

Impact of the Russian Invasion of Ukraine on Global Nickel Trade

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The Russian invasion of Ukraine has impacted the minerals and metals sector due to the abundance of natural resources in the region. One of the markets affected by the conflict is the nickel market. Russia has been a leading global supplier of nickel for decades, extending back to the breakup of the Soviet Union in 1991, which led to the privatization of its largest nickel producer and an ensuing surge in Russian nickel exports. In response to Russia's invasion of Ukraine in February 2022, many trade partners that imported nickel from Russia, including many in Europe and the United States, imposed sanctions and trade actions that curtailed imports of nickel from Russia. This situation could present potential supply challenges as nickel demand is anticipated to grow in the future.¹

Nickel is primarily used in stainless steel, alloying, and plating applications; and is emerging as a key component in lithium-ion batteries for electric vehicles (EVs). The nickel market is segmented into products commonly characterized as higher grade “class 1” refined nickel (suitable for all applications including batteries) and lower grade “class 2” nickel (primarily used in stainless steel but, in some cases, also in batteries after significantly more processing than class-1 nickel).

Russian Nickel Production: Russia is a global leader in production of both mined and refined high-grade nickel. In 2022, Russia produced 218,700 metric tons (mt) of mined nickel and 149,300 mt of refined nickel, ranking third largest globally for each, behind Indonesia and the Philippines in mining and China and Japan in refining. Russia's nickel reserves were estimated at 7.5 million mt, fourth most in the world. The leading Russian producer of mined and refined nickel is Norilsk Nickel (“Nornickel”), accounting for about 99 percent of the country's mined nickel output in 2019. Furthermore, according to the company, Nornickel was the leading producer of high-grade refined nickel, accounting for 17 percent of global output. About 75 percent of Nornickel's refined nickel metal and other products are produced at its refinery in Monchegorsk, Russia with the remainder of production coming from its refinery in Harjavalta, Finland (the largest refined nickel plant in Finland). Essentially all refined nickel produced by Nornickel is derived from its own mined feedstocks. Nornickel's operations are export oriented, selling about one-half of its nickel and other metals to European, one-third to Asian, and the remainder to Western Hemisphere and Russian customers during 2020–22. However, in 2023, these patterns changed and Asia becoming its largest market, accounting for 54 percent of Nornickel's metal sales for the first time in the company's history. Its net profits also declined by about 51 percent from \$5.9 billion to \$2.9 billion year-on-year in 2023.

U.S. Trade Actions: While it was reported that some U.S. firms ceased purchasing Russian nickel products after the Russian invasion, formal sanctions had not been imposed on Nornickel as of April 2024. However, the United States suspended Normal Trade Relations with Russia on April 9, 2022, and imports from Russia were subject to column 2 duty rates of the HTS.² Effective April 1, 2023, tariffs on imports of certain nickel products, including unwrought refined nickel (HTS subheading 7502.10.00) and nickel matte (HTS subheading 7501.10.00) were increased to 35 percent ad valorem. Separately, in December 2023, Russia was categorized as a “Foreign Entity of Concern” in proposed rulemaking by the U.S. Department of the Treasury, potentially making batteries containing critical minerals such as nickel from Russia ineligible for clean-vehicle credits under the Inflation Reduction Act of 2022. Subsequently, the U.S. Department of Treasury, in coordination with the United Kingdom, prohibited the importation into the United States of aluminum, copper, and nickel of Russian origin that was produced on or after April 13, 2024, and limited their usage on global metal exchanges.³

¹ Export data were not reported by Russia after January 2022, so import data reported by Russian trading partners (“mirror data”) are provided in this briefing.

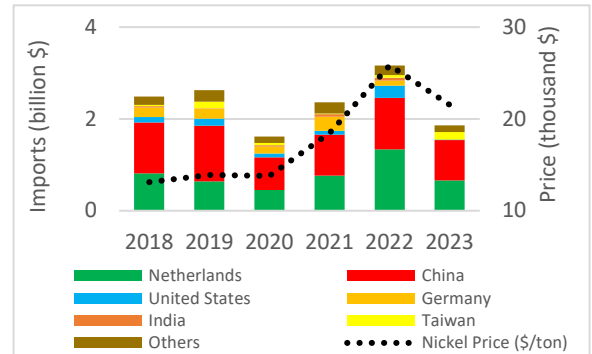
² See [Chapter 75](#) of the HTS for column 2 duty rates on nickel products. Pub. L. No. 117-110, 136 Stat. 1159 (April 8, 2022).

³ U.S. Department of Treasury, “[United States and United Kingdom Take Action](#),” April 12, 2024.

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International Trade: The leading nickel products that Russia exports, by value, are unwrought refined nickel and nickel matte (an intermediate product), accounting for the majority of its nickel exports during 2018–23. While refined nickel was sold broadly, nearly all of the nickel matte exports went to Nornickel’s plant in Finland for further processing. During 2018–22, global imports of refined nickel from Russia typically ranged between \$2 to \$3 billion annually, making Russia one of the top global suppliers of refined nickel (figure 1). While China and the Netherlands accounted for 75 percent of imports during 2018–22, Germany (8 percent), the United States (6 percent), and others imported substantial amounts as well. Illustrating a shift after the invasion, the total value of refined nickel imported from Russia in 2023 was 41 percent less than in 2022, coinciding with nickel price declines. In 2023, about 91 percent of refined nickel from Russia was imported by China, the Netherlands, and Taiwan, with no other importer accounting for more than 2 percent. Notably, imports by the United States, Germany, and the Netherlands declined precipitously in 2023. While China remained a post-invasion trade partner, it was reported that many Chinese firms were shifting to more abundant and inexpensive nickel from Indonesia instead of Russia. Russian exports of nickel to the Netherlands were most likely destined for other countries in Europe as the Port of Rotterdam is the single largest point of entry for Europe’s trade with Russia. As of May 2023, Nornickel planned to continue to deliver its nickel to European markets through the port of Rotterdam.

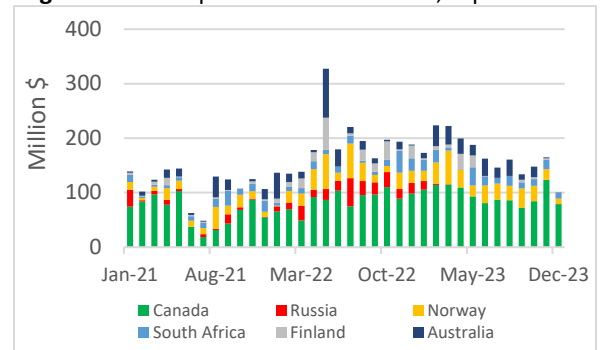
Figure 1. Global imports of refined nickel from Russia



Source: [S&P Global Market Intelligence](#), HS subheading 7502.10.

U.S. Imports: U.S. imports of refined nickel from Russia continued throughout 2022 after the invasion; however, the United States did not import any refined nickel from Russia after April 2023, coinciding with the increase in tariffs (figure 2). In 2023, U.S. imports of refined nickel from Russia were \$19 million, a 93 percent decline from \$264 million imported in 2022. While not subject to increased tariff rates, refined nickel imports from Finland (presumably inclusive of products from Nornickel) decreased as well, by 64 percent. In May 2023, Nornickel informed its U.S. customers that it was winding down sales of its nickel in the United States. The decline in imports from Russia were offset by increases from Canada, Japan, Norway, and South Africa.

Figure 2. U.S. imports of refined nickel, top sources



Source: USITC/Census [DataWeb](#), HTS subheading 7502.10.

Outlook: Prior to its invasion of Ukraine, Russia was considered a key source of nickel for the EV battery supply chain, especially in Europe. In 2018, BASF (Germany) announced plans to build a new battery materials plant in Finland adjacent to Nornickel’s refinery and signed a long-term agreement to purchase nickel and cobalt from Nornickel as inputs. In March 2022, BASF announced that it halted all new business with Russia; it was uncertain when the new plant would open as of early 2024. In the future, producers such as Australia, Canada, and Indonesia could supply more nickel to countries that ceased importing Russian nickel, however, potential issues exist. For example, nickel produced in Indonesia is lower grade and its production is associated with environmental concerns. Persistent lower nickel prices could also jeopardize the economic viability of nickel operations in other countries, potentially limiting new supply sources.

Sources: BASF, “[BASF and Nornickel](#),” October 22, 2018; EIU, “[Commodity Forecast: Nickel](#),” January 1, 2024; Executive Office of the President, “[Increasing Duties on Certain Articles](#),” March 2, 2023; IEA, “[Global Supply Chains](#),” July 2022; Kantchev, “[Chemicals Producer BASF](#),” March 4, 2022; Nornickel, “[Consolidated financial statements for 2023](#),” February 9, 2024; S&P Global, “[Metals and the Invasion](#),” February 24, 2023; S&P Global, “[Nornickel to Continue Delivering](#),” May 12, 2023; USGS, “[Metal Prices in the United States](#),” March 5, 2013; USGS, “[Nickel](#),” January 2023; USGS, “[2019 Minerals Yearbook: Russia](#),” February 2023; Bloomberg, “[Russia’s Largest Miner Is Selling](#),” March 1, 2023; Internal Revenue Service, “[Section 30D Excluded](#),” 88 Fed. Reg. 84098, December 4, 2023; Milewski, “[Nickel Supply](#),” July 19, 2023.

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