US-CHINA RELATIONS

Comparable to Germany before World War II? China's strategic metal reserves have attracted attention, especially copper and cobalt

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Artisanal miners working at the Rubaya mine in eastern Democratic Republic of Congo, Africa March 1, 2019 (File photo)

WASHINGTON — On Tuesday (June 18), the U.S. House of Representatives’ “Ad Hoc Committee on Strategic Competition between the United States and the Communist Party of China” announced the establishment of a bipartisan “Policy Working Group” to “focus on countering China’s control of critical mineral supply chains.”
China’s control and reserves of key mineral resources such as rare earths, lithium, copper (Copper) and cobalt (Cobalt) have increasingly attracted the attention of the United States and the West. In addition to worries about being too dependent on China for key minerals, China’s control and reserves of key minerals also make the United States and the West worried that China is preparing for a potential war.

At a recent hearing held by the US-China Economic and Security Review Commission (USCC) under the US Congress, some experts pointed out that the Chinese government’s strategic reserves in the field of copper ore are closely related to secondary There were “similarities” in Germany’s strategic reserves during the world wars.

Copper and cobalt have both military and civilian functions. Copper is indispensable for both infrastructure construction and the manufacturing of electric vehicles. On the other hand, due to copper’s corrosion resistance, it is also indispensable for the manufacture of weapons and equipment, including bullets, aircraft, and ships. Experts believe that tracking China’s reserves of strategic metals and other energy sources and monitoring their unusual activity could provide early warning of potential hostile actions by China.

China is the largest copper ore processing country

The latest data on global copper mines from the US Geological Survey, a scientific research institution under the U.S. Department of the Interior, shows that in 2023, China will continue to be the world’s largest copper ore processing and refining country. Its processing and refining output occupying 44% of the world. Although China’s own copper ore output accounts for less than 8% of the world’s copper ore output, and its reserves only account for 4% of global reserves.

In addition to leading the world in processing and refining production capacity, industry insiders have also noticed that despite the sharp decline in China’s real estate industry, overcapacity, and infrastructure construction shutdowns in recent years, according to Bloomberg News, China’s copper mining industry is growing rapidly. Extremely rapid expansion, new copper processing and refining facilities are emerging one after another. A considerable part of China’s overall copper ore demand is used for construction-related purposes.
A Reuters report on June 13 pointed out that “despite the unclear outlook for China’s domestic demand, China’s imports of unwrought copper from abroad remain strong, with 514,000 tons imported in May alone, which was 17.4% higher in April and 15.8% higher than the same period last year.”

The Reuters report also said that China’s imports of unprocessed and roughly processed copper ore from abroad have also increased. Meanwhile, in the month of April, processed copper output was 1.14 million tons, an increase of 9.2% over the same period last year.

China’s cobalt ore reserves have increased 50 times in the past 10 years.

In addition to copper, China’s market share and reserves of cobalt, another strategic metal, are also eye-catching.

American mineral economist David R. Hammond told VOA that cobalt has multiple strategic implications, including in electric vehicles and new energy industries. At the same time, cobalt is also an important component of jet engines and military radars, and has high military uses.

The African country of the Democratic Republic of Congo has the world’s largest cobalt mine, accounting for about three-quarters of the world’s production capacity. Currently, China controls 15 of the 19 cobalt mines in the Democratic Republic of the Congo. In addition, China is also the world’s largest cobalt ore processing and refining country.

According to industry insiders’ observations, in order to ensure near-total control over the world’s cobalt resources, China has repeatedly used price wars in an effort to discourage other countries from developing and producing cobalt and other key metals.

In the past year or two, the United States and some other countries have begun to rearrange their layout in an attempt to break China’s dominance in the supply of key minerals. However, almost at the same time that the U.S. government provided funds to encourage cobalt mining in the United States, cobalt’s The sharp drop in prices has largely forced a cobalt mine project in Idaho that had begun to enter research and development to halt operations.
Hammond, an ore economist, said in an interview with Voice of America that the plummeting price and the fact that the market price is currently lower than the production price are the reasons for the suspension of production of this project. Judging from the timing, it seems too coincidental.

Despite the plummeting price of cobalt, China’s cobalt mines in Congo will continue to significantly increase production in 2023. Industry insiders suspect that China’s purpose in doing this is to set the investment threshold high, thereby discouraging other investors from entering this industry and challenging China. Prior to this, China had adopted similar measures to force other countries to withdraw from the international market for antimony, another key metal.

Andrew Gulley, an economist and ore expert at the US National Geological Survey, pointed out in a written interview with VOA that although China controls 44% of the world’s cobalt mining capacity during 2022, the Chinese government still plans to Stockpile 57% of global cobalt mine production capacity in 2023.

Galli noted in his research that in the ten years from 2014 to 2024, the Chinese government’s purchases of cobalt ore for the National Strategic Reserve rose from 300 metric tons in 2014 to 8,700 metric tons in 2023. The planned purchase amount in 2024 is almost double that of 2023, that is, 150,000 metric tons. The strategic reserve has increased 50 times in ten years.

J. Peter Pham, the former U.S. special envoy to Africa, recently pointed out in an interview with Voice of America that although China’s investment in Africa has declined in recent years, so far, they have not seen any investment in Africa. Any significant decline in investment in the strategic minerals and metals sector. Apparently, this is because this area is considered strategically important by the Chinese government.

Strategic reserves, comparable to Germany before World War II?

Gregory D. Wischer, founder of Dei Gratia Minerals, an American mineral consulting company and researcher at the Colorado School of Mining Payne Public Policy Institute, June 13 At a hearing of the U.S.–China Economic and Security Review Commission (USCC), it was pointed out that China’s control and use of strategic metals such as copper and cobalt “have similarities” to Germany before World War II.
He analyzed the Chinese government’s strategic reserves in the field of copper ore in the form of written testimony and compared them with Germany’s strategic reserves during World War II.

“The typical situation is that when China wants to purchase strategic reserve resources, it generally does not announce it to the outside world; in terms of material selection, they focus on those ores, especially copper ores, whose domestic production is much lower than the demand; they also focus on on rare metals with special uses, such as cobalt,” he wrote.

Wischer pointed out that the language used by the US Geological Survey in 1938 to describe Germany’s mineral and mineral processing capabilities was very similar to the language used by the industry today to describe China’s mineral development and processing capabilities. He said that the report at the time said that among the world’s major industrialized countries at that time, an obvious feature of Germany’s economic structure was that its capabilities in the field of metal processing far exceeded the amount of related energy produced in the country.

In written testimony submitted to Congress, Wischer pointed out, “Currently, China is also mining a certain amount of metal ore, but the amount of ore it processes and refines far exceeds the ore output within its borders.”

He said that in view of this, Germany’s strategic reserve behavior before the invasion of Poland in 1939 made people think about whether China might be making preparations before invading Taiwan. It is worth pointing out that at the USCC hearing on June 13, many experts attending the meeting pointed out that China is preparing for the extreme situation of conflict in the Taiwan Strait and a head-on war with the United States. Experts attending the meeting also emphasized that the United States needs to pay more attention to China’s reserve capabilities and war mobilization dynamics from multiple perspectives such as military, finance, energy, and food.

Wischer said that to further understand China’s purpose of strengthening its strategic reserves of copper ore, one angle is to observe the difference between written consumption and actual consumption. Taking Germany as an example, he said that during 1937 and 1938, Germany’s copper ore consumption was much greater than the actual consumption of copper ore.
Wischer pointed out that Germany has not allowed the outside world to know the true ore consumption since 1935. The current situation is that it is difficult for the outside world to know the actual reserves and consumption of China’s strategic mineral products. He pointed out that China is not so strict in information control over reserves of zinc ore and other metals that do not have the same strategic significance to China, but for copper ore that is of high strategic significance, information control is much stricter.

This analyst said that there are many ways for the Chinese government to hide the specific amount of strategic reserves. For example, it may be said to the outside world that they are all for economic development, but in fact some of them are used as strategic reserves. In addition, due to the special relationship between the Chinese government and enterprises, the government can order mining companies to cooperate with the government; in addition, the Chinese government can also allow local governments to carry out strategic metal reserves, and these reserve resources will remain at the local level, rather than being transferred to a central reserve location.

Wischer also pointed out that before World War II, Germany also announced controls on metal products in 1936, saying it was part of the government’s "Four-Year Plan" aimed at national economic self-sufficiency. This is similar to China’s performance. The white paper "China’s Energy Development in the New Era" released by China at the end of 2020 said when describing the Chinese government’s energy reserve strategy that "national reserves should be combined with corporate reserves, and strategic reserves and commercial reserves should be given equal emphasis."

Wischer also reminded that whether it was Germany at the time or China today, it is possible to encounter critical and military-related strategic reserve information, denials, or deliberate misleading during the observation process.

Countermeasures by the United States and other countries

In addition to possible preparations for war, analysts said that after China successfully gained absolute dominance in the market, China also regarded strategic metals as a "chess piece" in the process of international political and economic games.

Following the export restrictions on gallium and cadmium announced in August last year, the Chinese government also announced export controls on rare earth elements such as graphite and mineral processing equipment late last year.
However, China’s approach has awakened Western countries and some developing countries. According to media analysis, the latest move of the “U.S.–China Ad Hoc Committee” is aimed at weakening China’s dominant position in the supply of critical minerals and reducing the United States’ dependence on China for critical minerals used in various products such as semiconductors, wind turbines, and electric vehicles.

In March 2022, U.S. President Joe Biden authorized the use of the Defense Production Act to encourage domestic production of materials needed to manufacture electric vehicle batteries and support the mining of key minerals such as lithium, nickel, cobalt, graphite, and manganese, and processing.

In addition to the United States, countries in the Alliance of Democratic Values, including Canada and Australia, have strengthened their review of China’s overseas mining enterprise investments to varying degrees to protect national assets and resources and reduce dependence on institutional opponents in related fields.

Shortly before Chinese Prime Minister Li Qiang visited Australia on June 15, Australian officials stated that based on national interest considerations, Australian Treasurer Jim Chalmers ordered a number of investors with ties to China to sell Australian rare earth miner Northern Mining (Northern Minerals) shares.

In 2022, the Canadian government announced new regulations that investment by foreign state-owned enterprises in Canada’s "critical metals" will require special approval. The government has compiled a list of 31 rare metals that it believes may threaten Canada’s sustainable economic development.

In addition to many industrial countries that have raised the security of key mineral supply chains to a strategic level, some developing countries are also taking measures to strengthen their control of strategic metals. Indonesia banned the export of nickel ore between 2014 and 2017 and has now become the world’s largest nickel producer, forcing Chinese companies to process the metal within Indonesian borders. Zimbabwe will ban artisanal lithium mining from the end of 2022, and lithium must not be exported without processing. In 2023, Namibia also took the same measures. Last year, Mexico issued a decree to nationalize its lithium reserves. Bolivia has torn up an agreement between its state-owned lithium producer and foreign companies.
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