

An Analysis of North Korea's Operation Mechanism to Acquire Foreign Currency: Centered on the Mineral Sector (Anthracite, Iron Ore)

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I. Introduction¹

The international community assumes that most of the profits from North Korea's mineral exports are diverted to the development of weapons of mass destruction (WMD) such as nuclear weapons and ballistic missiles. This belief has led to the implementation of strong export sanctions since the beginning of 2016. UNSCR No. 2270 of March 2016 prohibits the export of anthracite, iron ore, gold, titanium, vanadium, and rare earth materials, except for the purpose of public welfare. UNSCR 2321 (November 2016) imposed a quota on the ex-

port of anthracite (\$400 million or caps upon 7.5 million tons per year) which prohibits the export of silver, copper, nickel and zinc; UNSCR 2371 (August 2017) banned all exports of anthracite, iron and iron ore, lead and lead ore. Discussions on the effects of mineral sanctions have centered around not only the reduced exports of minerals from North Korea due to sanctions, but also the reduction of foreign currency flowing into North Korea, as well as North Korea's response measures to develop and expand other channels of acquiring foreign currency through smuggling. Academic and political attention has moved to the impact that these restrictive measures on mineral exports have had on North Korea's economy. As such, there is a great need to analyze the production and export mechanism of mineral products in North Korea in depth. As such, this study aims to analyze the North's mineral resources in a systematic manner, focusing particularly on the production and export of anthracite and iron ore, and the acquisition and distribution mechanism of foreign currency resulting from this trade. We analyzed the existing literature available and trade datasets from reliable sources, both domestic and foreign, to explore the portion of profits from

¹ The time frame of WEB statistical analysis ranges from 1991 to 2016 and therefore does not include any changes in trade between 2017 and 2018 when sanctions on North Korea were being reinforced. Regardless of peace talks between the North and the South as well as negotiations on denuclearisation, the trade of North Korea is being heavily influenced by the sanction. The result of this study shows the impact of sanctions upon North Korea's mineral export.

mineral exports going to the authorities and the markets, the possibility of minerals that were blocked for export to be used in domestic markets, and the impact of sanctions on the North Korean economy. In addition, we conducted interviews with defectors and parties engaged in mineral trade with North Korea, after which we cross-referenced the answers from all interviewees by asking identical structured questions.

II. Survey Results and Analysis

1. North Korea's Foreign Trade Operating System

Since the introduction of its New Trade System in 1991, North Korea's National Unique Trade System has gradually been decentralized as the power of the central government has declined. In particular, the decentralization of trade has gained momentum in response to the July 1 measures of 2002, and import activities for domestic market sales have been initiated. According to the Constitution of the Democratic People's Republic of Korea (extended version, as amended in 2016), North Korea's foreign trade authorities should expand trade significantly, simplify the requirements for external trade, procedures to attain permission to trade and conduct business, provide full autonomy in the process of planning and executing a trade plan and relaxing the terms to withdraw business and reducing the scope of central authorities. This series of actions are part of the national goal to achieve "Management of Economy in Our Unique Way" and aims to reinforce the process of decentralizing foreign trade. The operating system of foreign trade in North Korea has undergone several stages of decentralization, developing into a structure where trade promotes marketization and vice versa. The expansion

of imports and exports is inevitably contributing to the process of marketization. In other words, foreign trade is operated by central planning on the surface, yet in reality most of it is run upon market principles.

2. Policy and Status of Anthracite, Iron Ore Production and Export

① Production / Export policy

The basis of every economic policy pursued by North Korea is the "Independent National Economic Construction Route," which does not aim for a closed economy but rather for an extreme strategy of import substitution. Coal and iron ore are major raw materials for metal industries and thermal power plants, while iron ore is used in the metal industries. These resources are not mined for export purposes but to meet domestic needs. In the late 1990s, exports of mineral resources increased steadily as trade was allowed to exchange minerals with goods and equipment to improve productivity and promote heavy industries. Since the July 1 measures were taken in 2002 to improve management of the economy, the ministry has been targeting the increased export in minerals and derivative products and introduced foreign investment. Most of the companies investing in North Korean mines are Chinese. However, as the increased export resulted in a lack of supply for the domestic market, both the Kim Jong-il and Kim Jong-un regimes repeatedly attempted to suppress exports of anthracite and iron ore but failed to do so.

② Status of Production and Export

Before 2017, the increase of anthracite and

iron ore production in North Korea was mainly due to the increase demand of mineral by China and the resulting increase in investment by Chinese companies. North Korea's anthracite coal accounts for the majority of Chinese imports of anthracite. This is because Vietnam places restrictions on its exports, while North Korean anthracite possesses a comparative advantage in terms of unit price and transportation costs. The destination of anthracite from North Korea are Shandong, Jiangsu, Hebei and Liaoning, which account for 93.1% of China's entire anthracite import. The characteristic feature of North Korea-China anthracite trading is that there is a “kick back” practice of adding 7-15% of import price to the original price. North Korea's iron ore is its third major export product to China, following anthracite and textile. North Korean iron ore possesses significant price competitiveness due to its geographical proximity to China. Imported iron ore comes mostly from Jilin, Shandong, Jiangsu, etc., which account for 89% of China's total imported anthracite coal from North Korea.

③ Export / Domestic demand

The major purpose of producing anthracite and iron ore is to meet the domestic needs and export of those products. While there are side businesses to acquire foreign currency, the amount of export compared to that of production precipitously increased after the mid-2000s. 43-72% of the entire production of anthracite from 2011 and 30-55% of that of iron ore from 2006 are exported in order to secure the funds to import coke for steel manufacturing. There is a high chance that the consumption efficiency of anthracite and iron ore in North Korea has rapidly increased, and thus the amount of production could be underestimated, whereas the amount of export is accurate and the amount of export is overestimated.

There are numerous conjectures about this issue and therefore further investigation should be continued.

3. Actual Process of Exporting Anthracite Coal and Iron Ore

① Securing and operating an export base

North Korean anthracite coal mines are divided into those for domestic use and those for export. The anthracite for domestic use is produced and sold at a controlled price determined by the planning mechanism, whereas products for export are produced and sold at market price determined by market principles. The coal mines are classified into three types: the basic (state) coal mine, the self (small and medium) coal mine, and private mines. From the perspective of a trading company these are potential bases for export, especially when considering the main coal mines are exclusively dominated by the military. To start with, the basic (state) coal mine is operated to meet national demand in the areas of thermal power generation and steel making, and only a small part (10%) of the produced amount is allowed for export. Self (small and medium) coal mines have been transformed into a major place for the production of anthracite coal for export after receiving external investment and bouncing back since the 2000s, while the rest of small and medium scale coal mines were allocated to individual firms. These are operated under the name of a local people's committee, a state-run enterprise and a trading company financed by a North Korean patron or with Chinese capital.

In contrast to anthracite, iron ore mines, especially small and medium sized ones, have no

room for development or operation due to the high fixed costs and deficient power situations they work under. Production of iron ore for export is dominated by the Cabinet, as it is highly risky, low-profitable and requires a large scale quarrying infrastructure. Also, the poor power supply situations makes it difficult for an individual or trading company to get involved.

North Korea's mineral trade starts with securing an export base and acquiring mineral rights for this base. Closer scrutiny of the process of securing mining rights would indicate the following processes: select a suitable target place for mining development, conduct local inspections and feasibility checks, apply for mineral rights (this phases requires building a coordination scheme with the local political party, and establishing an administrative organization), and finally actual development of the mines (self-funded or through investment from China).

After the mine has been developed, management of human resources to enhance the quality of minerals for export should be a top priority. Relevant personnel will be adequately allocated based upon the size of the mines. In the case of mines for export, these provide free meals for their employees and therefore are highly competitive to secure a job at.

② Export procedures and transportation

If we look at the steps of the planning export and domestic procedures, the registration of the source of the export base is required of the authorities that handle export, after which a certificate of registration for export base is issued, followed by application for an export plan (established by the Department of Trade Planning at the Ministry of International Economy), and a customs declaration form is filled out.

In the stage of preparation for shipment and

transportation, it is necessary to report the amount of production and that of cumulative production (producer). A trading firm determines the shipment after securing the amount for the first export shipment, applies for an analysis report to the agency, signs a contract and proceeds with a review process (Ministry of Foreign Economic Affairs, and Price Affairs), after which products are finally shipped by train, lorry, or ship.

Most of the anthracite coal exports use marine transport. The main export ports of North Korea are Songling, Daeam, Nampo Port, and import sites on the Chinese side are located in Luzao, Yingkou and Dandong. Iron ore from Musan mines is transported by trains (freight trains in China) or using lorries (e.g. in the case of the Eun-yul mine, ore is transported by truck to Songlim Port before being exported to China by ship). Following a customs procedure and review stage to confirm the status of exports (conducted by the manager of the mine, and a trading company), the shipment goes through an inspection by the Central Foreign Products Inspection Office (Border Inspection Office), and submits a customs declaration form to various entities including the External Economic Transportation Branch Office and Border Customs.

The mineral trade between North Korea and China is carried out under the condition of Free on Board (FOB). China pays North Korea on an FOB basis, where the Communist Chinese customs house logs the fare including those for shipment and insurance payments based upon Cost and Freight (COF). The point of delivery for anthracite usually takes place at the North Korean port for the shipment, while iron ore products are delivered at the nearest train station from the sources.

③ Payment collection and processing

Mineral trade between North Korea and China operates upon a complex dual payment structure. In the “prepayment and post settlement” structure, 70% of the payment for minerals' trade proceeds are made immediately after the Chinese counterpart delivers the mineral to North Korea, and the remaining 30% is paid after quality inspection is completed in China. A portion of the proceeds from anthracite coal production is prepaid (about 30%) and the remainder is paid in the 'prepayment and post-payment' method. The payment is made in cash or in kind, but the proportion of cash settlement is overwhelmingly high. Most of the cash payments are made in US dollars and often in Chinese yuan.

The prepayment method most likely became a common practice because of the increase in demand from China and the excessive demand from the North Korean authorities. It is common for North Korean authorities to demand that they pay 30% of their sales, i.e. the export price, unconditionally, and even if a trading company is short of funds for production and operation, it will require advance payment to the Chinese counterpart. This is also the fundamental cause of disputes over outstanding payments between North Korean and Chinese trading companies.

After the completion of the transaction, the report on payments should be completed and the corresponding amount should be deposited at the Division of Finance and Foreign Currency. The final payment is deposited at the Chosun Trade Bank. The Bank manages the accounts of each trading company and reviews the application forms for payments in foreign currencies whenever necessary. After a careful review, it delivers the corresponding amount to the trading company. As for the finances of trading companies affiliated with the party,

military or security intelligence agencies, the Daesung, Gumsung, Changkwang, Shinyoung, and Ilshim Banks manage their accounts separately.

4. Estimation of Cost/Profit at Each Stage of Export

There is a high chance that North Korean trading companies are suffering from losses in mineral trade due to excessively high political and bureaucratic costs. Approximately half of the foreign currency acquired from minerals flows into the government in the form of processing costs, while the remaining 50% flows out into the market in the form of production (purchasing), transportation and processing costs during the production and export process. The aforementioned “kick-back” and rebate transactions between the North and Chinese trading companies have become internally established practices to compensate for loss and sustain the trade between the two. From 2000 up to the end of third quarter 2017, the value of minerals exported to the North Korean authorities and the private sector and the market is estimated to exceed \$5 billion each.

III. Policy Suggestions

1. Key Findings

The production of anthracite coal is strictly separated for purposes of meeting domestic demands and exports. They are produced for domestic purposes according to the in-kind index and supplied with the price determined by the state. On the other hand, the production for export is determined by the quantity demanded and

all the transactions from production to exports are made based upon market price. Iron ores are dominantly managed by central planning. Export of iron ores are not the means to acquire foreign reserves but to import coke for steel manufacturing and therefore, in-kind transactions are preferred to cash transactions.

Private capital in North Korea and Chinese capital play a crucial role in terms of producing and exporting minerals in North Korea. Chinese capital is deeply involved in the production of anthracite and iron ore, whereas private capital plays a larger role in the export and sales of anthracite.

Mineral exports from North Korea are suffering from the payments that need to be made to the authorities. In order to alleviate this burden, informal practices developed by Chinese and North Korean trading companies such as “kick-back” schemes and various rebate measures have become the norm. The money from exporting anthracite is flowing into the authorities, to the amount of almost half of the entire profits. This money is considered a driving force for rapid marketization occurring from the mid-2000s, which mainly took place in the currencies of US dollars and Chinese yuan.

2. Economic Impact of Mineral Sanctions

If Chinese funds are cut off due to mineral sanctions, it may become outright impossible to produce anthracite for export. The expenses of production and transportation of North Korea’s anthracite coal for export are covered by advance payments from China, and in order to raise the amount of production the amount of advance payments has to rise accordingly. However, in the presence of sanctions posed upon the flow of foreign currencies, it is difficult to expect such a

rise in production.

If production of anthracite coal is discontinued, the mines will become flooded with water and eventually have to be shut down. Regaining a sufficient level of productivity for anthracite exports would require a considerable amount of time.

In addition, it is expected that mines for domestic needs will suffer adverse effects from the food shortages in North Korea. The trading companies are providing food supplies for employees at the mines for domestic production, using profits acquired from mineral exports under strict orders from the authorities. As mineral export is terminated, the food supply for mining workers will become impossible and the amount of production for domestic market will plummet.

It is also expected that steel manufacturing industries will be struck hard due to sanctions on iron ore exports. If they are no longer subject for export which were used to import cokes, it is highly likely that there will be disruptions in steel manufacturing processes. Cokes can be imported with financial support from the government but this would exacerbate shortages of foreign currency.

3. Implications for North Korea Policy

First, it seems desirable that North Korean policy should maintain its basic stance of “sanctions first, engagement after.” At this point, it is dubious whether merely combining sanctions and involvement measures would be effective. If the current sanctions are pursued consistently for a certain period of time, this would exert a sufficient effect on North Korea to engage in negotiations. It would also contribute to removing

whatever leverage that North Korea tries to use in the negotiating table.

Second, although the effects of sanctions are somewhat delayed due to the nature of North Korea's trade in minerals, current sanctions imposed on North Korea are strong enough. Therefore, the intensity of sanctions should remain at current levels since consistency trumps the intensity. Despite the sanctions placed on North Korea, it has continued to complete its nuclear arsenal, for instance by launching intercontinental ballistic missiles. As a result, the international community is discussing more powerful measures such as cutting North Korea's oil supply and blocking sea transport. However, these measures are highly unlikely to gain support from China and could possibly result in unpredictable actions on the part of North Korea.

Third, it is necessary to clarify the compensation that North Korea can receive when it starts to show its commitment. The Korean government should work closely with the US, China, and other neighboring countries to establish the stipulations to relax the sanctions and disclose a roadmap.

Fourth, in the long run, a careful management of the bilateral relationship between North and South Korea is required in order to progress towards reunification. Bear in mind that the biggest victims of sanctions are the people, not the authorities in North Korea. The escalation of agony due to sanctions can be exploited as a means to justify hostility towards South Korea and the United States. Therefore, consistency in imposing sanctions, humanitarian assistance and cultural exchange in non-economic sectors should be unwavering and be dealt with separately from nuclear issues. **KIEP**