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RESEARCH ARTICLE

Securitizing high-technology industries: South Korea–Japan dispute over materials–parts–equipment products

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Abstract

The Japan–Korea whitelist dispute (2019–2023) embodies key features of interstate disputes related to economic statecraft ideas. Against the backdrop of the legal dispute over Japan's "essential security interests" claim based on GATT Article 21 (Security Exceptions), this study analyzes South Korea's response to the whitelist dispute, with a focus on its materials–parts–equipment localization policy. The findings indicate that the policy process and outcomes align with very few of the criteria suggested by the new industrial policy literature. Notably, the policy's goals and tools were driven by ideology rather than by science, and the implementing agency—The Ministry of Trade, Industry, and Energy—while competent, was politically captured. In conclusion, this study suggests that policymakers should purposefully and consciously connect security with trade or implement industrial policies within a well-defined strategic framework.

Keywords: industrial policy; GATT Article 21 on security exceptions; materials; parts; equipment (MPE) localization policy; whitelist dispute between South Korea and Japan

Introduction

Today, no prominent trading countries openly endorse mercantilism. The infamous managed trade policies pursued the U.S. in the 1980s and 1990s faced significant criticism for their "aggressive unilateralism." Initially advocating for reciprocity and fair trade within the framework of free trade, the U.S. saw its stance become entangled in pork barrel politics, jeopardizing the principle of multilateralism. These actions have eroded the leadership position of the U.S. since then. However, the persistent temptation to intervene not only in the rules but also in the outcomes of trade has spread to the rest of the world over the past decade.[1]

South Korea and Japan are no exceptions. South Korea is Japan's third-largest trading partner, while Japan holds the fifth position for South Korea (third in terms of imports). Japan boasts the third largest GDP after the U.S. and China, while South Korea holds the thirteen position as of 2022. Both South Korea and Japan are significant global economic powers. In the post-war period, these two neighbors co-authored a success story in economic terms. By the 1980s, South Korea was frequently cited as a successful case of "nation-building through trade." In the new millennium, it has evolved into a major trading state, with the share of trade (exports + imports) in its GDP reaching 70%.[2]

Yet, the otherwise productive bilateral relationship has been in jeopardy for over a decade due to the weaponization of economic interdependence. One of the recent diplomatic and economic conflicts began in October 2018 when Japan vehemently opposed the South Korean Supreme Court's decision on

[1]Koo (2021a: 1–6).

[2]In 2018, the U.S. had a trade dependence of 21%, Japan 28% and China 34%. Among East Asian countries, Malaysia (130%), Singapore (207%), Taiwan (96%), and Thailand (101%) were more trade-dependent than South Korea. However, their GDP is relatively small, and the proportion of intermediary trade is high, making a simple comparison difficult. Among the G20 countries with economies equal to or larger than South Korea's, only Mexico (74%) and Germany (71%) were more trade-dependent than South Korea (http://kosis.kr/index/index.do).

wartime forced workers. The South Korean court ruled that the assets held within South Korea by colonial collaborators, such as Nippon Steel & Sumitomo Metal Corp. and Mitsubishi Heavy Industries, Ltd., were to be seized and sold to compensate South Korean victims.

Japan has a whitelist system—also known as the group of countries subject to simplifying export procedures—in relation to the export of key high-tech products. In the summer of 2019, the Japanese government announced its intention to strengthen export restrictions against South Korea on three critical items: fluorinated polyimides, photoresist, and high-purity hydrogen fluoride, all essential for the manufacturing of liquid crystals and semiconductors. While the Japanese measure did not outright ban the export of these key materials, it was anticipated that if the procedure and period for export permission were extended by excluding South Korea from the simplification list, the same practical effect as blocking exports would occur.

In a dramatic turn of events in June 2023, Japan lifted the restrictions and declared that South Korea would be included in the whitelist again. This belated yet welcome restoration was largely attributed to the diplomatic rapprochement between the two countries' new leadership—Prime Minister Fumio Kishida in Japan and President Yoon Seok Yeol in South Korea.[3] It was also motivated by the mutual recognition of small wins, if any, at the expense of significant long-term losses on both sides.

The tug of war involving high-tech industries warrants structured scholarly attention and invites an in-depth case study, particularly regarding South Korea's ambitious yet abrupt response to Japan's trade-restrictive measures. This case clearly illustrates the international power implications of trade. Japan's stated reason for imposing restrictive measures was that South Korea had jeopardized Japan's security by illegally re-exporting strategic materials from Japan to hostile countries like North Korea and Iran. Beneath the surface, however, it was an attempt to showcase Japan's direct influence on South Korea's high-tech industries, which are both sensitive and vulnerable to supply disruptions. South Korea wasted no time and, in late 2019, requested the World Trade Organization (WTO) Dispute Settlement Body (DSB) to establish a panel to rule on Japan's complaint and retaliation of removing South Korea from the whitelist.[4]

Notably, the Japanese move served as a wake-up call to South Korea's interventionist instinct with an ambitious goal of localizing core materials–parts–equipment (MPE) products. The then-Moon Jae-in government initiated efforts to enhance domestic production of core MPEs. Several policies were introduced to strengthen the country's industrial base and promote domestic production of core MPE products, which were predominantly imported from Japan. The Moon government emphasized that the development and production of key materials, parts, and equipment in strategic industries such as semiconductors, automobiles, shipbuilding, and renewable energy were crucial for national security and survival against all external (Japanese) threats.[5]

[3]In March 2023, President Yoon took the first step by announcing the South Korean government's plans to compensate victims of forced workers through government-backed private funds, rather than seeking reparations from Japanese companies. While this move sparked protests from opposition parties and groups in South Korea, Prime Minister Kishida welcomed Yoon's good will to mend fences before it was too late. The new compensation plan improved bilateral relations, and both leaders agreed to resolve the trade dispute during their summit meeting in Seoul in May. The Yoon government withdrew South Korea's complaint against Japan from the WTO. In late June, the Japanese government announced its decision to restore South Korea to its whitelist, thereby lifting the final restriction from a four-year-long trade dispute (Borowie 2023; *Japan Times* 2023; Kim 2023).

[4]The Japanese attempt to connect its "essential security interests" with core trade issues could have found endorsement under GATT Article 21 (Security Exemptions). Operating under the umbrella of securitization, it has been generously applied with sufficient legal weight, considering that contracting parties have the right to determine their own core security interests. Meanwhile, it is noteworthy that Article 21 has functioned as a release valve for the GATT, a framework built on the imagined reality of 'gains from trade' and postwar neoliberalism. Contracting parties have frequently Article 21 to vent their trade and security-related anxiety and frustrations when pressure or tension exceeds preset limits. Beyond its legal aspects, Article 21 serves as a pragmatic tool for bringing underlying political tensions between trading partners to the surface. Whether intentionally or not, Japanese trade-restrictive measure effectively served that purpose. The author credits Sarang Shah of UC Berkeley for discussing this point in an earlier version of this study presented at a conference in January 2023.

[5]To support this objective, the government has implemented various measures, including but not limited to financial incentives and support for R&D activities in these sectors. Additionally, there have been efforts to facilitate collaboration between industries, government-funded research institutions, and government agencies to enhance technology development. The Moon government pledged to support around 100 leading MPE firms, with the aim of more than tripling the number of items to reduce foreign dependence (Lee 2020).

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This study delves into the origin and evolution of South Korea-Japan dispute over Japan's trade-related security concern and critically evaluate South Korea's localization policy against the backdrop of the growing trend of securitizing high-tech industries. The remainder of this study unfolds in four sections.

"Theoretical and conceptual background" establishes the theoretical and conceptual background against which this study is framed and proposes the research hypotheses. It discusses the persistence of the economic nationalism idea continues in today's discourse on economic statecraft. This section highlights the distinct economic and technological context for interventionist economic policy and notes that scholarly discussion has moved beyond the normative question of whether governments should engage in market activities. Drawing from the literature, this section outlines conditions under which industrial policies are more effective.

"Economic statecraft in the whitelist dispute" provides a detailed empirical background of the whitelist dispute. In response to South Korea's Supreme Court ruling, Japan argued that its essential security interests had been breached by South Korea's loose export control regime. Japan's economic statecraft strategy provoked South Korea, leading to the filing of a complaint with the WTO DSB and the initiation of the MPE localization policy. In the context of growing global inclination towards weaponizing and securitizing economic interdependence, this section outlines the interplay between South Korea and Japan. It also examines the merits and limitations of Article 21 (Security Exceptions) of the General Agreement on Tariffs and Trade (GATT), focusing on the controversial question of "essential security interests."

"Evaluating South Korea's core MPE localization policy" explores the evolution of South Korea's MPE localization policy and evaluates its performance from a new industrial policy (NIP) perspective. This section reveals that South Korea's track record from 2019 to 2021 failed to meet most of the criteria proposed by the NIP literature. The policy efforts and subsequent errors demonstrate the risk of moral hazards inherent in the practice of selecting "winners and losers." Excessive securitization of trade, where everything is deemed critical for national security and thus eligible for government support, poses a significant threat to sound industrial policies.

"Conclusion" summarizes the argument and provides policy suggestions. It concludes that when implementing economic statecraft, particularly security-motivated industrial policies, policymakers must deliberate and act self-consciously rather than surreptitiously and without an overall strategic framework.

Theoretical and conceptual background

The economic statecraft idea

In recent years, the securitization of international trade has garnered increased attention.[6] Notably, discussions on economic statecraft, spanning economic sanctions, trade policies, investment strategies, and financial measures, have captured the interest of scholars and policymakers. Aggarwal and Reddie have been particularly active in this field, examining various forms of economic statecraft and analyzing how states utilize economic instruments to influence the behavior of other states, advance national interests, and achieve geopolitical objectives.[7] Their research highlights the intricate and multifaceted nature of economic statecraft, recognizing that it encompasses both coercive and cooperative measures.[8] Economic statecraft can thus exert pressure on other states, incentivize preferred behavior,

[6]Koo (2011).

[7]Aggarwal and Reddie (2020, 2021, 2022).

[8]Albert Hirschman identified two unintended political and power implications of trade for participating parties. Firstly, there is the indirect supply effect. By enriching the supply of certain goods or replacing less-needed goods with more-needed ones in terms of national power, trade can enhance a nation's potential military power. The second is the direct influence effect. Trade extends beyond simple interdependent relationships between countries and creates connections in which one country can exert coercion on another. When trade is severed or disrupted, power relations are divided based on who suffers more damage (sensitivity) and who can afford it (vulnerability). The country that suffers less damage, and even if damaged, can more easily find a new source of supply to replace existing imports or exports, holds an advantage (Hirschman 1980(1945): 13–40).

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or establish economic interdependencies that foster stability and cooperation. Additionally, they explore domestic and international factors shaping the effectiveness of economic statecraft, including the role of domestic politics, economic interdependence, international institutions, and the power dynamics among states.[9]

The aggressive trade policy of the Trump administration, operating under the guise of "America First," stands as a worst-case example of economic statecraft. Leveraging the asymmetric power relationship between the U.S. and its trading partners, Trump's policy plunged America's trading partners into chaos. Countries with significant trade surpluses with the U.S., such as China, Japan, and South Korea, faced threats of being labeled as currency manipulators and subjected to trade restrictions.[10] The revival of neo-mercantilism has further intensified the trade-security nexus, evident in the battle for techno-hegemony amid high-stakes geopolitics and geo-economics.[11]

Against the backdrop of growing interest in economic statecraft, industrial policy is back in fashion. The theoretical and normative debate has thus far revolved around the question of whether governments should intervene in market activities at all. However, the question of how they should do so is increasingly becoming relevant and prevalent. Governments have always implemented policies to promote industrial activities. Even during the heyday of free trade and market fundamentalism, major trading states embraced interventionist policies to support their domestic industries, often under the disguise of national security and economic prosperity.[12]

As noted by Paul Krugman back in the 1980s, the practical implications of interventionist policy to support particular industries deemed strategically important are complex.[13] Nevertheless, scholars have developed a theoretical justification for industrial policy based on technological and learning externalities, as well as coordination failures. Even in the U.S., some form of industrial policy has never been scarce and is likely to persist. Defense-related industries, in particular, have been the principal beneficiaries of government subsidies and procurement programs.

The economic crisis that struck the world economy in 2008 was a decisive moment that brought industrial policies back onto the stage in full force. It united mercantilism with protectionist populism and the idea of economic statecraft, especially in the affluent world. The restructuring efforts, inevitable during the global financial crisis, inflicted significant pain on workers and caused protectionist thinking to resurface in the political marketplace. Many observed that neoliberal assumption of a non-interventionist government generating greater prosperity for all was contradicted by the rising inequality, economic insecurity, and labor market polarization worldwide, affecting both the rich and poor. Governments are increasingly seen as a last resort. The Covid-19 pandemic exacerbated the situation, but the protectionist clock had already been set in motion even before the pandemic struck, threatening to disrupt global trade.[14]

A new industrial policy framework

Indeed, there is a growing recognition, even among economists, that government intervention under certain circumstances can promote specific industries or sectors, thereby fostering national security and economic growth. Additionally, there is a concerning awareness regarding China. Its industrial and technological ascent is exemplified by *Made in China 2025*, which aims to achieve global dominance by the centennial of the Chinese Communist Party in 2049 across ten high-tech industries, including

[9]Also, refer to the lead article in this special issue volume.

[10]Koo (2011); Aggarwal and Govella (2013); Motohiro (2019); Solis (2020); Aggarwal and Reddie (2021, 2022).

[11]U.S. President Joe Biden, who assumed office in January 2021, declared the dismantling of Trump's legacy. However, amid the Covid-19 pandemic, his administration has yielded mixed results in terms of altering the course of the U.S.-China trade dispute. It is reasonable to expect that the mercantilist twist of U.S. trade policy will persist for some time.

[12]Rodrik (2007, 2021, 2022); Sitaraman (2019).

[13]After examining the ways in which strategic trade policy works, Krugman (1987: 132, 143) concludes: "Free trade is not passé, but is an idea that has irretrievably lost its innocence . . . This is not the argument that free trade is optimal because markets are efficient. Instead, it is sadder but wiser argument for free trade as a rule of thumb in a world whose politics are as imperfect as its market."

[14]Rodrik (2017); Walt (2020); Koo (2021a: 61–62).

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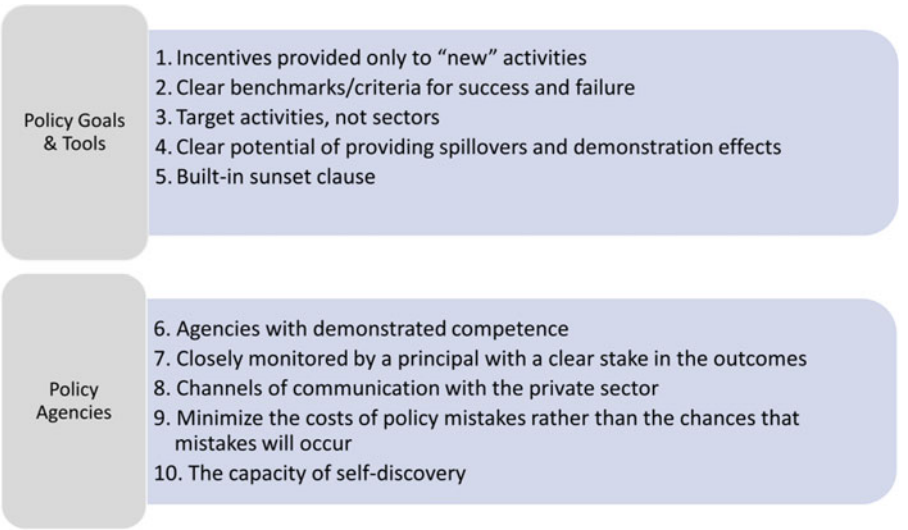

Figure 1. Ten Design Principles of NIP by Dani Rodrik.
Source: Adapted from Rodrik (2007) by the author.

next-generation information technology, electric vehicles, advanced rail and shipbuilding, high-end numerical control machinery and robotics, and aerospace and aviation equipment.[15] Such a perception of a "China threat" has resulted in a near-consensus in the rest of the world that governments need to respond by enhancing key technology and industrial capabilities.[16]

Among others, Dani Rodrik emphasizes a strategic approach to industrial policy that reflects on a country's unique conditions, capabilities, and market failures. According to him, successful industrial policy should concentrate on creating a conducive environment for business to thrive rather than picking winners or specific companies.[17] Along this line of thought, he suggests some design principles for new industrial policy, which can be categorized into two different but related dimensions: (1) policy goals and tools and (2) requirements for government agencies, as illustrated in Figure 1.[18]

In the following sections, this study shifts focus to the Japan–South Korea whitelist dispute and South Korea's industrial response to Japan's restrictive measures. The South Korean case, operating under the guise of economic nationalism, serves as both a to-do and a not-to-do example of economic statecraft and industrial policy. By leveraging anti-Japan sentiments within South Korea, the then-South Korean government not only strained bilateral economic ties to a breaking point but also incurred significant opportunity costs for South Korea's industrial ecosystem.

[15]China has made consistent efforts to promote its technological capabilities through direct and indirect subsidies, procurement programs, and other preferential incentives. In the face of rising criticism for its offensive characteristic, Beijing holds a low-key approach in recent years. But, its ultimate ambition to build high-tech dominance remains intact. To many outside observers, the Middle Kingdom is thus no longer "hiding its brightness (*tāoguāng*)" as it has "bided its time(*yanghui*)" sufficiently enough to take the leading edge in the world stage (Choung and Koo 2023: 117–118).

[16]Rodrik (2022); Siripurapu and Berman (2022).

[17]Rodrik (2007, 2017, 2021, 2022).

[18]He lists ten design principles that can inform the formulation of the resulting industrial policies: (1) Incentives should be provided only to new activities; (2) There should be clear benchmarks/criteria for success and failure; (3) There must be a built-in sunset clause; (4) Public support must target activities, not sectors; (5) Activities that are subsidized must have the clear potential of providing spillovers and demonstration effects; (6) The authority for carrying out industrial policies must be vested in agencies with demonstrated competence; (7) The implementing agencies must be monitored closely by a principal with a clear stake in the outcomes and who has political authority at the highest level; (8) The agencies carrying out promotion must maintain channels of communication with the private sector. (9) The objective should be not to minimize the chances that mistakes will occur, which would result in no self-discovery at all, but to minimize the costs of the mistakes when they do occur; and (10) Promotion activities need to have the capacity to renew themselves, so that the cycle of discovery becomes an ongoing one (Rodrik 2007). In Section 4, these criteria are used as a benchmark to determine whether and to what extent South Korea's MPE policy has been successful.

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Economic statecraft in the whitelist dispute

The power implications of bilateral trade for the two neighbors

Since normalizing its diplomatic relations in 1965, South Korea has consistently faced a trade deficit with Japan. The scale of this deficit continued to grow in the 2000s, particularly after the financial crisis. From 2000 to 2019, Japan remained South Korea's largest trade deficit partner, excluding oil-producing Saudi Arabia.[19] The global economic crisis in 2008 further exacerbated this dependence, with the trade deficit reaching a record high of USD 36.1 billion in 2010.[20] While there has been a recent reduction in the trade deficit with Japan, the imbalance persists.

From the perspective of the overall balance of trade, the trade deficit itself is not a big problem. As long as there is a surplus or balance at the multilateral level, a bilateral deficit is considered sustainable. Deficits resulting from imports of intermediate capital goods, such as parts and materials, can be offset by exporting intermediate goods or finished products to third countries within a global production network (GPN).

Both Japan, which has a comparative advantage in MPE sectors, and South Korea, which has a comparative advantage in the production of intermediate and final goods, have benefited from their bilateral trade. In 2010, for instance, South Korea's massive surplus in trade with China, Hong Kong, and the U.S. resulted in a total trade surplus of USD 41.2 billion, surpassing the deficit with Japan.

A noteworthy example is the memory chip industry, South Korea's largest surplus item, which began to flourish by importing MPE products from Japan, manufacturing finished goods, and exporting them globally within a GPN system. However, trade dependence and the resulting distribution of relative gains create unintended power dynamics.[21] When political and diplomatic relations between trading partners become strained, a less dependent country may be tempted to leverage the relationship to exert pressure on a more dependent country.[22]

Shortly after the G20 summit held in Osaka in June 2019, the Japanese government amended export control regulations *vis-à-vis* South Korea, making it more difficult to export three products crucial for the manufacturing of high-tech products like liquid crystals and semiconductors. Japan argued that the measure was not in retaliation for the South Korean Supreme Court ruling in 2018, but because "the relationship of trust between the two countries was significantly damaged." Japan also claimed that its measures did not violate any trade rules under the WTO, asserting that South Korea threatened Japanese security by illegally re-exporting materials from Japan to hostile countries.[23]

Japan's export restrictions dealt a severe blow to South Korea's industrial vulnerabilities.[24] Despite substantial growth in South Korea' MPE industry in the 2000s, its focus on mass-producing readily developed general products has resulted in a significant dependence on a handful of countries, especially Japan, for the supply of essential MPE products to advanced industries such as semiconductors and displays. Japan held a dominant share of 70–90% in the global market for the three core items subject to export restrictions. As the trade dispute unfolded in the summer of 2019, the Bank of Korea anticipated adverse effects on the South Korean economy should Japan's export restrictions continue. In contrast to big *chaebol* companies equipped with substantial inventories and diversified import sources, some small and medium-sized enterprises found themselves in a state of panic, struggling to navigate the abrupt export restrictions and find alternatives to Japanese products.[25]

[19]From 2011 to 2014, Saudi Arabia ranked first and Japan ranked second.

[20]https://unipass.customs.go.kr/ets/index.do

[21]Goodman, VerWey, and Kim (2019).

[22]In addition to Japan's export restrictions, China's ban on sending tourists to South Korea, enacted after South Korea allowed the deployment of Terminal High Altitude Area Defense (THAAD) batteries by the United States Forces Korea (USFK) within its territory, followed the same logic of trade-security nexus.

[23]Kirk (2019).

[24]National White Paper Compilation Committee (2022: 44–47).

[25]In the realm of ultra-high-purity hydrofluoric acid, a crucial component for extreme ultraviolet (EUV) processes in semiconductor manufacturing, Japan controlled 70% of the worldwide market. Due to the superior quality and affordability of Japanese products, a considerable number of South Korean semiconductor companies imported this product from Japan. Photoresist, a material used in semiconductor lithography processes, varied depending on the light source used in semiconductor

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The legal dispute behind the scenes

Following unsuccessful consultations with Japan requested in September 2019, the South Korean government filed a complaint to the WTO DSB, which established a panel in June 2020. Seoul contended that Tokyo's measures violated several WTO obligations, including GATT Article 1 (General Most-Favored-Nation Treatment), Article 8 (Fees and Formalities Connected with Importation and Exportation), Article 11 (General Elimination of Quantity Restrictions), Article 13 (Non-discriminatory Administration of Quantitative Restrictions), and Article 23 (Nullification or Impairment), along with relevant provisions of the Trade Facilitation Agreement, Trade-Related Investment Measures Agreement, Trade-Related Aspects of Intellectual Property Rights Agreement, and General Agreement on Trade in Services.

From an economic statecraft point of view, the crucial issue of the linkage between trade and security remains ambiguous and lax in its rules under the WTO system. Article 21 of the GATT provides one of the few primary legal foundations. Generally interpreted as allowing trade-restrictive or discriminatory measures on the grounds of national security, concerns were raised about the potential abuse of the term "essential security interests" from the outset.[26] A drafter of the GATT expressed apprehension that a Member's essential security interests "would permit anything under the sun" and stressed the need for balance.[27]

The most recent legal case, DS512: Russia—Measures Concerning Traffic in in Transit, had its panel report adopted in April 2019.[28] Initiated in September 2016 when Ukraine requested consultations with the Russian Federation, the case involved alleged multiple restrictions on traffic in transit from Ukraine through Russia to third countries like Kazakhstan and Kyrgyzstan.

In a ruling issued in 2019, the WTO panel determined that all WTO members, including Russia, can impose trade restrictions on trade issues with "essential security interests," provided such restrictions are made in "good faith." The panel also concluded that Russia, in its relations with Ukraine, was in a situation equivalent to the "hard core of war or armed conflict," as in the 2014 Crimean War, allowing it to ban Ukrainian cargo from transiting through its territory in accordance with Article 21.

The key question revolves around the interpretation of "core security interests" rather than its application. The panel defines this as "those interests relating to the quintessential functions of the state," with judgment left to "the particular situation and perceptions of the state," which "can be expected to vary with changing circumstances." The crux lies in how each member perceives its own core security interests.[29]

Unlike the Russia-Ukraine case, it appeared challenging for Japan to prove that export control measures were necessary for national security when the risk of armed conflict between South Korea and Japan is low.[30] However, given the WTO's acknowledgement of the "self-judging nature" concerning

production. In 2019, the prevalent light sources in South Korea were KrF excimer lasers (wavelength 248nm) and ArF excimer lasers (wavelength 193nm). However, to enhance performance and increase integration, the industry needed to adopt the next-generation lithography process using extreme EUV with a wavelength of 13.5nm. If export restrictions were imposed on photoresist critical for EUV, it could impact the timeline for the mass production of next-generation DRAM by South Korean foundries. Finally, fluorinated polyimides, crucial for the production of flexible displays, were entirely imported to South Korea from Japan's Sumitomo in 2019 (National White Paper Compilation Committee 2022: 46).

[26]WTO (2012).

[27]He said: "We have got to have some exceptions. We cannot make it too tight, because we cannot prohibit measures which are needed purely for security reasons. On the other hand, we cannot make it so broad that, under the guise of security, countries will put on measures which really have a commercial purpose" (WTO 2012: 600).

[28]Over the past seven decades, many Contracting Parties, including the European Community, the U.K., Canada, Australia, and the U.S., have invoked Article 21 as justification for their actions—primarily trade restrictions against certain countries. But the DSB had never been involved in reviewing measures and making decisions related to this clause until the Russia-Ukraine case.

[29]The question of whether and to what extent the GATT members can take any measures based on national security reasons under Article 21 has been repeatedly discussed in the GATT, only to regress to the point of where things stand today: "Every country must be the judge in the last resort on questions relating to its own security. On the other hand, every contracting party should be cautious not to take any step which might have the effect of undermining the General Agreement" (WTO 2012: 600–601).

[30]Shiojiri (2019).

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the assessment of core security interests in the Russia-Ukraine case, the possibility of Japan's claim being accepted could not be entirely excluded.[31]

The legal battle over the application and interpretation of Article 21 was poised to center on two related issues: (1) whether South Korea had imported strategic items from Japan and re-exported them to other hostile countries and (2) whether the relationship of trust between South Korea and Japan had thus been significantly damaged to the extent that it threatened Japan's essential security interests. However, the case abruptly concluded as South Korea withdrew its complaint against Japan from the WTO DSB in March 2023, leaving numerous legal and normative questions unanswered and the depths of security-trade nexus unexplored.

The economic statecraft tango that takes two

The Japanese trade-restrictive measure sent a series of shockwaves to South Korea, which heavily relied on Japan for a significant portion of MPE imports required for semiconductor and LCD manufacturing.[32] This measure could act as a headwind for Japanese exporters as well. In the worst case for Japan, if South Korean semiconductor companies achieve self-sufficiency or diversify their business partners, Japanese companies could lose their biggest customers, such as Samsung Electronics and SK Hynix. Why did the Japanese government make such a move nevertheless?

Certainly, it was not the first high-profile trade dispute between the two neighbors. In the early 2000s, there was a countervailing duties dispute over Hynix Semiconductor, and in the 2010s, there was a dispute over Fukushima seafood products. Both disputes involved fierce legal and diplomatic battles that reached the WTO DSB but were not overly politicized in South Korea or Japan. They were waged and managed at the administrative levels. However, the whitelist dispute escalated into a significant controversy not only in South Korea but also in Japan. This case became politically charged because security and historical issues were intertwined in all directions.[33]

Frustrated with the rapid escalation of South Korean sentiments against Japan and the potential seizure and sale of Japanese corporate assets to compensate South Korean wartime forced workers, the Japanese government attempted to link trade to security (and wartime history).[34] Japan clearly recognized that South Korea's trade dependence on Japan was high, especially for MPE imports. As of 2019, the share of MPE products in South Korea's imports from Japan was 68%, while the shares from China and the U.S. were 53% and 40%, respectively.[35]

It was likely that Japanese measures would harm its own companies exporting products to South Korea. From the welfare economic standpoint, Japanese measures were irrational. Inflicting damage on foreign companies, even at the expense of domestic companies, suggests that there were political

[31]To recapitulate, Japan regarded the essential materials and parts subject to strengthened export controls as strategic items. It claimed this measure was intended to control the trade of war materials and was a legitimate step taken to maintain international peace and security.

[32]Japanese measures to exclude South Korea from the whitelist, South Korea's boycott of Japanese products, and anti-Japanese protests further strained their bilateral relations. Many South Korean citizens participated in boycotting Japanese retailers such as Uniqlo and ABC Mart. Beyond the general public's boycott of Japanese products and tourism to Japan, some politicians called for a reconsideration of the extension of the General Security of Military Information Agreement (GSOMIA) signed in 2016. Immediately after the Shinzo Abe administration officially excluded South Korea from the whitelist, the Moon Jae-in administration declared the termination of GSOMIA in August 2019. Within a year, the South Korean Supreme Court's ruling evolved into a security issue, negatively impacting triangular security cooperation among South Korea, the U.S. and Japan. The diplomatic spat over the GSOMIA was resolved in March 2023 when the Yoon administration withdrew its notice to scrap the agreement with Japan (Amano and Mizota 2023).

[33]Koo (2021a: 58–60).

[34]When the South Korean Supreme Court ruled on the seizure of assets belonging to Nippon Steel and Mitsubishi Heavy Industries in South Korea, the Japanese government could have potentially resolved the issue through the Investor-State Dispute System (ISDS), even if it was more costly and time-consuming. Opting for this path could have been preferable to having the government take a prominent role and engage in an all-out conflict against the South Korean government. However, the Japanese government's decision not to pursue this avenue suggests that political considerations played a dominant role on the Japanese side as well.

[35]Kim (2021).

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benefits that might outweigh the economic damage. It is difficult to measure the extent to which Japan has gained in this regard. However, the fact that Tokyo lifted trade sanctions against South Korea the moment Seoul showed a friendly gesture regarding the forced labor issue indicates that Japan also experienced considerable economic losses. Table 1 below summarizes the chronological sequence of actions and reactions between Japan and South Korea.

Evaluating South Korea's core MPE localization policy

Ideologically driven policy goals and tools

In response to the Japan's retaliatory measure, the Moon government promptly initiated a localization policy for core MPE products, seeking to mitigate the adverse impacts of Japanese regulation. However, President Moon's ambitious policy encountered challenges from the outset, as government incentives primarily supported "old" activities with the hope that they would spawn "new" areas of comparative advantage.[36]

The government measures were specifically designed to strengthen the competitiveness of MPE industries for 100 selected items, aiming for a stable supply of 20 items within one year and 80 items within five years. These 100 items were chosen from six major sectors, including semiconductors, displays, automobiles, electrical and electronics, machinery/metals, and basic chemistry. In late 2020, the Special Law on Materials, Parts, and Equipment was enacted, committing to an investment of approximately USD 10 billion in MPE sectors by 2024. In accordance with this special law, the Special Account for MPE and the Committee for Reinforcing the Competitiveness of MPE were also established.[37]

Following the establishment of the Special Account, the budget for the MPE support projects from 2020 to 2022 amounted to KRW 7.1 trillion (about USD 5.4 billion), allocated among the Ministry of Trade, Industry, and Energy (MOTIE), the Ministry of Science and ICT (MSIT), the Ministry of SMEs and Startups (MSS), and the Financial Services Commission (FSC). Among them, the MOTIE held the highest proportion with KRW 4.5 trillion (See Table 2). As shown in Table 3, the budget for MPE support projects was categorized into "Technology Development" for MPE technology development, "Infrastructure Building" for enhancing trust lines and strengthening upward cooperation bases, and "Investment and Loans" for financial support. Among these, the "Technology Development" category consistently recorded the highest budget amount and proportion each period, occupying the majority of the overall budget for MPE support projects.[38]

However, the MPE localization policy lacked clear benchmarks and criteria for success and failure, with no built-in sunset clause, tying up scarce resources in non-performing activities for an extended period. Unsurprisingly, the number of "zombie" MPE companies, whose profits were lower than their financing costs, doubled from 2019 to 2021.[39] Generous government subsidies have been identified as contributing to moral hazards, trapping these firms in precarious situations. The absence of project audits and an ambiguous selection process fostered administrative and managerial loopholes, incubating rent-seeking behaviors in marginal enterprises.

While it is crucial to nurture industries related to national security or secure strategically important materials for emergencies, the theoretical basis for arguing that the state should increase domestic

[36]South Korean policymakers, engaging in a tech-war with Japan, also failed to grasp the complexities of industrial policy. They overlooked the economic costs associated with such interventions. It is widely acknowledged that excessive investment in industries, where there is both a comparative and absolute disadvantage compared to Japan, leads to inevitable efficiency losses due to the misallocation of resources. These deadweight losses result from over-investing in inefficient domestic industries and under-consuming more efficient foreign products. Ultimately, these economic costs can underminde the comparative and competitive advantages of exporting industries, giving rise to negative externalities.

[37]Ministry of Trade, Industry and Energy (2020a); Kim (2021).

[38]National White Paper Compilation Committee (2022: 154–155).

[39]Sung (2021).

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Table 1: Chronological overview of the whitelist dispute

Japan	South Korea
	• October 30, 2018 Supreme Court ruling on forced labor during wartime
• July 4, 2019 Adopting individual permit control for three core items	
• July 12, 2019 Conducting a senior-level meeting between the Ministry of Trade, Industry, and Energy and the Ministry of Economy, Trade, and Industry in Tokyo	
	• July 22, 2019 • Establishing a Public-Private "MPE Supply-Demand Response Support Center" • August 2, 2019 • Securing a supplementary budget of KRW 2.7 trillion (about USD 2 billion) for MPE products • September 10, 2019 • Filing a complaint with the WTO regarding Japan's export restrictions
• September 11 & November 19, 2019 Initiating bilateral discussions after filing a complaint with the WTO.	
	• October 11, 2019 Establishing the Committee for Reinforcing the Competitiveness of MPE
• November 22, 2019 Both South Korea and Japan agreed to temporarily suspend the effect of the GSOMIA termination notice and WTO procedures, and to proceed with export control policy dialogue.	
	• December 31, 2019 • Establishing the MPE Special Account • March 18, 2020 • The amendment of the Foreign Trade Act to clarify the legal basis for regulating traditional weapons under a catch-all provision • April 1, 2020 • Implementing the Special Law to Strengthen the Competitiveness of the MPE Industry • May 6, 2020 • Establishing the dedicated trade-security organization, expanding from the previous division level (Trade Security Division) to the bureau level Trade-Security Policy Bureau • June 2, 2020 • Announcing the resumption of WTO dispute settlement procedures due to Japan's alleged lack of willingness to address the issues, despite South Korea's efforts to resolve all concerns raised by Japan • March 23, 2023 • Withdrawing the WTO complaint against Japan
• June 27, 2023 Lifting previous export restrictions against South Korea	

Source: Adapted from National White Paper Compilation Committee (2022).

production of strategic items when imports are restricted is weak. Even if one accepts the logic of localization of core MPE products for national security, the possibility of political abuse is high due to the ambiguous logic of trade-security nexus. Determining which items are critical to national security is challenging, especially in an era dominated by cyberwarfare, where no industry is unrelated to national

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Table 2: Budget allocations for the MPE special account by ministries (Million KRW, %)

		MOTIE	MSIT	MSS	FSC	Total
2020	Budget	1,284,267	331,587	258,630	200,000	2,074,484
	Share	61.9	16.0	12.5	9.6	100
2021	Budget	1,561,545	417,304	335,275	240,000	2,554,124
	Share	61.1	16.4	13.1	9.4	100
2022	Budget	1,683,254	445,898	353,833	–	2,482,985
	Share	67.8	18.0	14.2	–	100
Total	Budget	4,529,066	1,194,789	947,738	440,000	7,111,593
	Share	63.7	16.8	13.3	6.2	100

Source: National White Paper Compilation Committee (2022: 155).

Table 3: MPE special account budgets by categories (Million KRW, %)

		Technology Development	Infrastructure Building	Investment and Loans	Operational Support	Total
2020	Budget	1,330,806	402,168	340,000	1,510	2,074,484
	Share	64.1	19.4	16.4	0.1	100.0
2021	Budget	1,734,851	437,838	380,000	1,435	2,554,124
	Share	67.9	17.1	14.9	0.1	100.0
2022	Budget	1,928,024	413,932	140,000	1,029	2,482,985
	Share	77.7	16.7	5.6	0.0	100.0
Total	Budget	4,993,681	1,253,938	860,000	3,974	7,111,593
	Share	70.2	17.6	12.1	0.1	100

Source: National White Paper Compilation Committee (2022: 156).

security in emergencies. National security is better served by overall national economic capability rather than the growth of specific industries like the defense or strategic industry.[40,41]

The government's program targeted specific sectors rather than activities. Only a handful of subsidized firms demonstrated spillovers and demonstration effects, while others generated a significant diversion effect.[42] Concerns about weaponizing economic interdependence are valid, as

[40]Koo (2021a, 2021b).

[41]The Moon government's identification of 100 key strategic items, coupled with subsequent R&D investment and tax support measures, have not been without results. The policy has also provided a chance to establish a long-term technological ecosystem within the domestic high-tech industry (National White Paper Compilation Committee 2022). However, the performance of policy beneficiaries remains inconspicuous. While the rationale for localization for national security purposes appears robust at first glance, it is fraught with economic loopholes and is highly susceptible to political abuse.

[42]The government white paper proudly highlights several successful cases. For instance, SKC has secured the technology for manufacturing transparent polyimide and its core raw materials, completing the localization of materials for the display panel value chain. Jusung Engineering Co., Ltd., after joint R&D with client companies, has achieved a competitive advantage compared to foreign equipment, breaking away from dependence on Japan. They are gradually expanding the verification for next-generation and beyond DRAM device technologies. Eugene Technology Co., Ltd. has localized key components of low-pressure chemical vapor deposition (LPCVD) equipment for silicon nitride, reducing the price ratio occupied by Japanese parts from 27% to 23% (National White Paper Compilation Committee 2022: 24).

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South Korea's linkages with China and Japan have become sensitive and vulnerable.[43] Paradoxically, South Korea's effort to distance itself from Japan has increased its reliance on China for both imports and exports of MPE products.[44]

Despite these challenges, the Moon government took pride in its localization projects.[45] It asserted that within three years, South Korea had successfully stabilized the supply and demand of the three core products. With domestic production doubling, South Korea's reliance on high-purity hydrogen fluoride from Japan decreased by 30 percent. Additionally, the dependence on Japanese photoresist dropped from 100 percent to less than 50 percent due to the exploration of new suppliers in other countries. The imports of fluorinated polyimides from Japan effectively reached zero by developing alternative materials, such as ultra-thin glass.[46]

However, this assessment is misleading, if not mistaken. For instance, the dependence on Japan for photoresist decreased as South Korean firms identified alternative supply sources in Belgium. During this period, South Korea's imports from JSR's Belgium subsidiary increased more than tenfold. Established in 1957, JSR Corporation is a Japan-based company. Meanwhile, some South Korean firms achieved success in localizing the production of high-purity hydrogen fluoride. However, they remain overshadowed by Japan, still depending on joint ventures with Japanese chemical companies.[47]

The Japanese share of total South Korean MPE imports did decrease from 2019 to 2021. Nevertheless, the value of imported goods from Japan was USD 32.9 billion in 2019 and increased to USD 39.3 billion in 2021, primarily due to the thriving semiconductor industry (See Table 4). South Korea's dependence on Japan for the three key semiconductor materials remains significant. If the domestic production or the imports from third countries—where Japanese companies invested their capital and technology—are considered, South Korea's dependence on Japanese MPE products could be much greater than formal statistics indicates. Japanese subsidiaries have also evaded trade restrictions by expanding investments in South Korea or forming joint ventures with Korean companies to import MPE products to South Korea.

Until recently, many South Korean media outlets remained silent about the opportunity cost, possibly due to the prevailing anti-Japan sentiments. However, considering the billions of dollars budget invested thus far, it not clear whether the policy has been cost-effective. The competition to increase the localization rate may be politically reasonable but economically unsustainable, given finite government budgets and companies' time and efforts. Technology localization always carries uncertainty, and even if achievements are made, long-term competitiveness may be compromised in other areas due to resource diversion. There is no evidence to suggest that total welfare has increased compared to before the summer of 2019, when South Korea and Japan mutually benefited in high-tech GPN based on the principle of international division of labor. Consequently, it can be concluded that none of the five "policy goals and tools" criteria suggested by the NIP literature have been met (See Figure 1).

Competent but politically captured implementing agency

At the initiation of MPE localization policy, few in South Korea questioned the bureaucratic legitimacy of the MOTIE as it emerged as a principal implementing and coordinating agency among various

[43]Jeong et al. (2021); Jang (2022).

[44]In a broader context, South Korea's MPE industries have experienced significant growth within GPN, especially in electronic components, chemicals and chemical products, and primary metal products. Notably, the three Northeast Asian countries—South Korea, Japan, and China—have become closely interconnected with each other, both positively and negatively. Japan retains its status as a traditional MPE powerhouse, while the rise of China is equally noteworthy. South Korea's overall trade balance in MPE sectors has improved in recent years, partly thanks to government efforts and corporate interest. However, its dependence on Japan for imports and China for exports remains substantial (Kim and Han 2021: 215).

[45]National White Paper Compilation Committee (2022: 19).

[46]President Moon Jae-in attended a government-organized MPE performance review conference in July 2021 and declared: "We have achieved self-reliance in the face of Japanese surprise attack" (Im 2022).

[47]Experts note that Samsung Electronics, without Japanese equipment, could face significant challenges. Achieving full technological independence from Japan is currently deemed impossible (Im 2022).

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Table 4: South Korea's imports of materials, parts, and equipment by country (Million USD, %)

	2019		2021	
	Value	Share	Value	Share
World	192,587	100	248,113	100
China	55,356	28.7	70,158	28.3
Japan	32,875	17.1	39,264	15.9
U.S.	23,274	12.1	27,413	11.0
Taiwan	13,019	6.8	20,338	8.2
Germany	9,558	5.0	11,054	4.5

Source: National White Paper Compilation Committee (2022: 20).

government and semi-government entities. The MOTIE appeared motivated and well-informed about its objectives when it requesting supplementary budget from the National Assembly, stating, "For the localization of materials, parts, and equipment highly dependent on foreign countries, we will actively promote projects in related fields such as core technology development, commercialization, and demonstration to reduce dependence on Japan and increase self-reliance for core parts".[48]

The MOTIE promptly responded to the trend of trade securitization. In May 2020, it established a new division-level office, the Trade-Security Policy Bureau, tasked with planning and coordinating various security-related trade matters, including export permits for strategic materials, prevention of technology leakage, and other preemptive measures concerning sensitive technologies.[49] With its demonstrated competence, there was little doubt that the MOTIE was the appropriate authority to implement the MPE localization policy for both security and economic purposes.[50]

However, amidst escalating diplomatic tensions with Japan, the MOTIE was granted limited administrative, let alone political, authority and policy autonomy essential for effective industrial policy. Under President Moon, the Presidential Office (then Blue House: BH) assumed a leading role from the outset, relegating the MOTIE to a subordinate position. Ironically, the implementing agency was closely monitored by President Moon, who had a vested interest in anti-Japanese sentiments. The Presidential Office promptly established the "Japan's Export Restrictions Response Strategy Taskforce," holding numerous meetings. Under the leadership of the economic advisor to the president, a dedicated BH Secretariat Support Team, encompassing the entire secretariat, was formed to ensure a consistent and systematic response to the situation of Japan's export restrictions. The response involved meticulous monitoring of trends in companies directly affected, devising support measures, and addressing various aspects such as negotiations with Japan and potential risks to the foreign exchange and financial markets due to export restrictions.[51] Under excessive top-down demand for political accountability, the MOTIE had little room to navigate domestic and international politics.[52]

Amid the ongoing uncertainty caused by Japan's export restrictions, the MOTIE took measures to provide accurate information to businesses and promptly address challenges. On July 22, 2019, The MOTIE established a collaborative system with nine government ministries, including the Ministry of Economy and Finance, the Ministry of SMEs and Startups, the Ministry of Environment, and the

[48]Ministry of Trade, Industry and Energy (2020a).
[49]Ministry of Trade, Industry and Energy (2020b).
[50]Kim (2021: 99–100).
[51]National White Paper Compilation Committee (2022: 49).
[52]In early 2019, the MOTIE observed that Japan was gearing up for specific measures in response to South Korea's Supreme Court ruling, but overlooked the potential for a trade conflict. Several former and current high-ranking MOTIE officials privately conveyed their frustration, revealing that they were prohibited from raising any Japan-related issues with the Blue House. This restriction was attributed to the prevailing strong anti-Japan sentiments at the onset of the whitelist dispute in the summer of 2019 (Interviews conducted by the author in 2019 and 2023).

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Customs Service. It also involved public organizations such as the Strategic Materials Management Office, the Korea Trade-Investment Promotion Agency, the Korea International Trade Association, as well as local governments and industry-specific associations and organizations. With the establishment of the MPE Supply-Demand Response Support Center in July 2019, inquiries began pouring in immediately.[53]

However, the localization of MPE products does not occur in a political and economic vacuum. Domestically, interest group politics is ever-present. The list of strategically important products can be extensive, encompassing hundreds, if not thousands, of goods and items. Government financing of the localization of specific materials, parts, and/or equipment often leads to other fields requesting government support. MOTIE's effort to maintain communication channels with the private sector worsened the scenario as many, if not all, MPE-related firms sought to capitalize on the situation. As it expanded to meet future industrial demands in developing the MPE sectors, the MOTIE announced a five-year plan to increase the number of core strategic technologies from 100 to 150 in relevant industries. In addition to the existing list of core technologies, including semiconductors, displays, and electrical and electronic products, the target items diversified to include bio and pharmaceutical materials and future-generation vehicles.[54]

In theory, an implementing agency should be cautious about causing government failure by doing what it should not do (Type I error). It is also problematic if the government fails to act in areas where market failure occurs (Type II error). Discovering a country's productive potential inevitably involves both types of mistakes and errors. As Rodrik (2022) emphasizes, there is no one-size-fits-all strategy, and that is why the implementing agency should be open-minded in learning from mistakes and adapting its strategies based on feedback, evaluation, and evidence.

From this perspective, MOTIE's performance in terms of policy learning and adaptation has been limited. There is no clear evidence that the cycle of discovery has become an ongoing process with regards to MPE localization and promotion programs. The MOTIE has not demonstrated the capacity to reinvent and refashion itself. Unsurprisingly, the incumbent Yoon government has decided to cut the special budget for MPE products by 5.7% for the fiscal year 2023. The MPE budget for the Ministry of SMEs and Startups and the Ministry of Science and ICT has the largest cut by 38%. The political and administrative status of the Committee for Reinforcing the Competitiveness of MPE has been downgraded as well, moving from being affiliated with the Presidential Office to being under the Prime Minister's Office.[55] While these new developments do not necessarily indicate *de jure* policy failures, the abrupt termination of policy support represents *de facto* withdrawal of political backing for the MPE localization policy. Consequently, it can be concluded that none of the five criteria suggested by the NIP literature for "policy agencies" have been met (See Figure 1).

Conclusion

At the heart of the emerging paradigm of economic statecraft lies the notion that interventionist and protectionist policies represent a means of addressing the challenges posed by principles of free trade and open markets. Within a global context of a growing political and economic inclination towards weaponizing and securitizing economic interdependence by leveraging global supply networks for strategic advantage, this study examined the whitelist dispute between South Korea and Japan, spanning from the summer of 2019 to the summer of 2023. The roots of this four-year dispute can be traced back to South Korea's Supreme Court ruling on wartime forced workers in 2018, with Japan's subsequent trade restrictions exacerbating the situation.

[53]These queries encompassed strategic material classification for imported items from Japan, the possibility of transitioning to individual permits, and various other aspects. The center handled an average of over 200 consultations daily, addressing issues ranging from securing supplies affected by export restrictions and providing financial support for facility investments to exploring alternative sources and handling challenges related to R&D (National White Paper Compilation Committee 2022: 57–58).

[54]Lee (2020); *Korea Times* (2022); Ministry of Trade, Industry, and Energy (2022).

[55]Lee (2022).

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The immediate consequence of the trade dispute sparked a legal debate, where Japan argued that its "essential security interests" had been violated by South Korea's lax export control regime, allegedly allowing strategic materials from Japan to be illegally re-exported to hostile nations such as North Korea and Iran. While Japan sought to connect its "essential security interests" with core trade issues, this argument might have found support under GATT Article 21 unless South Korea withdrew its complaint before the WTO DSB panel considered the case. Unintentionally, Article 21 acted as a pressure relief valve, allowing the two neighbors to release bilateral trade and security-related tensions.

Simultaneously, the debate on the application and interpretation of "essential security interests" provision motivated the interventionist South Korean government to adopt an ambitious MPE localization policy for national security reasons. The Moon Jae-in government aimed to boost domestic production of core MPEs, predominantly imported from Japan. Initially, the focus was on achieving technological self-sufficiency for 100 items across six major sectors. Subsequently, the list expanded to 150 within so-called relevant industries with billions of dollars pledged and distributed from 2019 to 2021.

This study evaluated the effectiveness of the MPE localization policy from a new industrial policy perspective. While there have been some visible and notable outcomes, the track record of the MPE policy falls short of fully meeting the ten criteria proposed by the new industrial policy literature. Notably, the costs associated with "zombie" MPE firms lack both economic and social justification. These firms may present economic and social challenges for the South Korean government and taxpayers, functioning as heavily subsidized entities offering additional security. This potentially enables economic statecraft against Japan without concerns about retaliatory measures from Japan. However, this policy reveals the risk of moral hazards inherent in selecting "winners and losers." Total securitization, where everything is determined to be critical for national security and thus eligible for government support, is indeed a danger.

These observations and findings underscore the need for caution among policymakers who might be tempted to link security with trade or implement industrial policies surreptitiously, without a sound economic statecraft framework, in response to adversarial moves by a trading partner. This study offers a useful prism for understanding conflicts of this nature and serves as a lever to address broader theoretical and normative issues concerning the future of economic statecraft idea. Today's governments invariably engage in economic statecraft, particularly in security-driven industrial policies. However, the rationale behind state intervention, including the localization of the production of strategically important products and the implicit or explicit disregard for rules-based trading systems, remains shaky at best. As noted by Dani Rodrik, it is imperative that they act deliberately and self-consciously within an overall strategic framework.

References

Aggarwal, Vinod K., and Andrew Reddie. 2020. "New Economic Statecraft: Industrial Policy in an Era of Strategic Competition." *Issues & Studies* 56 (2): 2040006-1–2-4006-29.

Aggarwal, Vinod K., and Andrew Reddie. 2021. "Economic Statecraft in the 21st Century: Implications for the Future of the Global Trade Regime." *World Trade Review* 20: 137–151.

Aggarwal, Vinod K., and Andrew Reddie. 2022. "The New Reality of Economic Statecraft." *Global Asia* 17 (4): 1–7.

Aggarwal, Vinod K., and Kristi Govella, eds. 2013. *Linking Trade and Security: Evolving Institutions and Strategies in Asia, Europe, and the United States*, New York: Springer.

Amano, Yusuke, and Hiroshi Mizota. 2023. "Japan, S. Korea Defense Chiefs Put Past Sour Relations to Bed." *The Japan News*, June 5. Accessed December 21, 2023. https://japannews.yomiuri.co.jp/politics/defense-security/20230605-114243/.

Borowie, Steven. 2023. "Japan Lifts Final South Korea Trade Restriction." *Nikkei Asia*, June 27. Accessed December 21, 2023. https://asia.nikkei.com/Politics/Japan-South-Korea-ties/Japan-lifts-final-South-Korea-trade-restriction.

Choung, Eunji, and Min Gyo Koo. 2023. "China's Dream for Chip Supremacy: Seeing through the Lens of Panel Display-related IC Patents." *Business and Politics* 25 (2): 117–132.

Goodman, Samuel, John VerWey, and Dan Kim. 2019. "The South Korea-Japan Trade Dispute in Context: Semiconductor Manufacturing, Chemicals, and Concentrated Supply Chains." U.S. International Trade Commission Office of Industries Working Paper ID-062. Accessed December 21, 2023. http://dx.doi.org/10.2139/ssrn.3470271.

Hirschman, Albert O. 1980 [1945]. *National Power and the Structure of Foreign Trade*, Berkeley: The University of California Press.

https://doi.org/10.1017/bap.2024.3 Published online by Cambridge University Press

Im, Kyung-up. 2022. "Two Years after the Declaration of Independence, the Dependence on Japan Has Become More Severe." *Chosun Daily*, February 5. Accessed December 21, 2023. https://www.chosun.com/economy/industry-company/2022/02/05/SB6TA2TS4ZFY3AUPCNKM4O7ATI/ (in Korean).

Jang, Hyung-tae. 2022. "Dependence on China Rose While Attempting to Avoid Made in Japan Products . . . Urgent Need to Diversify Supply Chains." *Chosun Daily*, February 5. Accessed December 21, 2023. https://www.chosun.com/economy/industry-company/2022/02/05/VY4DELSIOFE6JMBYVOB27U76ME/ (in Korean).

Japan Times. 2023. "Japan and South Korea Eye Package to Resolve Wartime Labor Row and Other Issues." March 5. Accessed December 21, 2023. https://www.japantimes.co.jp/news/2023/03/05/national/politics-diplomacy/south-korea-japan-package-agreement//.

Jeong, Hyung-Gon, Hong Bae Lee, Hyong-Kun Lee, and Minsuk Park. 2021. *A Study on GVC Linkage of Materials, Parts, and Equipment Industries in China, Japan and Korea*. KIEP Research Report 20–34 (in Korean).

Kim, Min-Jae, and Neung-Ho Han. 2021. "A Study on the Response of Korean Materials and Parts Industry to the Reorganization of GVC." *Korea International Commerce Review* 36 (1): 211–229 (in Korean).

Kim, Tong-hyung. 2023. "Yoon, Kishida Vow Better Seoul-Tokyo Ties Following Summit." *AP News*, May 8. Accessed December 21, 2023. https://apnews.com/article/south-korea-japan-yoon-kishida-2451347b173896fd04ea633d7fe3986e.

Kim, Yang-hee. 2021. "A Study on South Korea's 'Decoupling from Japan' Response to Japan's Reinforcement of Export Regulations." *Seoul Journal of Japanese Studies* 7 (1): 91–118.

Kirk, Donald. 2019. "Japan Ejects South Korea From Export 'White List' As Trade Relations Fray." *Forbes*, August 2. Accessed December 21, 2023. https://www.forbes.com/sites/donaldkirk/2019/08/02/japan-ejects-south-korea-from-export-white-list-as-trade-relations-fray/.

Koo, Min Gyo. 2011. "U.S. Approaches to the Trade-Security Nexus in East Asia: From Securitization to Resecuritization." *Asian Perspective* 35 (1): 37–57.

Koo, Min Gyo. 2021a. *The Political Economy and Law of International Trade: Between Free Trade Ideals and Mercantilist Bias*. 2nd Edition, Seoul: Parkyoungsa (in Korean).

Koo, Min Gyo. 2021b. "The Trade-Security Nexus and South Korea-Japan Trade Dispute: The Application of GATT Article 21 Security Exceptions." *Korean Journal of Japanese Studies* 24: 212–237 (in Korean).

Korea Time. 2022. "Work Out Detailed Strategy to Boost Intermediate Goods Sectors." October 23. Accessed December 21, 2023. https://m.koreatimes.co.kr/pages/article.asp?newsIdx=338392&ssp=1.

Krugman, Paul R. 1987. "Is Free Trade Passé?" *The Journal of Economic Perspectives* 1 (2): 131–144.

Lee, Ho-jeong. 2020. "2.0 Strategy for 3 Key Materials to Cost Trillions of Won." *Korea JoongAng Daily*, July 9. Accessed December 21, 2023. https://koreajoongangdaily.joins.com/2020/07/09/business/economy/material-and-parts-MOTIE-Minister-Sung-Yunmo/20200709180200380.html?ssp=1&setlang=en-US&safesearch=moderate.

Lee, Ki-beom. 2022. "The Yoon Administration Decided to Cut the MPE Budget." *Nocut News*, September 9. Accessed December 21, 2023. https://www.nocutnews.co.kr/news/5815024 (in Korean).

Ministry of Trade, Industry, and Energy. 2020a. "Measures to Strengthen Competitiveness of Materials, Parts and Equipment Industries." *ROK Policy Briefing*, March 16. Accessed December 21, 2023. https://www.korea.kr/special/policyCurationView.do?newsId=148866660 (in Korean).

Ministry of Trade, Industry, and Energy. 2020b. "Establishment of Trade-Security Policy Office to Strengthen Trade-Security Functions." *ROK Policy Briefing*, April 28. Accessed December 21, 2023. https://www.korea.kr/news/pressReleaseView.do?newsId=156387705 (in Korean).

Ministry of Trade, Industry, and Energy. 2022. "Selecting the Best MPE Companies for Year 3 . . . 7 Areas Including Semiconductor and Display." *ROK Policy Briefing*, October 24. Accessed December 21, 2023. https://www.korea.kr/news/policyNewsView.do?newsId=148907350 (in Korean).

Motohiro, Tsuchiya. 2019. "America, China, and the Battle for Techno-Hegemony." April 16. Accessed December 21, 2023. https://www.nippon.com/en/in-depth/a06301/america-china-and-the-battle-for-techno-hegemony.html.

National White Paper Compilation Committee of South Korea. 2022. *Moon Jae-in Administration's State Affairs White Paper: Response to Japanese Export Restrictions and Enhancement of Materials, Parts, and Equipment Industry Competitiveness*, Seoul: The Korean Government (in Korean).

Rodrik, Dani. 2007. "Industrial Policies for the Twenty-First Century." *In One Economics, Many Recipes: Globalization, Institutions, and Economic Growth*, edited by Dani Rodrik, 99–152. Princeton, NJ: Princeton University Press.

Rodrik, Dani. 2017. "Rescuing Economics from Neoliberalism." *Boston Review*, November 6. Accessed December 21, 2023. https://www.bostonreview.net/articles/dani-rodrik-rescuing-economics-neoliberalism/.

Rodrik, Dani. 2021. "Why Does Globalization Fuel Populism? Economics, Culture, and the Rise of Right-Wing Populism." *Annual Review of Economics* 13: 133–170.

Rodrik, Dani. 2022. *An Industrial Policy for Good Jobs*. Washington, DC: The Brookings Institution.

Shiojiri, Kotaro. 2019. "Japan's Measures on Export Control to the Republic of Korea: From the Perspective of International Law." *Journal of East Asia and International Law* 12 (2): 337–352.

Siripurapu, Anshu, and Noah Berman. 2022. "Is Industrial Policy Making a Comeback?" *Foreign Affairs*, November 18. Accessed December 21, 2023. https://www.cfr.org/backgrounder/industrial-policy-making-comeback.

Sitaraman, Ganesh. 2019. "The Collapse of Neoliberalism." *The New Republic*, December 23. Accessed December 21, 2023. https://newrepublic.com/article/155970/collapse-neoliberalism.

https://doi.org/10.1017/bap.2024.3 Published online by Cambridge University Press

Solis, Mireya. 2020. "China, Japan and the Art of Economic Statecraft." Brookings Policy Brief: Global China Project. Accessed December 21, 2023. https://www.brookings.edu/wp-content/uploads/2020/02/FP_202002_china_japan_solis.pdf.

Sung, Sang-hoon. 2021. "The Number of Small and Medium-sized Zombie Companies Have Doubled in 4 Years . . . Relying Too Much on Government Subsidies." *Korea Economic Daily*, October 7. Accessed December 21, 2023. https://www.hankyung.com/politics/article/202110071575i (in Korean).

Walt, Stephen M. 2020. "The Realist's Guide to the Coronavirus Outbreak." *Foreign Policy*, March 9. Accessed on 21 December 2023. https://foreignpolicy.com/2020/03/09/coronavirus-economy-globalization-virus-icu-realism/.

World Trade Organization. 2012. "Article XXI: Security Exemptions." Accessed December 21, 2023. https://www.wto.org/english/res_e/booksp_e/gatt_ai_e/art21_e.pdf.

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