

Japan's National Economic Security Strategy and Implications for Korea

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I. Introduction

In the early 1980s, right after the second oil shock, the Japanese government held discussions on national economic security. In 1980, the Ohira cabinet pointed out the following three points as economic security measures: first, maintaining the free trade system; second, maintaining friendly relations with major economies; and third, self-rescue efforts such as maintaining stockpiling, self-sufficiency, productivity, and export competitiveness in basic industries.

However, since then and up to the inauguration of the Trump administration in January 2017, Japan has never discussed economic security in depth at the government level. This is because, as Japan was incorporated into the post-war liberal international order, the sentiment that Japan only had to focus on economic growth under the US-Japan alliance system established by the so-called Yoshida Doctrine

became deeply entrenched not only at the government but also at the corporate level as well.

Recently, the Kishida cabinet has been actively accepting the arguments of the Liberal Democratic Party (LDP), which insists that an economic security strategy should be established at the national level. The LDP summarizes the changes in the international order surrounding Japan as follows. First, the rift in the power balance due to the rise of China; second, the strengthening of economic statecraft to use economic means as a weapon to pursue interests; third, decoupling due to the intensification of the US-China conflict; and fourth, the increasing prioritization of national interests due to the COVID-19 pandemic.

This paper defines the concept of economic security strategy as “acts that deviate from the rules of the market economy by using eco-

economic power as a source of power in the perception that the state or national economy is threatened.” The scope of Japan's economic security strategy is divided into five categories: first, economic statecraft; second, securing of safety and trust in “critical infrastructure”; third, reinforcement of supply chains in critical materials; fourth, public-private R&D cooperation of critical technologies; and fifthly, cooperation in strengthening global supply chains with “like-minded partners.”

II. Reorganization of Government Organizations related to National Security

The Japanese government's control tower on national security is the National Security Council (NSC), which was reorganized by then Prime Minister Abe in December 2013 under the pretext of implementing a form of politics led by the prime minister. The National Security Secretariat (NSS), the secretariat of the NSC, was established in January 2014 and was initially composed of an information team, strategic planning team, policy groups 1–3, and the general and coordination group, after which an economic group was newly established in April 2020. In October 2021, Prime Minister Kishida established the Minister of Economic Security Affairs in the Cabinet Office with the inauguration of the Cabinet, and Takayuki Kobayashi, Secretary General of the New International Order Creation Strategy Headquarters of the LDP, was appointed as the first Minister. In November

2021, Prime Minister Kishida presided over a ministerial meeting called the Economic Stability Promotion Meeting. He also plans to establish a new economic security control tower called the Economic Security Division in the Cabinet Office when the Economic Security Promotion Act is passed at the regular National Assembly in the first half of 2022.

In line with the strengthening of the economic security policy, the Japanese government has begun adjustments in the direction of increasing public officials in positions related to economic security in 2022. The Ministry of Finance (MOF) and Ministry of Economy, Trade and Industry (METI) are requesting an increase in the number of public officials to strengthen monitoring in areas related to economic security, such as the review of foreign capital regulations following the revision of the Foreign Exchange Act and the introduction of the deemed export system. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) argues that it is necessary to increase the number of experts in establishing a cooperative system for monitoring technology leaks with universities and research institutes. The Ministry of Internal Affairs and Communications (MIC) is in a position where reinforcement is needed for supply chain analysis related to submarine cables and 5G technology. The Financial Services Agency (FSA) also plans to establish an economic security division which is in charge of preventing information leakage by financial institutions.

III. Japan's National Economic Security Policies

1. Economic Statecraft

The analysis of economic statecraft in this paper is based on David A. Baldwin (1985)¹, who developed the concept, and Robert D. Blackwill and Jennifer M. Harris (2016)², who argued for the introduction of US economic statecraft before the inauguration of the Trump administration. This study subdivides the types of Japan's economic statecraft into export control, technology transfer control, inward foreign investment regulation, and government procurement ban.

1) Export Control

Japan's representative means of economic statecraft is export control in effect within the framework of “security management trade.” The export control system can be said to begin with the Coordinating Committee for Multilateral Export Controls (COCOM) to prevent the leakage of technologies and products from the West, including the United States, to the communist bloc. After the dissolution of the Cold War between the United States and the Soviet Union, the international export control system was expanded to include the Nuclear Supply Group (NSG), which manages nuclear weapons-related materials and technology, the Australia Group (AG), which manages biological

and chemical weapons-related technologies, the Missile Technology Control System (MTCR), which manages missile-related technologies, and the Wassenaar Agreement (WA) governing strategic goods and dual-use items.

Japan significantly strengthened its export control system following the COCOM violation of Toshiba Machinery in 1987. The Japanese government enacted the Foreign Exchange Act as a basic export control law, and the Export Control Ordinance, Foreign Exchange Ordinance, and Export Trade Control Enforcement Rules as export control-related laws.

Japan's main export control system consists of List Regulation and the Catch-all Regulation stipulated by the Foreign Exchange Act. List Regulation targets dual-use items, and includes the weapon itself, together with high-performance general-purpose products and technologies that can be used as weapons or a part thereof. Japan's METI, like the US Department of Commerce, determines the items to be regulated based on a list created through agreement in the Wassenaar Agreement. The Catch-all Regulation targets items that are judged to be likely to be used for the development of weapons of mass destruction among items not subject to the list regulation. In July 2019, METI excluded Korea from the nation's list of white countries and at the same time implemented ex-

¹ David A. Baldwin. 1985. *Economic Statecraft*, Princeton University Press.

² Robert D. Blackwill and Jennifer M. Harris. 2016. *War by Other Means*, Harvard University Press

port control measures for three items of hydrogen fluoride, EUV photoresist, and fluorine polyimide, which are subject to List Regulation.

2) Technology Transfer Control

The issues that the Japanese government is struggling with as a measure to prevent the leakage of critical technology are the introduction of the security clearance (SC) system, patent nondisclosure, strengthening control over deemed export, and export control of emerging technologies.

In order for Japan to participate in Five Eyes, it is essential for academia and corporations to secure research integrity, but the lack of a security clearance system is pointed out as the biggest challenge. Of course, Japan also has a Secret Handler Qualification Verification system that examines the qualifications of state officials who handle important confidential information related to diplomacy and security, but this does not apply to academia and corporations. The Japanese government still feels a considerable burden in investigating researchers' criminal histories and other personal information, so prudence prevails in introducing the SC system in the Economic Security Promotion Act, which is scheduled to be presented at the regular National Assembly in March 2022.

The Japanese government pointed out that among the G20 countries, only Japan, Mexico, and Argentina disclose patent application information for sensitive defense-related inventions, indicating that there is a high possibility of

leakage of the inventions. The Japanese government is collecting opinions in the following directions under the premise of introducing a patent nondisclosure system in the Economic Security Promotion Act. First, on the premise that a patent non-disclosure system must be introduced, an agreement has almost been reached on the introduction of the confidentiality obligation for patent applicants and restrictions on overseas applications. Second, with regard to who will examine and select inventions subject to patent undisclosed, it is widely held that the Economic Security Division, which is scheduled to be installed in the Cabinet Office under the Economic Security Promotion Act, is involved. Nevertheless, it seems that the issue of setting the compensation range and amount for loss due to patent nondisclosure needs further discussion.

The Japanese government recognized the severity of critical technology leakage through domestic foreign students, etc., and introduced the “deemed export” regulation system implemented by the US Department of Commerce. Accordingly, when a Japanese university or company transfers critical technology, the Japanese government deems that transfer as an export, even if the counterpart is a Japanese national or a foreigner employed in Japan, if “strongly influenced by a foreign country.”

Currently, like the United States, the Japanese authorities recognize that it is most urgent to specify emerging technologies. The specific problem of emerging technologies stemmed

from the fact that the US Department of Commerce announced in August 2018 that it would prepare a control system for export, re-export, and domestic transfer of emerging technologies with the enactment of the Export Control Reform Act (ECRA). In April 2021, the Japanese government decided to include provisions in the Economic Security Promotion Act on the establishment of the Investigation and Research Institute on Economic Security within the Cabinet Office as a research institute dedicated to research on emerging technologies or critical technologies.

3) Inward Foreign Investment Regulation

In November 2019, the Japanese government emulated the US' decision to strengthen its pre-screening system for foreign investment through the enactment of the Foreign Investment Risk Review Modernization Act (FIIRMA) of 2018, strengthening regulations on foreign investment in Japan through the revision of the Foreign Exchange Act. This revision of the Foreign Exchange Act is characterized by, first, that the prior notification criteria required for foreign investors to acquire shares in Japanese companies belonging to core industries has been strengthened from "10% or more" to "1% or more," and secondly, that when a foreigner takes office as an executive or transfers or abolishes a business belonging to a "designated industry," prior notification is required. In May 2020, the Ministry of Finance of Japan released a list of 518 listed companies belonging to core industries.

4) Government Procurement Ban

- China's Huawei and ZTE's 5G communication equipment

In December 2018, the Japanese government, in keeping with the United States, banned the government procurement of Huawei and ZTE's 5G telecommunication equipment, while the US administration and congress are strengthening their vigilance on Chinese-made telecommunication equipment being used by the Chinese government for espionage. After that, at the US-Japan summit in April 2021, Japan agreed to set up a fund in which the US will invest \$2.5 billion and Japan \$2 billion for post-5G R&D, and to form a cooperative organization called the Global Digital Connectivity Partnership.

- Chinese drones

In October 2020, the Ministry of Economy, Trade and Industry (METI) of Japan announced the Government Agency's UAV Procurement Directive and instructed government agencies to replace high cybersecurity risks with low-level ones when procuring or outsourcing unmanned aerial vehicles. This is a measure to effectively exclude the use of Chinese drones in the field of government procurement.

2. Securing of Safety and Trust in Critical Infrastructure

The goal of “securing safety and trust in critical infrastructure” envisioned by the Japanese government is that in the event of an emergency that threatens the survival and maintenance of the nation or national economy in strategically important industries, the government will take measures from the viewpoint of national economic security. The Japanese government is concerned about the recent cyber-attacks on infrastructure enterprises, and the paralysis of the infrastructure industry due to information leakage through existing infrastructure facilities or software.

The Japanese government recognized that the current law regulating the critical infrastructure industry focused only on stable service supply and compliance with technical standards for facilities, and lacked any countermeasure against information leakage through cyber-attacks and the resulting paralysis of critical infrastructure facilities.

In response to the above criticism, the Japanese government plans to include the following in the Economic Security Promotion Act.

First, in order to secure the safety and trust of key infrastructure, the scope of regulated businesses, operators, facilities, and consignment is to be determined by law. Fundamentally, regulated infrastructure businesses are limited to those that cannot be replaced by other services or cause great disruption to people's lives or

economic activities if the stable supply of services is disrupted. Japan has selected six fields as critical infrastructure industries subject to regulation: energy, water supply, information and communication, finance, transportation, and postal services. Some sources refer to 14 fields including electricity, gas, oil, water, telecommunications, broadcasting, postal services, finance, credit cards, railroad, freight car transport, outbound cargo, aviation, and airport.

Second, the pre-examination system is being considered as a specific means to secure the safety and trust of critical infrastructure. The Japanese government asserts that it is necessary to obtain information on facility functions, details of consignment, information on facility suppliers and consignees, and information on supply chains or subcontractors that may be used for external interference. The pre-examination system requires critical infrastructure operators to report plans for facility introduction in advance, and the government examines whether the facilities, etc., are likely to be used for external interference.

Third, if the Japanese government judges that the facilities introduced by the critical infrastructure operators are likely to be used for external interference, it recommends that the critical infrastructure operators change or suspend the facility introduction plan. If the business operator does not comply with the government's recommended measures, the policy is to issue an order so that necessary measures can be taken.

3. Reinforcement of Supply Chains in Critical Materials

The Japanese government is targeting certain critical materials such as semiconductors, rare earths, advanced batteries, and pharmaceuticals to strengthen its supply chain. Critical materials refer to those essential for people's lives or economic activities, for which an interruption of supply due to excessive reliance on sources abroad may be difficult to replace and have a serious impact.

The Japanese government plans to designate critical materials through guidelines on the stable supply of critical materials, with the relevant government departments preparing concrete measures. In order to increase the effectiveness of the government guidelines, fiscal and financial support will be provided when a company designated as a critical material supplier submits a plan on supply stability and receives approval from the relevant government department. However, it is important to give local governments the legal authority to require businesses that import or sell goods designated as critical materials to report procurement and inventory status. The Japanese government initially considered imposing a fine of up to 300,000 yen if a company does not comply with the government's request, but this was withdrawn due to opposition from the business community.

The Semiconductor Strategy plan announced by METI in June 2021 shows a cross section of the Japanese government's plan to strengthen

the supply chain of critical materials, although it does not require related companies to submit plans on supply stability. The reasons for the Japanese government's promotion of the semiconductor strategy can be summarized in two main ways. First, amid the escalating conflict between the US and China, the crisis of disruption of the global semiconductor supply chain has risen rapidly. In 2021, as the cold wave in Texas, the fire at the Renesas Naka plant in Japan, and the drought in Taiwan overlapped, overseas automakers such as GM and Volkswagen, as well as Japanese automakers such as Toyota, Honda, and Nissan, had their car operations suspended due to a lack of automotive semiconductor chips (MCUs). Second, the global competitiveness of the Japanese semiconductor industry is declining. Japan's share of the global semiconductor market peaked at 50.3% in 1988 (36.8% in the US) and began to decline in the 1990s, falling to 10.0% in 2019.

The Semiconductor Strategy consists of: i) establishment of domestic advanced high-tech semiconductor factories; ii) strengthening of design and development of next-generation semiconductors; iii) green innovation of semiconductor technology; iv) regeneration of the domestic semiconductor manufacturing base; and v) promotion of international strategies from the perspective of economic security. Among these five strategies, the first strategy is directly related to supply chain reinforcing measures for economic security. The Japanese government regards the biggest weakness of its

semiconductor industry as the absence of a world-leading foundry, and aims to attract foreign high-tech foundries in a way that combines the strengths of the domestic semiconductor material and manufacturing equipment industry. In June 2021, METI succeeded in attracting the Taiwanese TSMC semiconductor plant in Kumamoto Prefecture, separate from the establishment of the TSMC Japan 3D IC R&D Center in Tsukuba. The customers of TSMC's new Kumamoto plant are expected to be the Sony Group or Toyota. In particular, the Sony Group plans to establish a CMOS image sensor semiconductor main plant in Kumamoto Prefecture. METI amended the relevant laws to allow the government to provide subsidies to TSMC's Kumamoto plant construction in December 2021, and plans to subsidize 400 billion yen, half of the TSMC's total investment of 800 billion yen.

4. Cooperation in Strengthening Supply Chains with “Like-minded Partners”

Japan places great importance on global supply chain cooperation through “like-minded partners,” especially QUAD. In March 2021, the QUAD leaders confirmed the need for decentralization of the rare earth supply chain, and agreed to jointly develop rare earth production technology, and to co-finance rare earth mining or refining. However, there is still pessimism that rare metals, including rare earths, have strong regional ubiquity and are greatly affected by export regulations of endowed countries, so there is a limit to establishing a stable supply chain through a joint response by

the QUAD. Not only Japan but also the United States harbors a strong sense of crisis that China may impose an export ban on rare earths at any time, as their dependence on imports of rare earths from China has reached 70-80%.

At the summit meeting in September 2021, the QUAD countries adopted a joint declaration on economic security, including the policy of establishing a trustworthy supply chain for semiconductors and 5G communication equipment. With regard to the global supply chain of semiconductors, the QUAD countries plan to investigate the supply capacity and identify weak areas, and then take measures to strengthen the safety of the supply chain. Also, regarding the prevention of technology leakage and abuse of advanced technologies, including the high-speed communication standard 5G, the QUAD countries agreed to cooperate in preparing countermeasures to prevent technology leakage or abuse.

IV. Conclusion

This paper examines the economic security strategy adopted by the Japanese government amid escalation of the US-China conflict since the inauguration of the Trump administration in January 2017. The scope of Japan's economic security policy is divided into five categories: i) economic statecraft, ii) securing of safety and trust in critical infrastructure, iii) reinforcement of supply chains in critical materials, iv) public-private R&D cooperation of critical technologies, and v) cooperation in

strengthening global supply chains with like-minded partners.

Among these five categories of economic security policies, the fields that the Japanese government has focused on are economic statecraft and supply chain reinforcement. In the case of the former, the export control measures to South Korea in July 2019, the strengthening of pre-screening for foreign investment in November 2019, and the ban on government procurement of 5G communication equipment from Huawei and ZTE of China in December 2018 are representative examples. The common point is that these measures were possible only through revision of existing laws such as the Foreign Exchange Act. In the latter case, the Semiconductor Strategy announced by METI in June 2020 is a representative example. In particular, the Japanese government amended the relevant laws to provide government subsidies for the establishment of a domestic semiconductor plant by Taiwanese TSMC.

The current Kishida cabinet plans to submit the Economic Security Promotion Act to the National Assembly in March 2022. The Economic Security Promotion Act consists of the following four pillars: i) reinforcement of supply chains in critical materials, ii) securing of safety and trust in critical infrastructure, iii) public-private R&D cooperation in specific critical technologies, and iv) patent disclosure. This shows the government's intention to implement the economic security policy through

new laws in the areas of Japan's economic security strategy mentioned above that cannot be implemented under existing laws.

The legal spirit pursued by the Economic Security Promotion Act is basically in line with the economic security strategy. In other words, the current bill for the Economic Security Promotion Act deviates from the principle of market economy. The most representative example is a regulation that provides fiscal and financial support (i.e., carrots) to companies that comply with government policies, and imposes penalties (i.e., whips) for companies that do not comply in order to increase the effectiveness of the law. For example, when a company designated as a key infrastructure industry introduces important facilities, it must submit a plan to the minister of the relevant department. If a company fails to submit a plan or submits a false plan, the draft stipulates that up to two years in prison or a fine of up to 1 million yen be imposed. And, in the case of divulging confidential information obtained by a person concerned in the process of R&D cooperation for a specific critical technology, the law (draft) stipulates imprisonment for not more than one year or a fine of not more than 500,000 yen. Of course, these penalties may be withdrawn from the bill during the coming parliamentary review. The Japanese government initially considered imposing a fine of not more than 300,000 yen if a company designated as a critical material supplier does not comply with the government's request, but it was withdrawn due to opposition from the business community. However, this clearly

shows that the Japanese government, which must increase the effectiveness of the law, is in a policy dilemma over carrots and whips.

From the point of view of economic security, Korea's environment appears to be similar to that of Japan. Above all, as the COVID-19 pandemic prolongs, the supply chain of production factors such as semiconductors and raw materials is more unstable than ever. However, considering that Korea's economy is much more dependent on foreign countries than Japan's, and that the economic growth model best matches the liberal international order, it is a risky strategy to follow the Japanese government's economic security strategy as it is.

In other words, for the Korean government, it should be noted that economic statecraft policies such as export controls and technology transfer controls conflict with open trade policies and have a high potential to deteriorate the competitiveness of Korean companies. And, the Korean government should respond to supply chain risks of raw materials and other production factors after reviewing economic feasibility to see if supply chain stability can be achieved through a policy that combines so-called “carrots and whips” for companies. Also in the critical infrastructure industry, emphasis should be placed on institutional support for the company to voluntarily take cybersecurity measures. Instead, the Korean government needs to consider establishing a public-private R&D cooperation platform that researches and fosters critical technologies that

will influence Korea's security, under the premise that the US-China conflict continues unabated. As a mid- to long-term economic security strategy, it is also very important for the Korean government to actively participate in international cooperation in the US-centered global supply chain. [KIEP](#)