



President Vladimir Putin addresses the opening of the INNOPROM-2017 industrial trade fair in Ekaterinburg, Russia. (Source: [en.kremlin.ru](https://en.kremlin.ru) / Attribution: CC BY 4.0)

# How the Urals Might Answer Russia's 21st-Century Economic Crisis: A Pivot to the East?

By Michael J. Corsi

In the early history of Russia, the Ural Mountains were the New World of the empire. At about the same time Columbus “discovered” the North American continent, Russian explorers stumbled upon this magnificent mountain range. In the 18th century, Vasily Tatishchev, on-and-off head of the Urals mining industry, declared the region a continental boundary, a place where one could stand with one foot in Europe and the other in Asia. Almost 300 years later, Tatishchev’s observation continues to ring true. The Russian Federation is poised to embark on a great economic reorientation. The Urals, timeless as ever, lie right in the middle of this shift.

Russia’s geopolitical position in the West has become increasingly precarious over the past 30 years. The

breakdown of relations between Russia and former Soviet republics, such as Ukraine, as well as increasing contention between Russia and NATO over the future of states like Belarus—mainly the result of Russian military mobilization there and Putin’s attempts to exploit Lukashenko’s political vulnerability in lieu of fraudulent election results—has limited the country’s western trading partners.

Furthermore, in response to continued Russian cyberattacks and international aggression, the United States is committed to pursuing punitive sanctions against Russian exports to Europe, while simultaneously hindering the construction of new transport infrastructure.<sup>1</sup> The U.S. has already

undertaken efforts to prevent the completion of the Nord Stream II natural-gas pipeline, which would run from Ust-Luga in the Leningrad oblast' through the Baltic Sea into Pomerania.<sup>2</sup> Nord Stream II, if finished, would provide Russia with a direct route to Germany, one of the largest importers of Russian natural gas.<sup>3</sup> The U.S. has also taken action to reduce Moscow's control over the movement of energy supplies through Ukraine. For example, President Obama, in response to Russia's annexation of Crimea in 2014, issued an executive order that limited foreign direct financing to Russia's largest energy companies and forbade the provision of technological support to deep-water exploration and offshore oil projects in the Black Sea region.<sup>4</sup> The Biden administration is looking to take a much more hard-line position vis-à-vis Russian trade with the West. President Biden passed an executive order in April, giving the secretary of the Treasury power to block the transfer of property and goods into the U.S. that originate from anyone involved with the defense, technology, or material sectors of the Russian economy.<sup>5</sup>

Executive decisions of this kind have caused quite the conundrum for the teetering Russian economy, which relies almost exclusively on energy exports to remain relevant at the global level. In 2017, Russia produced an average of 11.2 million barrels of crude oil, petroleum liquids, and biofuels per day, making it the third-largest supplier, behind Saudi Arabia and the U.S.<sup>6</sup> Coal reserves make up a similarly large proportion of Russian exports. In 2019, Russian coalfields contained over 162 billion metric tons of coal, putting the country just behind the U.S., the world's largest producer.<sup>7</sup>

The formation of a strong trading bloc with China, which Putin has been considering since at least

2005, is as much a security as an economic measure. And a measure, no less, that is supported by a strong historical precedent of national industrialization and development.

In the past, Urals industry has held strong and saved Russia in the face of some of its most pressing crises. This was true, for instance, during the 17th century conflict between the Polish szlachta, Cossacks, and Russian imperial army. It was true during the Donbass pogroms and strikes in the late 19th century. It was true during the invasions of Eastern Europe in the First and Second World Wars. Today, Urals industry will play a pivotal role in saving Russia yet again, this time not from Polish swords or German tanks, but American sanctions.

How well a Sino-Russian economic partnership will play out depends on whether the Russian Federation can produce the infrastructure necessary to refocus its nexus of trade. It is here where a deeper understanding of the Urals region, as well as the territories that fall under the region's jurisdiction, help clarify the feasibility of such a switch. If Putin wants to shift Russia's trade markets to the east, perhaps even reconstitute its Soviet-era "first among equals" role in the greater Eurasian region, his administration will need to focus on furthering Urals development. In this, he does not lack precedent. The Urals have been undergoing significant economic and industrial growth for the past 150 years; the challenges Putin must contend with today bear a resemblance to the evolution of the region. Understanding the historical contributions of the Urals to Russian industrial development and resource management can shed light on the options available to the Putin regime in response to current economic and geopolitical pressures.

## Becoming Russia's Crucible

It took some time for Russia's policymakers to recognize the full potential of the Urals resources. During the second half of the 19th and first decades of the 20th centuries, Russian, British, French, and German scientists surveyed these mountains and compiled reports of the metal-ore deposits located there. One of these surveyors, Dmitrii Mendeleev, father of the periodic table, made a trip to the Urals in 1899 and highlighted the importance of railroads for the development of the region. Geologists and other earth scientists were aware of the abundant deposits of iron ore, copper, platinum, silver, and coal in the mountains. But they found it difficult to convince statesmen back in Petersburg and Moscow to prioritize railway development there instead of closer to the Russian west.<sup>8</sup> Sergei Witte, finance minister of Russia from 1892–1903 and chief proponent of railway construction throughout the empire, chose to direct most foreign investment and domestic resources to the Donbass-Dnepr region of Ukraine. Russia encouraged English industrialists to invest in the iron ore industry of Krivoi Rog, while funding from the French Mining Company in the coal of the Donets Basin established southern cities like Ekaterinoslav as crucial to the domestic economy.<sup>9</sup> It would not be until much later that the Urals began to replace Ukraine as the main regional center for the extraction and refining of coal and metal ores.

Though underutilized in comparison with their west-Russian counterparts, the metals and energy resources of the Ural Mountains continued to occupy the interest of tsarist ministers and industrialists up to the 1917 Revolution. Armament

factories in Perm, for example, made use of local ore deposits to satisfy not only treasury requests for the production of factory machinery, boilers, refined iron, and instrumental steel, but also to furnish artillery pieces, bombshells, bullets, and rifles for the Imperial Russian Army.<sup>10</sup> Many of the guns used in the Crimean War and Russo-Japanese War originated from factories in the Urals. But in the 19th and early 20th centuries, Russian industry was still in its infancy (indeed, during the Crimean conflict, British steam-powered galleons unleashed cannon fire on Russian *sailboats* in the Black Sea), and the modest contributions of the Urals production was not enough to overcome the enormous industrial shift taking place in Western Europe.

It was only by the end of the First World War that the Bolsheviks catapulted the Urals to the forefront of the Soviet regime's industrial vision. Russia lost substantial territory and mineral resources in Eastern Europe as a result of the Brest-Litovsk treaty, including 89 percent of its coal deposits and 73 percent of its iron and steel production, while suffering massive destruction to its industrial infrastructure.<sup>11</sup> Already by 1918, Lenin had ordered the establishment of new metallurgical factories and industrial combines, as well as the fortification of existing ones, throughout the Urals. For example, in April he formed a plan for the construction of the Ural-Kuznetsk Combine, which was completed in the 1930s and served as a critical nexus between the rich coalfields of Western Siberia and the metallurgical industries of the Ural Mountains.<sup>12</sup> The Soviets would come to regard the metals and fossil fuels of the Urals as some of their most reliable. And, most importantly, they began to realize how valuable the Urals could be in moments of extreme crisis.

## The Development of the Urals in the Soviet Era

We might think of the early contribution of the Urals to the Soviet Union as providing a response to a “soft” crisis. Stalin and his ministers recognized the technological backwardness of Russia in comparison with Western Europe and North America, a position that made it impossible for the Soviet Union to maintain a world power status. This was unacceptable, given the empire’s leadership of the emerging socialist bloc (proletarians are essentially urban, industrial creatures, after all). So it was necessary to industrialize, and to do it fast.<sup>13</sup> The 1930s saw extensive mining, metallurgical development, and massive city-building projects. Many new “socialist cities of the future,” such as Magnitogorsk and Novokuznetsk, multiplied in the Urals and associated regions. Soviet authorities relocated thousands of workers to these cities from all across the empire, who became critical in the production and supply of coal, refined iron, and steel.<sup>14</sup>

The most significant case of this urban revolution took place in Ekaterinburg. Today, Ekaterinburg<sup>15</sup> is the fourth largest city in the Russian Federation and an important center of education, cultural production, coal mining, and iron ore processing. But the city was not always this well-developed. In fact, until the late 1930s, Ekaterinburg was overshadowed by other, more prosperous Ural cities—Perm in the northwest and Cheliabinsk to the south. But after the Second World War, due to its strategic position further east, Ekaterinburg remained active and outside the sphere of German occupation, supplying the Red Army with tank parts, bombs, bullets, artillery shells, and military vehicles. In the post-war years, the Soviet government relied on Ekaterinburg to provide equipment and raw materials for reconstruction in

the west. Coal and other mineral resources in the regions around Ekaterinburg helped restore over one million kilowatts of energy infrastructure in the formerly occupied territories. Ekaterinburg factories produced new turbines and engines for urban centers in European Russia, and copper deposits contributed to the near-full electrification of Ekaterinburg itself.<sup>16</sup> New roads, railways, blast furnaces, and metallurgical factories transformed Ekaterinburg into the most important industrial center of the Urals, connecting it both to Western markets as well as Siberian natural resources in the east. It retains its place of prominence within the Russian economy to this day.

The Second World War provided the single greatest catalyst for the Urals transformation. The evacuation of industry, one of the greatest organizational feats in human history, was certainly a “hard” crisis, one that threatened the very survival of the empire. As Germany bombarded Russia’s western metropolises – Stalingrad, Kursk, Sevastopol, - the industrialization of Urals cities accelerated, fueled by the movement of wartime material and personnel to the region. Trainloads of equipment made their way to the southern Urals from Leningrad and Ukraine. Entire factories were wholesale disassembled and then reassembled in the east. Cheliabinsk became one of the world’s great tank-producing cities, while factories in Sverdlovsk produced specialized vehicle plating and armor-piercing rounds for the Soviet Union’s front-line infantry. In fact, Soviet troops were so elated to receive these desperately-needed supplies that they wrote letters of gratitude to factory workers of the major production centers – “Stalkan,” “Metallist,” and elsewhere.<sup>17</sup> Operation Barbarossa, of course, was the most serious crisis the Soviet Union ever had to respond to. It was once again the Urals industry and geographic security that saved the empire from utter destruction.<sup>18</sup>

The OPEC oil embargo of 1973 created yet another crisis for which the Urals held the answer. Widespread industrial corruption and managerial incompetence, a thriving black market for Western-produced goods, and the government's failure to push the empire into the computer age crippled internal development throughout the 1960s and 70s.<sup>19</sup> Though Soviet historians describe Leonid Brezhnev's 70s as a period of "stagnation," the discovery of rich oil reservoirs in West Siberia and Tiumen prevented complete economic collapse. Indeed, it is not outrageous to suggest that Urals oil saved the Soviet Union and prolonged its life for another 20 years. The sudden influx of revenue from the sale of oil not only revived the economy, but also established the Soviet Union as the number one exporter of oil by the 1980s, surpassing even the OPEC states themselves.<sup>20</sup> The sale of oil abroad became the Soviet Union's primary source of revenue, accounting for more than 80 percent of the USSR's hard currency.<sup>21</sup> Brezhnev used oil revenue to fuel economic growth in the Soviet Union's European satellite states while simultaneously increasing military spending.<sup>22</sup> Oil in the Urals and West Siberia rapidly overshadowed all other reserves in the empire, including the theretofore oil-rich regions of the Volga and northern Caucasus.

Gorbachev's *perestroika*, followed by privatization policies under Boris Yeltsin and his chief economic reformist, Yegor Gaidar, preceded the Soviet/Russian oil industry's gradual decline. The 1992 political-economic crisis disrupted oil production for many reasons: the consistently low prices of oil coupled with higher, free-market prices for the equipment and machinery necessary to extract it; the poor quality of Russia's existing machines; corruption among industrial managers and a general lack of coordination within the administrations of Russia's

fledgling oil companies; deteriorating quality of oil reserves; and more.<sup>23</sup>

However, it should be emphasized that in the northern Ural/West Siberian fields, there were always technical limitations to the development of oil infrastructure. Engineers chose well spots based on the convenience of their location, as pipelines and other transport infrastructure were still in their infancy.<sup>24</sup> Even the critically important Samotlor oil field experienced shortages of material, difficulties in paying for the maintenance of existing material (especially in the 90s), and confusion in administering its pipeline system, which is over 35,000 kilometers long. These issues, however, represent progress to be made, not a fundamental decline in the development of oil reservoirs. Today, a large amount of untapped oil resides in greenfields, such as isolated parts of Western Siberia (Khanty-Mansi) and undeveloped regions in Eastern Siberia and the Russian Far East (the Vankor cluster in north Krasnoyarsk, for instance). The remoteness of these fields has made it difficult for oil companies to import tech and develop the surrounding territories. Ongoing projects in the Urals, including railroad and federal highway network construction, the refining of high-grade metal, and the production of extraction and distribution equipment, will allow Russia to realize the full potential of the country's untapped reserves.

## A Pivot to the East

But will Russia seek to reorient its trading partners in the coming decades, and establish a foothold for itself in the Chinese metal and fossil-fuel market? And will these efforts be successful? Given the right circumstances, absolutely. The war in the Donbass and other parts of pipeline-rich Ukraine, along with

ongoing U.S. sanctions, have destabilized the future of Russian trade with the West. Furthermore, EU commitments to achieve carbon neutrality over the next 30 years as a part of its Green Deal pose an even graver threat.<sup>25</sup> If major gas-importing countries like Germany suddenly reduce or eliminate their demand for energy exports, Russian oil and gas fields will become mountains of fool's gold. China, on the other hand, is not going green anytime soon. The country possesses one of the highest demands for coal, timber (another Urals product), oil, and gas of any country on the global market. And, perhaps most importantly, China's leaders remain open to the possibility of a Russo-Chinese economic partnership. Both Hu Jintao and Xi Jinping have invested money in Russian development, specifically in projects connected with railways and terminal points via China's Belt and Road Initiative. Chinese funding has come from a variety of sources, including loan-issuing banks, the Silk Road Fund, and state-owned enterprises, and it has gone on to support some of Russia's most ambitious energy projects—the Yamal LNG project, the Siberia-Pacific pipeline, the Power of Siberia pipeline, and more.<sup>26</sup>

Some experts on the Russian economy and Russo-Chinese relations have been skeptical about Russia's so-called "pivot" towards trade with the East, particularly with China, but including Japan and Korea as well. In many cases, such skepticism is based on presuppositions about Russia's lack of economic competence.

Take corruption, for example. It is certainly true that Russian state-owned companies like Gazprom spent years selling energy to poor, fledgling, post-Soviet states like Ukraine (Gazprom's biggest customer prior to 2006) at lower-than-market prices, allowing Putin and his entourage of crony capitalists to exert

control over Ukraine and parts of the EU while enriching themselves through bribes and fraudulent transactions.<sup>27</sup> This was possible in large part because many former Soviet republics, particularly in Eastern Europe and the Balkans, have struggled to free themselves from Russia's shadow, relying as they do almost entirely on Russia for exports of certain goods and raw materials. But China is a big boy in the global energy market. Putin will not be able to manipulate General Secretary Xi in the same way as he might a Ukrainian energy minister. And if China decides to lean more heavily into the American market, Russia could be left with an ocean of oil and very few big-name partners to sell it to. In this case, Putin's consolidation of fossil-fuel enterprises into state-owned companies (Gazprom, Rosneft, Transneft), combined with the push to create a cohesive trading bloc through its Eurasian Economic Union initiative, is likely to help streamline the flow of capital, coordinate large, overland construction projects, and minimize corrupt trade practices in order to encourage the continued flow of Chinese money into Russia's developmental projects.

Another critique of the "pivot" is the reticence of Russian entrepreneurs to relocate from European Russia further east, particularly to Siberia and the Far East. Policy analysts claim that many Russians see such a move as a career killer because of the remoteness of the Russian frontier.<sup>28</sup> But this is just nonsense. In the first place, innovative traders have been making a fortune in Russia's eastern markets for more than three centuries, moving Chinese tea, Central Asian opium, and Russian furs and diamonds through lucrative border cities like Harbin, Manzhouli, and Khatanga. The idea that Russians are somehow oblivious to the economic potential east of Moscow is a vestige of imperial-era ethnocentrism,

hearkening to a time when tsarist ministers believed they might bring the nomadic peoples of Central Asia and northern China under the tutelage of the modern Russian empire (a perspective, it should be noted, largely absent among the Russians who actually lived in these places). In the second place, most of the untapped fossil-fuel reserves of the Russian Federation *are physically located* in the Urals, Siberia, and the Far East. Samotlor—the largest oil field in Russia and third largest on the planet—can be found in the Tiumen oblast', Urals Federal District.<sup>29</sup> One of the most promising gas fields in the country, Kovykta, is in East Siberia, in the Irkutsk oblast'. These resources do not care that they are located closer to the Chinese border than the European one, and the heads of Russia's energy industry do not care, either.

Some experts also claim that China might be hesitant to commit to investing in Russian infrastructure projects that might not pan out in the long run. This critique is a bit more credible, though we should take note that a good number of Russian oil and gas pipelines already terminate in China, that China remains one of the top importers of West Siberian coal, and that trade between the two countries to date has been moderately successful. For example, The Power of Siberia pipeline runs through northeastern China, and Gazprom plans to increase its capacity by the end of 2022 by adding gas from the Kovykta field to its flow. Also, China's stake in the successful Yamal pipeline has netted the country a reasonable profit, while tremendous volumes of oil make their way into Daqing through the Russian Eastern Siberia-Pacific Ocean oil pipeline.<sup>30</sup> If Russia's energy companies continue to follow through on large-scale, transnational building projects, while simultaneously discovering ways for old lines to increase their productivity, then there is no reason

to assume that Chinese policymakers and energy experts will doubt Russia's capacity to provide.

All of which returns us to the Urals. While Tatishchev's comments about the transnational character of the Urals were precocious for his time, his insight may prove a precursor to a more profound future for the region: Russia's window to the East. The Urals are certain to play a key role when the Russian Federation decides to make a significant transition from Western to Eastern markets. There is simply too much wealth, too much brimming potential, to be ignored. Samotlor is in the Urals. West Siberian coal and timber are bought and sold in the Urals. Ural metropolises like Ekaterinburg serve as administrative nexuses for trade and construction projects that cover distances ranging from Kazan to the Russian Far East. Some of the Russian Federation's largest energy companies have or have had their headquarters in the Urals.<sup>31</sup> The Urals continue to serve as a focal point of Russia's historical and contemporary military-industrial complex. All of this is to say that, in the coming decades, the Urals region will fill an analogous role to St. Petersburg, Peter the Great's famed "window to the West," which remains the center of European cultural exchange and international business. There is no reason to assume that a city like Ekaterinburg in the Urals could not fulfill that same function with Asia. And the Urals *have* been fulfilling this role for the past 300 years. It is past time we recognize that the resources and industry of the Urals region can provide Putin with the capacity to realize his intention to pivot to the East.

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The opinions expressed in this article are those solely of the author.

## Endnotes

1. Steven Pifer, "Managing US Sanctions toward Russia," *Georgetown Journal of International Affairs*, December 10, 2020, <https://gjia.georgetown.edu/2020/12/10/managing-us-sanctions-toward-russia/>
2. Diane Francis, "US Imposes New Sanctions to Kill Off Putin's Pet Pipeline," *Atlantic Council*, January 2, 2021, <https://www.atlanticcouncil.org/blogs/ukrainealert/us-imposes-new-sanctions-to-kill-off-putins-pet-pipeline/>
3. Steven Erlanger, "Pipelines from Russia Cross Political Lines," *New York Times*, October 7, 2019, [Pipelines From Russia Cross Political Lines - The New York Times \(nytimes.com\)](https://www.nytimes.com/2019/10/07/business/energy-environment/russia-pipelines-ukraine.html)
4. Executive Order 13685, issued December 19, 2014, [Federal Register :: Blocking Property of Certain Persons and Prohibiting Certain Transactions With Respect to the Crimea Region of Ukraine](https://www.federalregister.gov/documents/2014/12/19/2014-26811/blocking-property-of-certain-persons-and-prohibiting-certain-transactions-with-respect-to-the-crimea-region-of-ukraine)
5. Executive Order 14024, issued April 15, 2021, [14024.pdf \(treasury.gov\)](https://www.treasury.gov/press-releases/2021/04/14024.pdf)
6. *Country Analysis Brief: Russia* (Washington, DC: U.S. Energy Information Administration, October 31, 2017), 1. This is the most recent report available.
7. BP Statistical Review of World Energy 2020, [Coal – BP Statistical Review of World Energy 2020](https://www.bp.com/content/dam/bp/pdf/statistical-review/bp-statistical-review-of-world-energy-2020.pdf), 44.
8. Paul Dukes, *A History of the Urals: Russia's Crucible from Early Empire to the Post-Soviet Era* (London: Bloomsbury Academic, 2015), 79–81.
9. Theodore H. Von Laue, *Sergei Witte and the Industrialization of Russia* (New York: Atheneum, 1974), 12–13. See also Charters Wynn, *Workers, Strikes, and Pogroms: the Donbass-Dnepr Bend in Late Imperial Russia, 1870–1905* (Princeton, NJ: Princeton University Press, 1992), 31.
10. S. Bukolova, "Permskii Pushchennyi Zavod, Poezdka iz Kizela i Zavody Chusovskoi i Kushvinskii," in *Ural'skaia Zhel'eznaia Promyshlennost' v 1899 g.*, ed. D. Mendeleev (St. Petersburg: Tipografiia V. Demakova, Novyi per. No. 7, 1900), 59–68.
11. Borislav Chernev, *Twilight of Empire: the Brest-Litovsk Conference and the Remaking of East-Central Europe, 1917–1918* (Toronto: University of Toronto Press, 2017), 192.
12. The Kuznetsk Basin possessed the second-largest deposit of natural coal in the Russian Empire, behind only the coalfields of the Donets Basin. See I. N. Bagrova, et al., *Ekonomika Sverdlovsk: Prezhde i Teper' (Sverdlovsk: Sredne-Ural'skoe Knizhnoe Izdatel'stvo, 1967)*.
13. For example, Sergo Ordzhonikidze, Stalin's Commissar of Heavy Industry, demanded change in the factory administration to one-man management, requiring specific Soviet organs like Rabkrin and Vesenkha to establish yearly production quotas of iron and steel, while Stalin forced factory managers and middle-level industrial cadres to adopt a reinvigorated work ethic. Lewis H. Siegelbaum, *Stakhanovism and the Politics of Productivity in the USSR, 1935–1941* (Cambridge, UK: Cambridge University Press, 1988); and Hiroaki Kuromiya, *Stalin's Industrial Revolution: Politics and Workers, 1928–1932* (Cambridge: Cambridge University Press, 1988).
14. Stephen Kotkin, *Magnetic Mountain: Stalinism as a Civilization* (Berkeley: University of California Press, 1995).
15. Ekaterinburg was renamed "Sverdlovsk" in 1924, until the name was changed back to Ekaterinburg in 1991. For the sake of simplicity and familiarity, I will refer to it simply as "Ekaterinburg" throughout this article, including during the period 1924–91.
16. Bagrova, et al., *Ekonomika Sverdlovsk: Prezhde i Teper'*, 10–14.
17. Bagrova, et al., *Ekonomika Sverdlovsk: Prezhde i Teper'*, 10–12.



18. Alexander Werth, *Russia at War, 1941–1945* (New York: Carroll & Graf Publishers, 1964), 213. So monumental were the Urals to the war effort that they were responsible for the height of the Stalin cult of personality post-'45. The wartime mythology Stalin and his cronies crafted in commemoration of Soviet triumphs in WWII paid homage to the sacrifice of Urals factory workers, the importance of Urals-produced armaments and ammunition, and the miraculous coordination of Urals industries during the evacuation. For more on this, see John Barber and Mark Harrison, *The Soviet Home Front, 1941–1945: A Social and Economic History of the USSR in World War II* (London: Longman, 1991).
19. See, for example, Thane Gustafson, *Crisis Amid Plenty: The Politics of Soviet Energy under Brezhnev and Gorbachev* (Princeton: Princeton University Press, 1989). As the U.S. began outsourcing its extraction and refining industries, while simultaneously investing in Silicon Valley, Brezhnev doubled down on the promotion of single-factory towns and the revitalization of the Russian heavy-industry sector.
20. Dusko Doder, "Soviet Production of Gas, Oil Set Records over 6 Months," *Washington Post*, August 14, 1980.
21. Stephen Kotkin, *Armageddon Averted: The Soviet Collapse, 1970–2000* (Oxford: Oxford University Press, 2008), 15.
22. Kotkin, *Armageddon Averted*, 15–16.
23. A. A. Bokserman, V. P. Fillipov, and V. Yu. Filanovskii, "Part II: Oil Extraction," in *The Oil Industry of the Former Soviet Union: Reserves and Prospects, Extraction, Transportation*, ed. N. A. Krylov, A. A. Bokserman, and E. R. Stavrovsky (New York: CRC Press Taylor & Francis), 82.
24. Bokserman, Fillipov, and Filanovskii, "Part II," 77.
25. Mark Leonard, Jean Pisani-Ferry, Jeremy Shapiro, Simone Tagliapietra, and Guntram Wolff, *The Geopolitics of the European Green Deal* (London: European Council of Foreign Relations, February 2021), [The Geopolitics of the European Green Deal – European Council on Foreign Relations \(ecfr.eu\)](https://www.ecfr.eu/article/document/european-council-foreign-relations-ecfr/the-geopolitics-of-the-european-green-deal)
26. Jonathan E. Hillman, *China and Russia: Economic Unequals* (Washington, DC: The Center for Strategic & International Studies, July 15, 2020), <https://www.csis.org/analysis/china-and-russia-economic-unequals>; and Indra Overland and Gulaikhan Kubayeva, "Did China Bankroll Russia's Annexation of Crimea? The Role of Sino-Russian Energy Relations," in *Russia's Turn to the East: Domestic Policymaking and Regional Cooperation*, ed. Helge Blakkisrud and Elana Wilson Rowe (Cham: Palgrave Macmillan, 2018), 102–106.
27. In a simple process called "privileged trade," Putin sold gas to Ukrainian oligarch Dmytro Firtash at depreciated prices, who then resold the gas as a monopoly at a much higher price. Firtash kept some of the wealth and kicked a percentage back to Putin and his private band of business partners. For a more complete review of this process, and corruption in the Russian energy market more generally, see Anders Aslund, *Russia's Crony Capitalism: The Path from Market Economy to Kleptocracy* (New Haven, CT: Yale University Press: 2019), 155.
28. Dan Southerland, "Russia's 'Pivot to Asia' Fails to Gain Much Traction Beyond Arms Sales to Myanmar, Vietnam," *Radio Free Asia*, May 10, 2021.
29. *Rosneft Annual Report 2019* (Moscow, Russia), 49–51, [https://www.rosneft.com/upload/site2/document\\_file/a\\_report\\_2019\\_eng.pdf](https://www.rosneft.com/upload/site2/document_file/a_report_2019_eng.pdf)
30. On the success of Yamal, see Anna Mikulska, "Yamal LNG: Success Has Many Fathers, Indeed," Kleinman Center for Energy Policy (website), March 25, 2019, [Yamal LNG: Success Has Many Fathers, Indeed - Kleinman Center for Energy Policy \(upenn.edu\)](https://www.kleinmancenter.org/yamal-lng-success-has-many-fathers-indeed/)
31. Over the past 20 years, many of these companies have been absorbed into the state-owned mega corporations. TNK-BP, for example (integrated into Rosneft in 2013) was involved in large-scale oil and natural gas projects, such as development of the Kovykta field. On the buyout, see Vladimir Soldatkin and Andrew Callus, "Rosneft Pays Out in Historic TNK-BP deal Completion," *Reuters*, March 21, 2013, [Rosneft pays out in historic TNK-BP deal completion | Reuters](https://www.reuters.com/article/energy-rosneft-tnk-bp/rosneft-pays-out-in-historic-tnk-bp-deal-completion-idUSKCN181001)



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