despite rising prices. The assets linked to Yukos and Sibneft already had been maxed out for production gains by 2005, and taxes kept rising with prices. This dynamic—tax rates rising with prices—was ill-suited to encourage investment during the higher price environment that, aside from the downswing during the GFC, lasted from 2006 to 2014. The tax code was disincentivizing investments right when firms normally would seek to convert higher earnings into new production to meet rising demand. The construction of export infrastructure serving the Asia-Pacific required investment in new production to avoid redirecting oil flows from European customers.

Other factors, such as rising investment into oil production in the United States and other countries, the difficulty of doing business, and the unattractiveness of Russian projects, impacted production as well. However, the tax code was the primary brake on growth. It had been adopted in a significantly lower price environment without the expectation that high prices would stick for so long.[23] There had been little reason to foresee that effective tax rates for many projects would climb towards or beyond 100%.[24] The 2001 tax reform accidentally locked in the state's budget dependence and undercut investments to sustain and expand production.

Oil prices increased between 2005 and 2008, peaking above $147 a barrel in July 2008.[25] Russian firms struggled to invest because their effective tax burden exceeded 90% of their profits as oil markets reacted.[26] State revenues increased, but at the expense of new production. Though Siberian oil fields were not that much more capital intensive than oil fields in the Middle East, Arctic projects and Russian offshore projects on Sakhalin were the world's most capital intensive to develop among all conventional sources of oil.[27] Western Siberian fields were relatively cheap, but entering systemic decline while the new reserves needed to offset production losses were much more expensive to develop. Efficiency improvements and tax relief were needed.

The Ministry of Finance extensively studied the impact of Russia's fiscal regime on the oil sector in 2009-2010 and hoped to scare the presidential administration to offer tax cuts.[28] Per its findings, Russia's production base was barely profitable even with prices hovering around $100 per barrel, and production would enter decline as soon as 2015. To stabilize output and revenues, the ministry proposed cutting export duties, eliminating export preferences for refined products, systematizing regional tax breaks and lowering rates, and moving towards a profits-based tax regime for new projects. Yet, despite

23 Gaddy, Clifford G., and Barry William Ickes. "Russia's Declining Oil Production: Managing Price Risk and Rent Addiction." *Eurasian Geography and Economics* vol. 50, no. 1 (April 23, 2009): pp. 1–13.

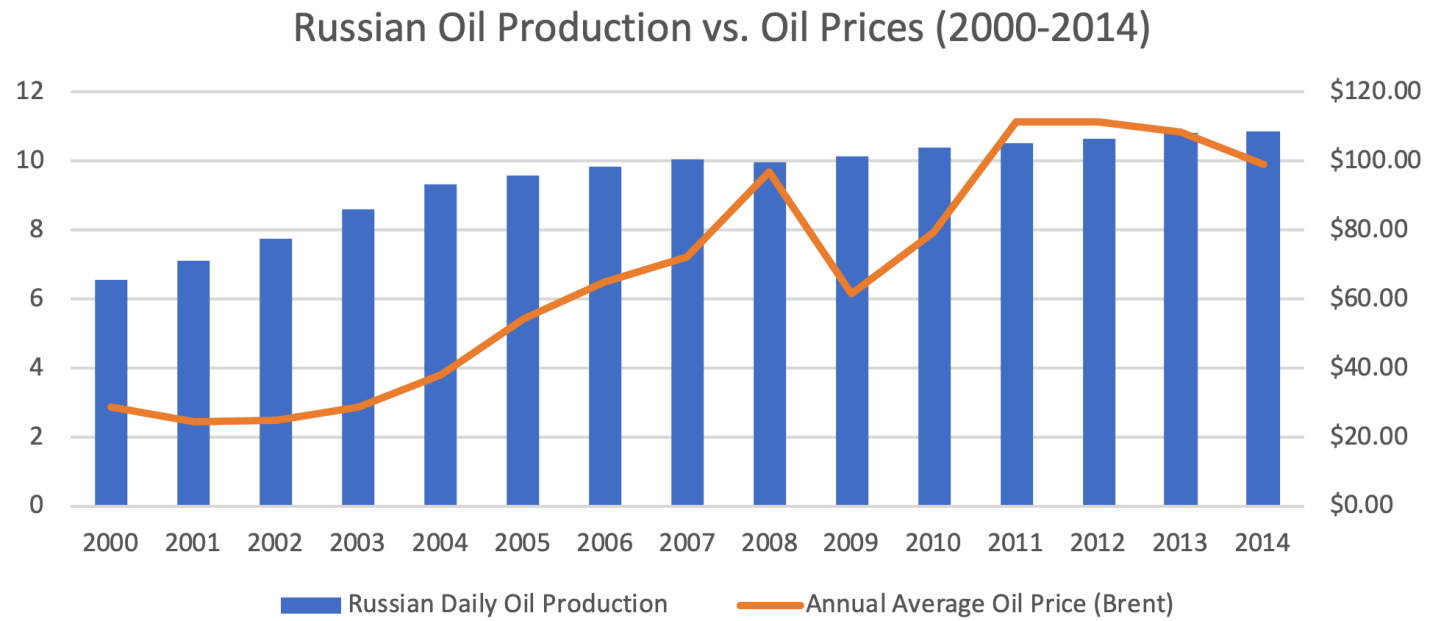
24 Goldsworthy, Brenton, and Daria Zakharova. "Evaluation of the Oil Fiscal Regime in Russia and Proposals for Reform." *IMF Working Papers*10, no. 33 (2010), https://doi.org/10.5089/9781451962703.001.

25 Kebede, Rebekah. "Oil Hits Record above $147." *Reuters*, July 11, 2008, https://www.reuters.com/article/us-markets-oil/oil-hits-record-above-147-idUST14048520080711; and Hamilton, James D. "Causes and Consequences of the Oil Shock of 2007–08." *Brookings Papers on Economic Activity*, 2009, pp. 215–61, https://doi.org/10.1353/eca.0.0047.

26 Goldsworthy and Zakharova, 2010

27 "IEA World Energy Outlook - 2006," n.d., https://webstore.iea.org/world-energy-outlook-2006.

28 Gustafson, Thane. *Wheel of Fortune: The Battle for Oil and Power in Russia*. Cambridge, MA: The Belknap Press of Harvard University Press, 2017.




the dire picture, the Kremlin adopted limited changes.

The state extended tax holidays for oil production in the Black Sea, the Sea of Okhotsk, and in northern oil territories on or near the Yamal peninsula and in the Timan-Pechora basin.[29] The floor for untaxed production costs was raised from $9 per barrel to $15 per barrel, making a broader range of more expensive projects more attractive on a tax basis.[30] Companies could write off more development and operational costs at existing fields in decline or newer ones, while the state maintained its revenues since oil prices remained higher on average than when the tax code initially was adopted.

The move helped return production levels to growth, though rates never matched those achieved from 2000-2005 as the "low hanging fruit" of efficiency gains at core oil fields were already picked. The lack of systemic reform created new pressures to draw in foreign partners and investment to develop Arctic reserves, without which production was expected to decline slowly.

29 "Oil fields in the Black Sea and Sea of Okhotsk to receive tax holidays." Lenta, January 18, 2013, https://lenta.ru/news/2009/04/13/tax/.

30 "Basic Directions of the Tax Policy of the Russian Federation for the Year 2010 and the Planning Period 2011 and 2012." MinFin, May 25, 2009.

Arctic offshore reserves were identified as a vital resource to sustain production levels and ensure Russia's exports in the Energy Strategy of Russia to 2030 in parallel with the Ministry of Finance's concerns about sustaining production levels.

(Adobe Stock)

# Russia's Oil Sector Looks East and West

Lacking the domestic technology and experience to develop offshore Arctic reserves or tight oil projects effectively, Russia needed to develop core reserves to boost production. Partnerships with foreign firms were necessary. Unfortunately, it had undermined its reputation abroad significantly. Gazprom's seizure of controlling stakes of the Sakhalin-1 project from its consortium using a mix of political and coordinated judicial pressure in 2006 signaled that any major investment needed full protection from the Kremlin, lest it be raided.[31] Fights between foreign and Russian owners over TNK-BP and similar business conflicts commonplace in Russia undermined confidence in long-term investments, such as those on the Arctic shelf just as shifts in consumer power were reaching an inflection point on oil markets.[32] Western help was needed to meet Eastern demand.

Organisation for Economic Co-operation and Development (OECD) oil demand—led by the United States and the European Union—peaked in 2005 at the beginning of strongest part of the bull market from 2005-2008. Between 2005 and 2018, OECD oil demand declined by almost 5.2%. Over that same time, non-OECD demand grew almost 51.7%, overtaking the OECD for a leading share of global consumption in 2013. China, India, and developing Asia-Pacific economies provided a large majority of global consumption growth after 2008, while European demand declined and U.S. demand first stagnated and then rose incrementally. Russian exports had to follow the money.

After the crisis, prices recovered towards $100 per barrel thanks to resumed demand growth and the interruption in oil investments created by the GFC in 2008-2009. This, in turn, sustained interest in more expensive projects. For Russia, this meant the Arctic shelf and tight oil.

Arctic offshore reserves were identified as a vital resource to sustain production levels and ensure Russia's exports in the Energy Strategy of Russia to 2030 in parallel with the Ministry of Finance's concerns about sustaining production levels.[33] Though the state talked up its abilities, a lack of sector experience and a domestic technological base for offshore projects and newer tight oil drilling techniques pioneered in the United States meant widescale development depended on foreign firms. As late as 2014, Russian firms were importing half of the equipment needed to develop hard-to-reach reserves including tight oil and over 80% of the equipment used for offshore projects.[34] The Kremlin also still needed to ensure the major oil reserves in development to serve the Chinese market were controlled by the state for political ends. Both policy imperatives fell to Rosneft—Russia's state-owned oil champion built via the nationalization of Yukos' assets.

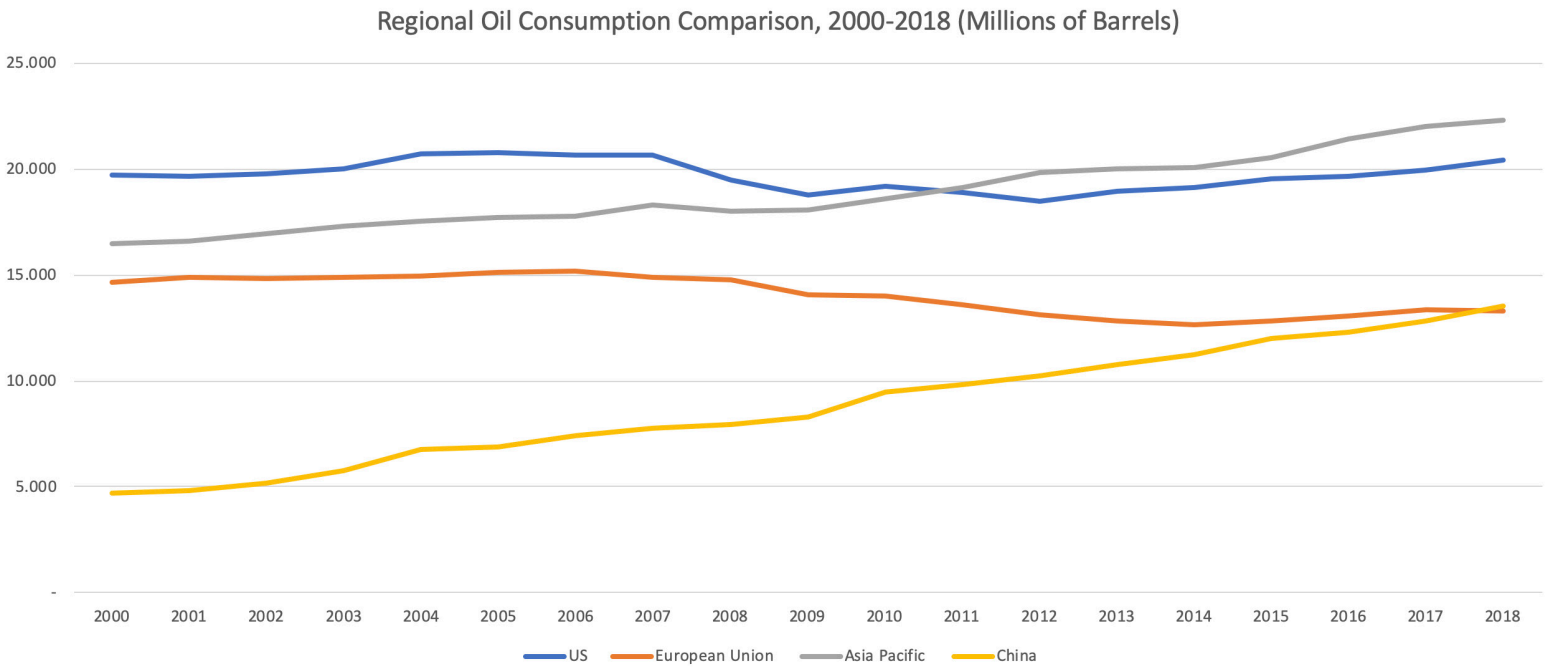
Rosneft long had eyed the assets of TNK-BP, a joint venture controlling oil fields in Eastern Siberia situated to serve China. The issue was financing. Aiming to become the primary intermediary for oil deals with Beijing, Rosneft was able to negotiate a $55 billion acquisition of TNK-BP using a series

31 Kramer, Andrew. "Shell Cedes Control of Sakhalin-2 to Gazprom - Business - International Herald Tribune." *New York Times*, December 21, 2006, https://www.nytimes.com/2006/12/21/business/worldbusiness/21iht-shell.3981718.html.

32 Sweeney, Conor. "Russia Partners Say BP Legal Suit 'Bullying.'" *Reuters*, July 6, 2008, https://uk.reuters.com/article/uk-bp-tnk-lawsuit/russia-partners-say-bp-legal-suit-bullying-idUKL0659133720080706.

33 Energy Strategy of Russian For The Period Up To 2030 (2010), http://www.energystrategy.ru/projects/docs/ES-2030_(Eng).pdf.

34 Shagina, Maria. "Russia's Energy Sector: Evaluating Progress on Import Substitution and Technological Sovereignty." *Global Risk Insights*, April 2018, https://44s2n02i19u61od84f3rzjqx-wpengine.netdna-ssl.com/wp-content/uploads/2018/04/GRI-Russian-Energy-Sector-Import-Substitution.pdf.




of prepayments from Chinese counterparts worth $60-70 billion linked to a massive supply deal in 2013 laying the foundation for today's export volumes.[35]

Rosneft was building off of Yukos' legacy. Russian oil exports to China reached 600,000 bpd by 2013, roughly matching the volumes Yukos had proposed would be reached by 2010 in its 2003 deal. Though this may be considered "success," all the core assets supplying China had been developed prior to the nationalization. Further, Western Siberian fields provided as much as one-fifth of these supplies, a side effect of the underdevelopment of Eastern Siberian reserves.[36] Newer reserves were a prerequisite to expand supplies for China's market without risking export levels to Europe.

Rosneft sought Western partners to develop new oil fields in the Arctic even as Rosneft became China's primary partner in Russia. ExxonMobil specifically was approached in 2011-2012 to establish a strategic agreement that would open U.S. oil and gas fields to Russian investment—crucial to acquire experience and know-how—while granting Exxon access to Russia's Arctic fields, which couldn't be developed without its technical capabilities.[37] The U.S. Energy Information Administration (EIA) estimated that Russia held the world's largest recoverable reserves for tight oil production in 2013, piquing Rosneft's interest.[38] The two companies signed joint venture frameworks for development deals at offshore projects estimated to be worth tens of billions in investments over their life cycle as their interests aligned.[39]

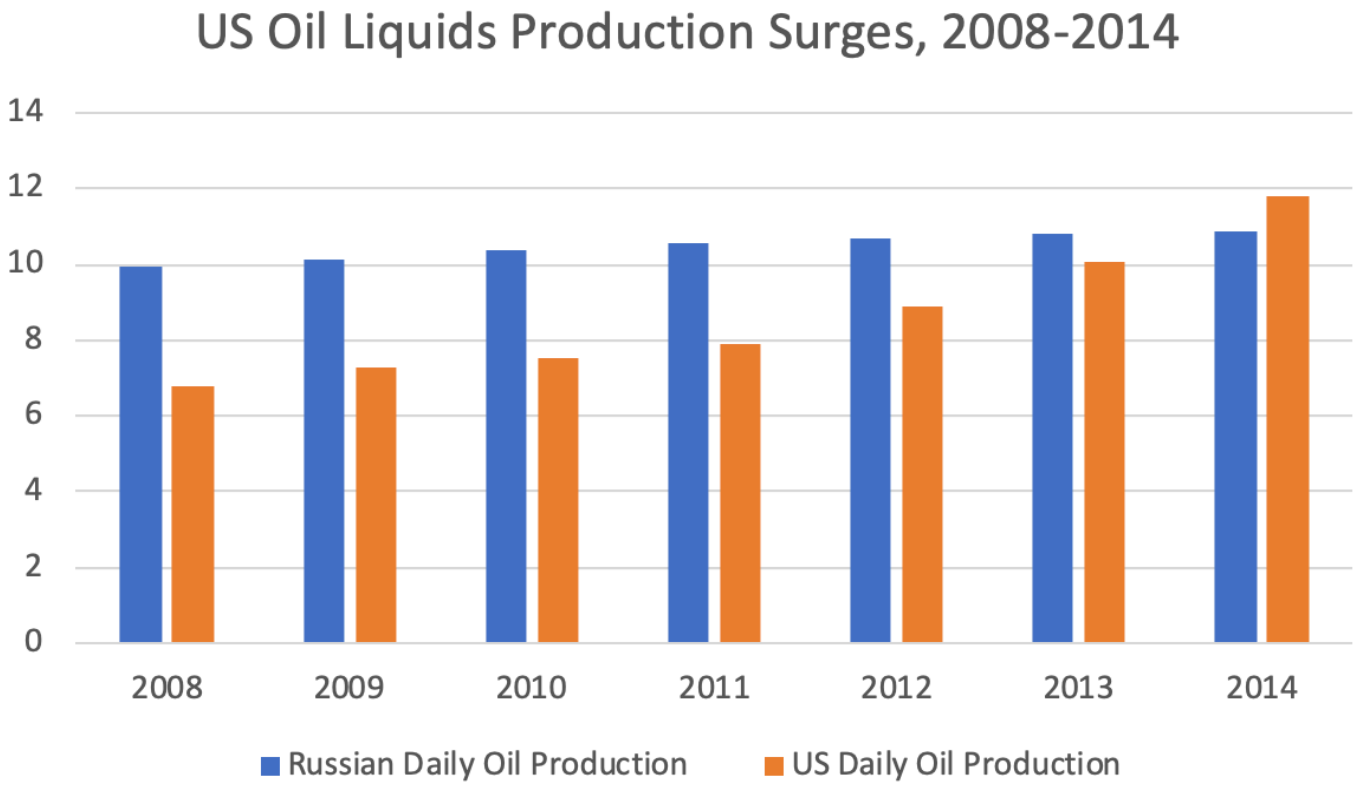
35 Pinchuk, Denis. "Rosneft to Double Oil Flows to China in $270 Billion Deal." *Reuters*. June 21, 2013, https://www.reuters.com/article/us-rosneft-china-idUSBRE95K08820130621.

36 Weaver, Courtney, and Neil Buckley. "Russia and China Agree $270bn Oil Deal." *Financial Times*. June 21, 2013, https://www.ft.com/content/ebc10e76-da55-11e2-a237-00144feab7de.

37 Kramer, Andrew E. "Exxon Reaches Arctic Oil Deal With Russians." *New York Times*. August 30, 2011, https://www.nytimes.com/2011/08/31/business/global/exxon-and-rosneft-partner-in-russian-oil-deal.html.

38 "Technically Recoverable Shale Oil and Shale Gas Resources," U.S. Energy Information Administration, June 2013, https://www.eia.gov/analysis/studies/worldshalegas/pdf/overview.pdf.

39 Busvine, Douglas. "Exxon, Rosneft Unveil $500 Billion Offshore Venture." *Reuters*. April 18, 2012, https://www.reuters.com/article/us-exxon-rosneft-idUSBRE83H0UE20120418.




Gazprom Neft—formerly Sibneft—pursued a similar parallel deal regarding tight oil and Arctic development with Shell in 2012-2013, but regulatory mishaps in the United States delayed agreements.[40] The company launched Arctic offshore production at the Prirazlomnoye field. However, this did not lead to wider development. Prirazlomnoye only entered production with an effective tax rate reduction from 92% to 53% of all cash flow—similar schemes were considered for other projects. [41] However, investment did not materialize.

Project-specific tax exemptions were offered to spur investment into the Arctic shelf and tight oil production, but systemic changes were avoided by the Kremlin. Policymakers failed to change the fundamental challenge facing the sector: increasing output growth to maintain European market share and reacting to the shifting regional balance of oil demand.

Over this period of sustained higher prices, a revolution took place in the United States. Tight oil production took off, aided by cheap credit. U.S. production increases significantly outpaced those in Russia between 2009 and 2014 because Russia's oil sector struggled to maximize the production potential of Russia's reserves. The post-crisis pivot to meet Chinese and Asia-Pacific oil demand faced the structural reality that U.S. production was growing to meet rising global demand before 2014. And then it smashed straight into demand and geopolitical headwinds that compounded the oil sector's problems.

40 Gosden, Emily. "Shell to Sign Russian Arctic Deal with Gazprom Neft, Kremlin Reveals." *The Telegraph*. April 4, 2013, https://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/9972768/Shell-to-sign-Russian-Arctic-deal-with-Gazprom-Neft-Kremlin-reveals.html.

41 Lundgren, Lars Petter, and Daniel Fjaertoft. "Government Support to Upstream Oil & Gas in Russia," International Institute for Sustainable Development/WWF, July 2014, https://iisd.org/gsi/sites/default/files/ffs_awc_russia_yamalprirazlomnoe_en.pdf.

# The Turn East Hits New Snags

The failure to effect systemic change to promote investment into production posed little threat to the budget so long as prices remained high. But what would happen if prices crashed again? Between 2010 and 2013, Brent crude regularly traded above $100 per barrel. However, economic growth slowed as high oil prices were no longer sufficient to drive up consumption. The model of economic growth used in the 2000s had exhausted itself. Oil revenues would be disproportionately important for macroeconomic stability without growing sources of non-oil and gas revenues.

Twin shocks in 2014 exposed this problem: a huge dive in oil prices and the West's decision to impose sanctions on Russia in response to the annexation of Crimea. Russian policy responses have since repeated the tradition of incomplete measures with political aims undermining needed overhauls that would maximize the oil sector's ability to increase exports and meet rising demand.

The collapse in market prices in the first half of 2014 changed the landscape for investments. The cost intensive nature of Arctic offshore projects—general project costs can run 2-3 times higher than normal due to the climate—meant that prices close to $100 per barrel were necessary for investment commitments.[42] Policymakers knew that high taxes discouraged production, but growing uncertainty over prices and global supply and demand created a problem: the budget's dependence on oil and gas revenues made tax breaks unattractive if prices declined. This dynamic worsened policy uncertainty given numerous ad-hoc tax exemptions for Russian projects.

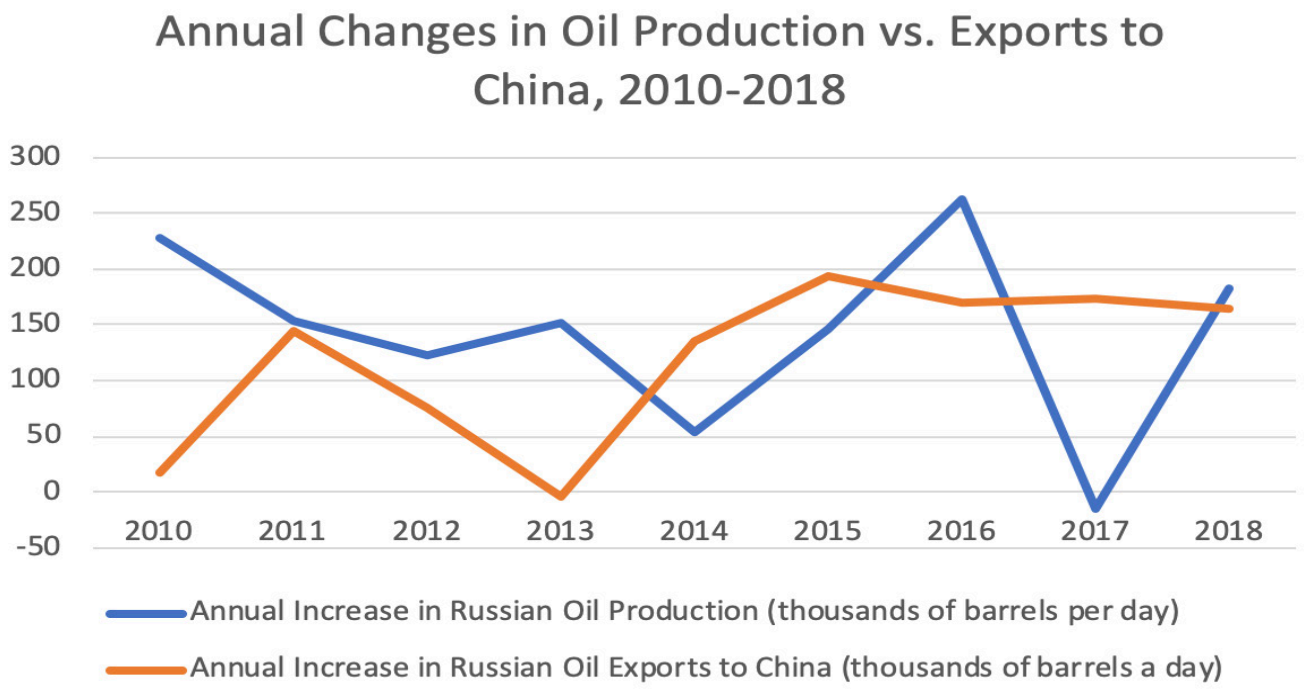
Rising U.S. oil production met weakening demand growth. Prices tumbled from over $110 per barrel in July to under $47 per barrel by January 2015. Private firms' interest in Arctic offshore production as well as the state's ability to absorb significant revenue losses and functional subsidies for production waned. The West sanctioned Russia's oil sector. This action denied it access to financing and vital imported equipment and technology and scared off firms from sticking around for a price recovery. The combination of the two in 2014-2015 ended talk about developing the Arctic shelf while the Russian oil sector scrambled to adjust to an oil glut.

During 2015, the Kingdom of Saudi Arabia and the Organization of the Petroleum Exporting Countries (OPEC) opted to let the market sort out imbalances, worsening the glut and pushing Russia into a corner. Cutting production was not an option unless Saudi Arabia moved to coordinate output levels, and traditional exporters bet that lower prices would drive out U.S. producers with higher production costs and shorter investment cycles.[43] Prices settled above $61 per barrel in June, but continued to slide as the market glut worsened. They slumped under $28 per barrel in late January 2016.

To defend its market share and meet contractual obligations from Rosneft's 2013 China deals, production levels had to rise. Production climbed 147,000 bpd between 2014 and 2015 in parallel with a 193,000 bpd increase in exports to China. The initial rise came from improvements using

42 Razintseva, Anna "Is it worth it to Russia to hurry up developing the Arctic shelf?" *Vedomosti*, March 3, 2013, https://www.vedomosti.ru/library/articles/2013/03/04/ostorozhno_arktika.

43 Yergin, Daniel. "Who Will Rule the Oil Market?" *New York Times*. January 24, 2015, https://www.nytimes.com/2015/01/25/opinion/sunday/what-happened-to-the-price-of-oil.html; Agnihotri, Gaurav. "The Saudi Oil Price War Is Backfiring." OilPrice, August 6, 2015, https://oilprice.com/Energy/Crude-Oil/The-Saudi-Oil-Price-War-Is-Backfiring.html; and Federal Reserve Bank of St. Louis. "The Rise of Shale Oil." May 15, 2018, https://www.stlouisfed.org/on-the-economy/2018/may/rise-shale-oil.




horizontal drilling and improved profitability baked in by the devaluation of the ruble at the end of 2014.[44] The industry couldn't rely on efficiency improvements in Western Siberia and other legacy oil fields alone. It needed newer output to sustain production levels.

The balancing act got more difficult when prices crashed further at the beginning of 2016. Russian firms seeking to maximize production benefited from past tax changes. The high marginal tax rate on above $25 per barrel meant that companies had little incentive to cut production in order to lift prices since most of the revenue gains from higher prices would accrue to the state.[45] In fact, they were pushing to invest more. But to firms' chagrin, the budget—and geopolitics—came first.

Moscow initially agreed to freeze oil production in concert with Saudi Arabia in February 2016, conditionally tied to agreements by other leading producers.[46] Oil prices were buoyed by expectations of cuts, trending towards $44-48 per barrel over the summer. By winter, a production cut deal came together as Putin personally interceded in hopes of raising prices and increasing Russia's political clout in the Middle East.[47]

Exports to China rose another 170,000 bpd over the course of 2015-2016, accounting for 65% of the oil sector's total output increase of 262,000 bpd over the same period. Russia's adherence to the so-called OPEC+ deal did not stop this structural growth. Exports to China rose a further 173,000 bpd in 2016-2017, while production declined slightly. Export totals rose a further 165,000 bpd for 2017-2018 against an increase of 169,000 bpd of output compared to 2016-2017. Between 2014 and 2018, exports nearly doubled—an increase of about 700,000 bpd—which roughly matched

44 Henderson, James, and Ekaterina Grushevenko. "Russian Oil Production Outlook to 2020." Oxford Institute for Energy Studies, February 2017, https://www.oxfordenergy.org/publications/russian-oil-production-outlook-to-2020/.

45 Henderson, James, and Bassam Fattouh. "Russia and OPEC - Oxford Institute for Energy Studies." Oxford Institute for Energy Studies, February 2016, https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/02/Russia-and-OPEC-Uneasy-Partners.pdf.

46 Sheppard, David. "Saudi Arabia and Russia Ministers Agree Oil Production Freeze." *Financial Times*. February 16, 2016, https://www.ft.com/content/da44fb1c-d485-11e5-8887-98e7feb46f27.

47 Gamal, Rania El, Parisa Hafezi, and Dmitry Zhdannikov. "Exclusive: How Putin, Khamenei and Saudi Prince Got OPEC Deal Done." *Reuters*. December 1, 2016, https://www.reuters.com/article/us-opec-meeting-idUSKBN13Q4WG.

(Rosneft)

output growth over the period. These increases largely came from onshore oil fields in the Arctic entering production just after the 2014-2015 downturn.[48]

Since 2013, most new Russian oil production has matched the growth of exports to China's market. Rosneft has accounted for virtually all of the export growth, closing deals with CEFC China Energy to supply an additional 238,000 bpd starting in 2018 via existing infrastructure in the Far East and via Kazakhstan.[49] While flows to China rose—they hit 1.43 million bpd for 2018—domestic policy processes and failures undermined Russia's shift towards China and Asia-Pacific markets. The turn East yielded results, but did not match Russia's export capabilities as the price crash hurt Russia's budget and forced the Kremlin to coordinate production cuts.

48 Lee, Julian. "The Arctic Threat to the Price of Oil." *Bloomberg*, December 10, 2017, https://www.bloomberg.com/opinion/articles/2017-12-10/the-arctic-threat-to-oil-s-grand-bargain.

49 Petlevoy, Vitaliy, and Artur Toporkov. "Rosneft continues to battle for China." *Vedomosti*, October 19, 2017, https://www.vedomosti.ru/business/articles/2017/10/20/738678-rosneft-kitai; and "Russia supplying China's CEFC 60.8 million tons of oil through 2023." TACC, November 20, 2017, https://tass.ru/ekonomika/4742382.

# Tax Reform by Attrition

External economic shocks offer domestic lobbies a window of time to push for favorable policies as a crisis measure. How did the Russian oil sector make use of the 2014-2015 price crash? Development plans and tax incentives had to change in order to sustain and expand production levels. Without them, the problems identified by the Ministry of Finance and the Ministry of Energy would go unresolved, threatening Russia's long-term export position.[50] Instead of structural adjustment, the Kremlin prioritized the budget.

The Ministry of Finance and oil sector lobbied to phase out export duties in order to reduce domestic price distortions for fuel, increase firms' domestic earnings, and reduce the budget's exposure to fluctuations in oil prices. Revenues were saved, but investment into new production isn't growing significantly. Moscow has adopted limited reform, and the sector continues to face long-term constraints on its ability to increase investment levels.

Lower prices incentivized companies to pump as much as possible because of the existing tax regime, but high effective tax rates still dogged investments and investor certainty. Even if firms had access to Western technology, the tax code pushed firms to focus on maximizing production at older fields—similar to Russia's initial period of production expansion in the 2000s—and developing onshore reserves that incur smaller initial sunk costs. [51] With a weak global market in 2014, companies and the Ministry of Finance sought to improve profitability at home.

Domestic fuel price controls and the use of export duties to capture revenues from higher prices denied firms billions of dollars on the domestic market. Worse still, tax incentives adopted before 2010 that encourage the export of refined oil products also cost firms. These incentives destroyed billions of dollars of higher earnings that would have been realized by the export of crude oil instead.[52] Tax reforms that came to be known as the "oil tax maneuver" were tentatively agreed to in 2014 as prices nosedived and confusion reigned on the market.

During this time, Russia was in the process of launching the Eurasian Economic Union (EAEU). The EAEU was intended to offer an economic counterweight to the European Union and help establish a common market and regulatory space in Russia and key neighboring states, such as Kazakhstan, Ukraine, and Belarus. The Ministry of Finance argued that lifting export duties was necessary to create a common energy market within the EAEU and to limit price distortions between domestic and foreign fuel prices. Domestic consumers were subsidized heavily, which cost firms and the budget billions of dollars of revenues annually.[53] The loss of export duty revenues had to be offset elsewhere, namely by raising Mineral Extraction Taxes. Straining under low prices and calculating the impacts of sanctions, the oil sector didn't fight hard against the proposed policy changes in 2014.[54] But leaving the effective project costs for extraction

50 Podobedova, Liudmila. "Putin is told about the threat that oil production decline 30%." РБК, September 2, 2015, https://www.rbc.ru/business/03/09/2015/55e71b079a794701285a0c19.

51 Henderson, James, and Ekaterina Grushevenko. "The Future of Russian Oil Production in the Short, Medium, and Long Term." Oxford Institute for Energy Studies, September 2019.

52 Yermakov, Vitaliy, James Henderson, and Bassam Fattouh. "Russia's Heavy Fuel Oil Exports: Challenges and Changing." Oxford Institute for Energy Studies, April 2019, https://www.oxfordenergy.org/wpcms/wp-content/uploads/2019/04/Russia's-heavy-fuel-oil-exports-challenges-and-changing-rules-at-home-and-abroad-WPM-80.pdf.

53 Vygon, Grigoriy. "The Big Tax Manevuer: Who Won, and Who Lost?" РБК, April 13, 2015, https://www.rbc.ru/opinions/economics/13/04/2015/552684f49a7947ebcaf39243.

54 Panchenkova, Margarita, and Maksim Tovkailo. "Rosneft won't fight the tax maneuver in the sector." *Vedomosti*, August 4, 2014, https://www.vedomosti.ru/finance/articles/2014/08/04/putin-ugovoril-sechina.


(Adobe Stock)

unchanged by swapping taxes to bring in revenues wouldn't improve the sector's ability to sustain and increase investments into production—the central challenge facing the sector that the Ministry of Finance identified in 2009-2010.

This watered-down tax reform agenda has caused a proliferation of project-specific exemptions requested by leading oil firms—especially Rosneft—to sustain output at Russia's oldest oil fields.[55] Budget revenues are stable or set to rise, yet the extensive tax exemptions needed to maintain output at core oil fields will forego billions of dollars in coming years. Without them, it becomes that much more difficult to maintain Russian exports to European consumers while claiming a larger market share in China and beyond.

To make matters worse, Russia's lone mega-project for new oil production—centered on the Paiyahki field in the Arctic, which it is hoped will peak at over 500,000 bpd by 2030—requires extensive state support.[56] Rosneft CEO Igor Sechin has requested over $40.6 billion, mostly in the form of tax exemptions, to encourage development.[57] The Ministry of Finance continues to oppose extending such exemptions without any systemic resolution.[58] If the field ever comes online, then it is unlikely to provide the same revenues that others do. Otherwise, it will be very expensive because the budget has lost billions due to exemptions at projects like the Priobsky field operated by Rosneft, the firm awarded all major export contracts to China since 2013.[59]

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55 Podobedova, Liudmila, and Alina Fadeeva. "Rosneft won 350 billion rubles' of tax breaks for Samotlor." РБК, October 6, 2017, https://www.rbc.ru/business/06/10/2017/59d7b0889a7947de154ad136.

56 Trunina,Anna. "Sechin announced 100 million tons of Arctic production by 2030 to Putin." РБК, April 1, 2019, https://www.rbc.ru/economics/01/04/2019/5ca213ba9a79477c1142f58b.

57 Bogdanov, Pavel. "Unfrozen tax breaks." Novaya Gazeta - Novayagazeta.ru, July 28, 2019, https://www.novayagazeta.ru/articles/2019/07/28/81405-otmorozhennye-lgoty.

58 Kozlov, Dmitry. "Tax breaks on tax breaks aren't coming." Gazeta Kommersant No. 168 (6648), September 16, 2019, p. 1, https://www.kommersant.ru/doc/4095058.

59 Petlevoy, Vitaliy. "Compensation too the budget for tax breaks for Priobskiy field discussed around the president." *Vedomosti*, September 5, 2019, https://www.vedomosti.ru/business/articles/2019/09/06/810602-kompensatsii-za-lgoti-po-priobskomu-mestorozhdeniyu.

# Russia Between a Rock and a Hard Place

Russia's shift towards Chinese and Asian oil markets has been a slow, steady process over the last 19 years, not primarily a reaction to geopolitical circumstance. Cooperation between Moscow and Beijing in the oil sphere accelerated in 2013 when Rosneft signed its initial mega-supply deal with CNPC, but Russia generally has been playing catch-up as an exporter. Domestic taxation, fights over assets, and cost overruns have limited Russia's ability to increase its production in response to rising demand on oil markets. The government continues to prioritize tax revenue above all else.

The Kremlin has added another impediment by agreeing to coordinate production with OPEC+. OPEC now must follow deals between Moscow and Riyadh. However, constraints on Russian output limits firms' investments into the newer production needed to sustain and increase production and exports. The longer Russian firms are restrained in their ability to pursue greater output, the more ground they will lose to non-OPEC production elsewhere.

Russia has been fortunate that demand for its crude in Europe has dipped in recent years due to weaker growth and the rise of newer sources of oil imports, namely the United States.[60] That has given it leeway to redirect some of its crude production towards China and the Asia-Pacific. But declining European demand offers limited relief. The large-scale redirection of crude flows Eastward strains infrastructure designed for oil blends dependent on output in Western Siberia. Further, Europe's production from the North Sea is likely to continue declining.[61] European import dependence is likely to continue to rise despite weaker overall demand, which will pressure Russia's market share.

While oil demand looks weaker in Europe, China and India will drive oil demand growth in the coming years.[62] The International Energy Agency (IEA) expects global demand growth of roughly 7.1 million bpd by 2025. Russia is likely to lose relative market share in that time because the structural challenge facing Russia's oil sector—how to increase output with an aging supply base and heavy tax burden—hasn't been resolved.

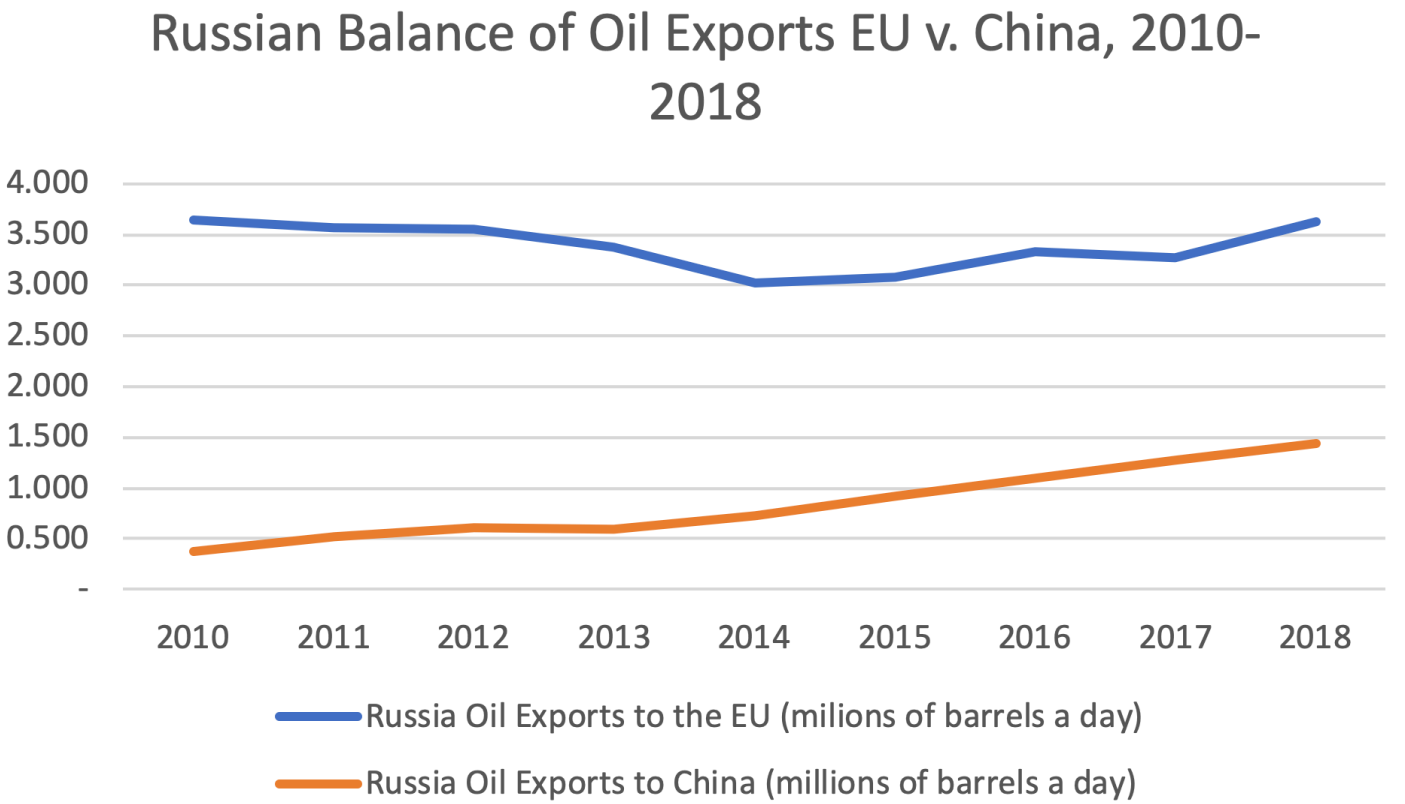
As long as oil prices remain low, whether from the supply of U.S. tight oil or weaker demand, the incentive to coordinate production with Saudi Arabia is strong. This forces Moscow to constrain the oil sector's ability to invest into newer production in order to influence prices for the budget, its long-standing policy priority.

Since Putin took power, Russia's oil sector has been "pivoting to Asia." The process has been drawn out by burdensome taxation, investment uncertainty, and external shocks that have undermined the realization of Russia's oil export potential. Moscow has seized the mantle as China's leading oil supplier—a boon for its geopolitical agenda—but risks losing ground in the coming decade if it continues to prioritize budget revenues over market share.
Russia's shift to China's oil market has been successful based on political announcements and

60 "Record High Seaborne US Crude Oil Exports in June 2019." *Hellenic Shipping News Worldwide*, August 28, 2019, https://www.hellenicshippingnews.com/record-high-seaborne-us-crude-oil-exports-in-june-2019/; and Starinskaya, Galina. "Demand for Russian Oil is Falling in Europe." *Vedomosti*, February 27, 2018, https://www.vedomosti.ru/business/articles/2018/02/27/752171-v-evrope-rossiiskuyu-neft.

61 "Why more Russian oil is leaving Europe for China." Noovosti Rossii - RuAN, May 4, 2018, http://xn----ctbsbazhbctieai.ru-an.info/новости/почему-русская-нефть-всё-больше-уходит-из-европы-в-китай/; and Paraskova, Tsvetana. "Faltering North Sea Oil Production Set To Tighten Global Markets." OilPrice May 20, 2019, https://oilprice.com/Latest-Energy-News/World-News/Faltering-North-Sea-Oil-Production-Set-To-Tighten-Global-Markets.html.

62 Oil Outlook 2019: Analysis and Forecast to 2024, Oli Outlook 2019: Analysis and Forecast to 2024 § (2019).




Rosneft's export contracts. But rather than a story of great success, competing policies, needs, and shocks consistently have undermined Russia's ability to exploit openings on the market, or else threaten the longer-term sustainability of the inroads made in China and Asia-Pacific markets more generally. Russia will remain one of China's leading oil suppliers for years to come. But it will do so from an increasingly precarious position in which it struggle to increase investments into newer production, which will threaten its ability to maintain its historic role in the European oil market.

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