

# **The Impact of COVID-19 and the US-China Confrontation on East Asian Production Networks**

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International production networks (IPNs) in East Asia are facing two challenges, *i.e.*, COVID-19 and the US-China confrontation. COVID-19 has generated three kinds of shocks on IPNs: negative supply shocks, positive demand shocks, and negative demand shocks. IPNs have adequately managed these shocks thus far and have been strengthening the relative position of Factory Asia in the world. Nevertheless, the US-China confrontation and its consequences of weakening the rule-based trading regime have enhanced uncertainties in the operations of IPNs. The decoupling pressure may come from either the US or China for middle powers in-between, even with the US Biden Administration. This study posits that the construction of a mega-free trade agreement (FTA) network may partially reduce policy risks and help form a pro-trade middle-power coalition.

*Keywords:* COVID-19, the US-China trade war, international production networks, mega-FTAs, East Asia

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## I. Two Challenges on IPNs

East Asia, including both Northeast and Southeast Asia, has aggressively developed international production networks (IPNs) or the second unbundling in the past three decades and has achieved rapid economic growth and poverty alleviation (Ando and Kimura 2005, Baldwin 2016). This type of task-by-task international division of labor requires large differences in location advantages (*e.g.*, wage gaps) to save in production costs and lower the costs of service links to connect remotely located production blocks. This circumstance explains why only few developing countries in the world can participate in IPNs. Other than most of the East Asian countries, only some Eastern European countries and a few Latin American countries such as Mexico and Costa Rica are significant IPN participants. Particularly in East Asia, the fragmentation of production and the formation of industrial agglomeration have transpired, and the entirety of East Asia has developed into “Factory Asia.” Until the next generation’s international division of labor, *i.e.*, cross-border service outsourcing or the third unbundling, gains dominance, the second unbundling will continuously be a strength of East Asia.

However, East Asian IPNs are currently facing two challenges: COVID-19 and the US-China confrontation. COVID-19 started in China in late 2019 and quickly spread to the world in 2020. Global value chains (GVCs) (which include both IPNs and relatively slow trade in primary products, and materials) functioned as shock propagation channels. People initially overreacted to the initial shocks and blamed the disruption of GVCs. Some individuals claimed that the era of GVCs has ended and the concentration of production sites or “reshoring” (which means the return of production sites to the home country) had to be promoted. By contrast, others claimed that the wider spread of production sites would strengthen the robustness and resilience of GVCs.<sup>1</sup> At the end, neither the end of GVCs nor the further spread of GVCs occurred. GVCs, particularly the portion of IPNs, exhibited their robustness and resilience, and Factory Asia has essentially preserved its production system thus far. I believe that the complicated nature of COVID-19 shocks, which comprise

<sup>1</sup> Miroudot (2020) refers to the risk management literature and distinguishes between robustness and resilience. The former means that a supply chain is less likely to be interrupted in facing a shock, and the latter indicates that a supply chain can resume quickly even if it is once interrupted by a shock.

negative supply shocks, positive demand shocks, and negative demand shocks in different places and at different timings, caused the initial reaction of confusion.

The other challenge, which is also related to COVID-19 shocks, is the US-China confrontation. Although the confrontation is deeply rooted in the political and economic structure of both countries, explicit actions started as a “trade war” or “tariff war” in which the US imposed a series of tariffs on imports from China on the basis of Section 301 of the US 1974 Trade Act and China retaliated. The disputes were not limited to “trade” but escalated to wider issues such as a series of controversies against Huawei. The concept of “national security” was expanded by a strong bipartisan support in the US Congress, and the “decoupling” from China began. The US-China confrontation has been even aggravated since COVID-19 spread globally, and China's reactions against the US and other countries have also intensified. Then, we again observed a sort of over-reaction. Some claimed that too much business concentration in China is like putting all eggs in one basket and such a situation must be resolved immediately. However, in reality, many businesses still approve of the operations in China and stay. Of course, there is a trend of labor-intensive industries and some disadvantageous firms moving out of China, while some high-tech firms started moving out because of a clear threat of decoupling. What the private sector is eager to know is how far the decoupling would be expanded.

Although detailed statistical data remain unavailable at present, this study presents a tentative assessment on the two challenges faced by East Asian IPNs: COVID-19 and the US-China confrontation. The impact of digital transformation, a feature which is accelerated in developed and developing countries, is also briefly discussed in this research. Furthermore, this work claims that mega-FTAs (free trade agreements) may work at least partially to reduce uncertainties in the international trade order. The last section concludes the paper.

## **II. Multiple Shocks because of COVID-19**

At the very early stage of the pandemic, Baldwin (2020) indicated that COVID-19 generates both supply shocks and demand shocks. Health policy in the form of social distancing and lockdowns certainly slows down production and consumption simultaneously. However, the strictness and length of restrictions differ between production and consumption,

and the timings of those restrictions also vary across countries and regions. To understand the situation in East Asia in particular, we must investigate the nature of shocks more carefully. Three kinds of shocks were generated by COVID-19 pandemic: negative supply shocks, positive demand shocks, and negative demand shocks.

From the viewpoint of East Asian economies other than China, the first type of shock, negative supply shocks, came in February 2020 in the form of a supply disruption of intermediate goods and final goods imported from China. However, the drop of imports from China immediately resumed in March 2020. Subsequently, COVID-19 spread globally, and lockdowns and other measures influenced production activities here and there at different timings. Actually, those shocks on a production system tend to be short-lived relative to consumption slumps.

The second shock type, positive demand shocks, came first for medical and essential goods such as face masks, hand sanitizers and pharmaceuticals and sometimes even food. Many goods as such are traded goods, and some exporting countries imposed temporary bans on exporting these goods so as to prioritize domestic consumption, a circumstance which generated a panic in importing countries and some mistrust in international trade.<sup>2</sup> Fortunately, the situation returned to normal quickly despite the promotion of some reshoring for those goods.

Another type of positive demand shock was caused by specific demand intensified by COVID-19. “Teleworking” enhances the demand for personal computers and related communication equipment, and “staying home” generates demand for various home-related, do-it-yourself goods. The rebound of East Asian exports to North America and Europe was led by those positive demand shocks and partially helped the bottom-up growth of negatively growing economies.<sup>3</sup>

The last type entails negative demand shocks. The slowdown of the economies makes the conduct of various businesses difficult, generates layoffs, possibly worsens the performance of the financial sector, and causes risks on asset markets. The pandemic situation in North America and Europe particularly seems dire, and vaccines do not seem

<sup>2</sup> See Evenett (2020).

<sup>3</sup> We are actually experiencing computer chip shortages due to positive demand shocks (Financial Times 2021). Moreover empty containers stay in North America due to the current asymmetric trade pattern between North America and East Asia (Nikkei Asia 2020).

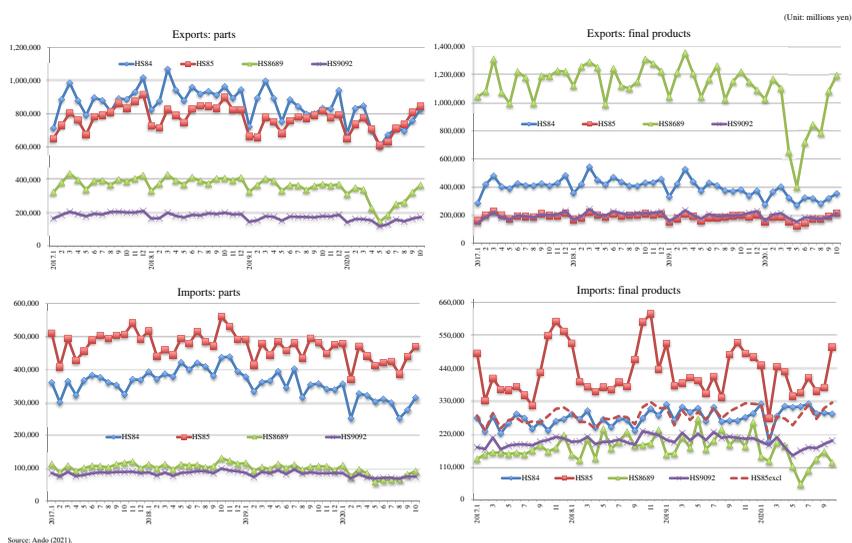
to improve the situation immediately. Even if East Asia continues to contain the disease relatively well, negative demand shocks from the rest of the world may continue for a while. With possible third and fourth waves of COVID-19, restrictions on people's movements, both domestic and cross-border, can only be removed gradually.

However, this circumstance presents a notable difference from the past economic crises, such as the Global Financial Crisis in 2007-2008. We still observe a remarkably strong performance in the financial sector as well as no collapse in asset markets. These outcomes are probably caused by unprecedentedly strong mitigation and macro stimulus policies. Negative demand shocks may be prolonged, and we must carefully observe how far aggressive policies can be sustained. Nevertheless, we are managing the situation well thus far.<sup>4</sup> Negative demand shocks seriously damage domestic services sectors such as various on-site services, transportation, tourism, and tradables (specifically apparel), a situation which drastically pushed down GDP while tradable sectors (particularly those with on-line shopping) are less affected. The bottom of international trade occurred at around May 2020 in most of the East Asian countries but the recovery may not be straightforward and show a K-shape trend.

Table 1 presents the seasonally unadjusted Japanese monthly export/import data for machinery parts and final products (HS84: general machinery, HS85: electric machinery, HS86-89: transport equipment, and HS90-92: precision machinery) from January 2017 to October 2020. Trade was already sluggish in 2019, but an obvious drop because of COVID-19 occurred in 2020. As for imports of parts and final products, a salient trough was observed in February 2020, an outcome which is mainly caused by an interruption of imports from China, which was a negative supply shock. However, the trade quickly recovered in March 2020. Another large trough is noted on the export side in May 2020 because of negative supply shocks at home and negative demand shocks abroad. In particular, a drop of built-up car exports included in HS86-89 was salient. HS 85 presented strong imports due to positive demand shocks.<sup>5</sup>

<sup>4</sup> Concerns about fiscal health in the long run are presented in Zen and Kimura (2020).

<sup>5</sup> In Table 1, HS851712 indicates cellular phones, which generate large fluctuations in the import of final machinery products.



Source: Ando (2021)

Note: HS85excl is the case excluding HS851712

**FIGURE 1**

MACHINERY EXPORTS AND IMPORTS BY JAPAN: MONTHLY, HS84-92

IPNs in East Asia, particularly in machinery industries, have proven to be robust and resilient again. A series of past studies including Obashi (2010), Ando and Kimura (2012), and Okubo, Kimura, and Teshima (2014) rigorously confirmed that machinery parts and components trade in East Asia was more robust and resilient than other types of trade, such as those in other goods and in other parts of the world, against substantial negative shocks including the Asian Currency Crisis, the Global Financial Crisis, and the East Japan Great Earthquake. This situation arises because IPNs include relation-specific, well-coordinated connections for which sunk costs are required in the long-run perspective. Once such an investment is made, firms would like to maintain the connection, even if temporary shocks occur. Negative supply shocks at this time were regarded as temporary, and this circumstance did not force firms to reshuffle their IPNs. Prolonged negative demand shocks, however, would trigger major changes in IPNs.<sup>6</sup> Some extra effort may thus be required

<sup>6</sup> See Kimura (2020). A JETRO survey on foreign affiliates of Japanese firms published in September 2020 (<https://www.jetro.go.jp/biz/areareports/special>)

for hosting countries to keep IPNs.

Private companies are smart enough to manage the design and operations of IPNs by optimizing a balance between efficiency and risk management even before COVID-19. That situation explains the absence of massive reshuffling of IPNs thus far.

### **III. The US-China Confrontation**

Trade policy by the US Trump Administration was problematic from the beginning. The US openly abandoned its position as a rule setter or a rule keeper in the international trade regime and started selfishly seeking advantageous bilateral deals by linking various policy modes such as national security. Renegotiations of FTAs, notably for the new Korea-US FTA (KORUS) and the new North American FTA (NAFTA, renamed as USMCA), included several protective and unusual measures in or out of the main text, such as the postponement of existing liberalization commitments, voluntary export restraints, the link of wage levels with the rules of origin, the link with exchange rate manipulation, and virtual prohibition of concluding FTAs with non-market economies (the so-called poison clause). Section 232 of the US 1962 Trade Expansion Act, which allows the US government to impose trade restrictions for national security reasons, was obviously abused, at least from the viewpoint of the trading partners, in the imposition of tariffs on steel and aluminum products imported from specific countries. Then Section 301 of the US 1973 Trade Act, which allows the US government to impose retaliatory measures against countries exercising unfair trade practices, was applied to China in four waves. These measures were inconsistent with World Trade Organization (WTO) commitments or at least violate norms in the rule-based trading regime. Some of the retaliatory or countering measures implemented by the trading partners also seemed to be WTO-inconsistent, thereby further weakening the rule-based trading regime.

The economic effects of a trade war are exactly the opposite of those from regional economic integration. When Countries A and Country B conclude an FTA, Country C experiences a positive trade creation effect

([/2020/0901/700949ccb7761567.html](#)) also indicates that their major concern resided on the demand side.

because of the activated world economy by the FTA and a negative trade diversion effect because of a reduction in exports to A and B. In most simulation results, the total economic effects on Country C are likely to be slightly negative. In the case of a trade war between Countries A and B, Country C encounters a negative trade creation effect and a positive trade diversion effect, with the latter possibly surpassing the former. In fact, several Association of South-East Asian Nations (ASEAN) member states conducted aggressive trade and investment promotion policies to capture that positive trade diversion effect, an endeavor in which Vietnam was particularly successful. However, the US-China confrontation is expanding its scope, and a negative trade creation effect seems to dominate gradually.

Unfortunately, the US-China confrontation did not limit itself to a trade war. A series of Huawei issues were early symptoms in which the concept of national security was expanded in definition and cases were linked with broader concerns related to the strategic conflict between the superpowers. The leakage of technologies and scientific knowledge generated a list of serious concerns on the US side. As for the broadly defined “sensitive” technologies possibly linked to security issues, several restrictions on China-related activities began to be implemented with a strong bipartisan congress support, including the strengthening of export control and of inward foreign investment regulations and the exclusion of China-related companies from the US government procurement and of China-related companies from supply chains (the so-called “clean network” initiative). The confrontation has intensified further during the COVID-19 pandemic with enhancing mutual mistrust. Decoupling will surely be developed although we do not know the scope yet.

The responses from the Chinese side have also become increased. China stopped hiding its dissatisfaction and started being aggressive against not only the US but also other countries. China sometimes applied trade policy and other economic policies to express political dissatisfaction against its neighbors such as Japan and South Korea but now does not restrain itself against others, including Australia. A crush at the border between India and China aggravated their bilateral relationship. The national security legislation was imposed in Hong Kong. The Export Control Act and other measures were enforced in response to similar legislation on the US side but with more room for policy discretion. Decoupling pressure to third countries may now

emerge only from the US but also from China.

The Biden Administration seems to keep a hardline approach on economic issues against China, at least for a while; thus the inertia of decoupling may be intensified. Middle powers between the US and China have established close economic relationships with both nations despite the varying country-by-country “distances” from the two superpowers. The US and China themselves also have a close economic relationship, and therefore many economists believe that their decoupling cannot resemble a real cold war between the US and the former Soviet Union. From the viewpoint of in-between middle powers, ascertaining the scope of the coming decoupling is crucial as regards industries, firm nationalities, and geographical extensions. Firms whose technology is likely to be sensitive have already started moving out of China. However, other firms tend to stay and carefully watch how the decoupling would proceed. The US-China confrontation is therefore generating serious uncertainties in the operation of IPNs.

#### **IV. Penetration of Digital Technology**

Another element related to IPNs is digital technology. Digital transformation is accelerated by COVID-19 in developed and developing countries, particularly at the forefront of communications technology (CT) such as the Internet and smartphones. Restrictions on people's movements have been a major challenge for IPN operations. However, we have not yet observed any notable reshuffling of IPNs despite the serious lack of physical movements of people. Instead, firms have intensified the usage of online communication as a substitute. Such an effort is likely to generate irreversible changes in CT usage which works as a complement to the physical movements of people and reduces the costs of service links that remotely connect located production blocks even after the resumption of the movement of people. Certainly, developing countries must soon face another challenge when the massive introduction of information technology (IT) such as robotics and artificial intelligence begins in developed countries. Together with the upgrading of CT, developing Asia must keep up with the trend of intensifying IT in manufacturing activities.<sup>7</sup>

<sup>7</sup> A simplistic gravity equation exercise by Obashi and Kimura (2020) suggests

In addition, a new type of international division of labor or the third unbundling is expanding under COVID-19. Again, in developed and developing countries, COVID-19 pushes us to expand teleworking by CT. This situation substantially lowers the technical and psychological barriers to utilizing cross-border service outsourcing, a situation which, in turn, accelerates the development of the third unbundling; that is one task can be completed by remotely located individuals. Although capturing such a trend in official statistics is difficult presently, anecdotal evidence exists. For example, after COVID-19 came to Japan, online English conversation classes for children boomed. Outstanding English language teachers are located mostly in Cebu Island in the Philippines, where prices are much cheaper than for on-site English classes in cities with extensive product differentiation. Moreover, multiple ranking systems are on the Web. Digital connectivity is also a powerful feature for carrying out digitized services regardless of physical distance.

## **V. New Roles Played by Mega-FTAs**

We are now facing multiple uncertainties in the trading regime. In particular, from the viewpoint of middle powers, the behavior of superpowers is entirely uncontrollable. However, at least one approach would partially mitigate the difficulty: the formation of a mega-FTA network.

A mega-FTA is defined here as an FTA of more than two countries and has two roles to play: further liberalization and international rulemaking. Since its establishment, the WTO has unfortunately been unable to lead trade and investment liberalization and new rulemaking so as to evolve the international trade order to reflect rapidly advancing globalization. Even if they involve a limited number of countries, mega-FTAs are meant to lead the world by showing a new standard of liberalization and novel rulemaking. Since Mr. Trump came into the White House, however, the weakening of rule-based trading regime has advanced particularly because of the discretionary manipulation of trade policy by superpowers. Therefore, the original two roles are

that the introduction of industrial robots and the betterment of CT make newly developed East Asian economies enhance their involvement in IPNs.

continuously important, but a couple of new roles are added, namely, to reduce policy risks and form a pro-trade middle-power coalition.

Furthermore, people have started emphasizing the notion that mega-FTAs are not static but are expected to be dynamic. Signing, ratifying, and validating are not the final goals of a mega-FTA. A mega-FTA can be a living, evolving agreement; thus how to utilize it effectively and to what extent it can be developed become important. From such a viewpoint, we briefly review two major mega-FTAs in East Asia: the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) that was signed by 11 countries in March 2018 and became effective in seven countries at present and the Regional Comprehensive Economic Partnership Agreement (RCEP) that was signed by 15 countries, excluding India, in November 2020.

The CPTPP was concluded after the US walked out of the original Trans-Pacific Trade Agreement (TPP) and thus substantially reduced trade creation effects. However, the CPTPP successfully set a new standard of the liberalization level and the proto-type format of international rulemaking for East Asia. Any trade agreement in this region will be evaluated in comparison with the CPTPP from now on. The CPTPP also substantially reduces policy risks at least among the member states and forms a pro-trade coalition of middle powers located between the US and China. CPTPP member countries may find it difficult to directly address superpowers. Nevertheless, the CPTPP can stabilize trade relationships among the member states and appeal for the importance of free trade and investment to the rest of the world.

The evolving nature of the CPTPP is particularly found in the possible expansion of its membership. The United Kingdom (UK), Thailand, and other nations are now seriously considering accession to the CPTPP.<sup>8</sup> With these countries, the CPTPP would more clearly express its characteristics as a pro-trade middle-power coalition. With Japan as chair of the CPTPP Committee in 2021, some accession negotiations are likely to start soon. It is logical for South Korea to join the CPTPP to create a good balance between the US and China as a free-trade supporter. The US may not come back immediately, but in some form, the US would revive its presence in East Asia. A direct return to TPP would obviously

<sup>8</sup> The UK formally applied for CPTPP membership on February 1, 2021 (<https://asia.nikkei.com/Economy/Trade/UK-to-apply-for-TPP-membership-Monday-for-bridge-to-Asia>, accessed on January 31, 2021).

be easiest and would require a small negotiation on 22 frozen items set up for the CPTPP. Nevertheless the US may want to expand the scope of the agreement, particularly as regards labor and environment, thereby reflecting the interest of the Democrats. In any case, other countries would be wise to join the CPTPP before the US.

China also expresses its interest in joining the CPTPP. If China was engaged in a substantial reform to make itself a “normal” country, then we should certainly welcome it. China would encounter three major hurdles to meet the qualification: liberalization, state-owned enterprises (SOEs), and e-commerce. As for liberalization, the CPTPP requires a 99%–100% tariff removal in terms of the tariff lines and services and investment liberalization in the negative-list approach (the method in which non-liberalizing items are listed). These features are at liberalization levels that China has not yet experienced. The discipline of SOEs would basically entail that SOEs be requested to not jeopardize healthy competition with private companies in both domestic and international markets. The e-commerce chapter of the CPTPP would require countries to follow three major principles: free flow of data, no imposition of data localization requirements, and no imposition of forced disclosure of source codes. If we interpret these policy disciplines literally, China must conduct a series of substantial reforms. However, China may post that the situation is a matter of negotiation. Actually, tariff removal coverage is 95% for Japan because of its agricultural protection. Many exclusions and exceptions are involved in the discipline on SOEs, particularly in Malaysia and Vietnam. As for e-commerce, how strictly these policy disciplines would be enforced in the interface with each country's domestic laws and regulatory framework remains unclear. CPTPP member countries must stringently assess their own implementation of the policy discipline and clarify the aspects that would be requested from China to meet the qualification.

The assessment of the RCEP in journalism tends to occur at two extremes. One camp examines the country coverage and asserts that the RCEP would be the largest FTA in the world and be likely to be dominated by China. The other claims that the liberalization level of the RCEP would be too low and that such a low-quality agreement would entail minimal economic gains. I think both assertions are somewhat misleading. The RCEP was, in fact concluded under the strong initiative of the ASEAN and not of China. Moreover, the living, evolving nature of the agreement must be emphasized in terms of liberalization and rulemaking.

The level of tariff removals is low in the RCEP relative to the CPTPP but is not extremely low at 91% on average. Japan will be connected to China and South Korea for the first time by an FTA. Tariff removals will be advanced compared with existing ASEAN+1 FTAs, particularly in cases of ASEAN latecomers, *i.e.*, Cambodia, Laos, Myanmar, and Vietnam. The rules of origin will be more trade-friendly than existing FTAs. Service liberalization attempts to apply a negative-list approach which will require some additional negotiations. Thus, we will observe some positive trade creation by the RCEP. The rulemaking of the RCEP will cover a wide range of policy modes and will set the starting point of further rulemaking negotiations for China and ASEAN Member States. In particular, the e-commerce chapter states the free flow of data and no data localization requirements, with a wide range of exemptions. An RCEP review is planned five years after the agreement takes effect. Both the liberalization and the rulemaking must be deepened so as to catch up with the standard that the CPTPP establishes.

Is it possible for the RCEP to reduce policy risks and help form a middle-power coalition? Communications between China, Japan, and South Korea have always been thin even if these countries have deep economic relationships. Would it be beneficial to expand communication channels? China sometimes utilizes spotty trade policy to express its political dissatisfaction. Can other countries have any opportunity to discuss this situation in RCEP-related meetings? India walked out of the RCEP negotiation mainly due to its concerns about trade deficit against China. Can India consider the importance of IPNs and return to the RCEP? The signing of the RCEP was possible because of the centrality of the ASEAN. Is such a strong initiative by the ASEAN sustained? Utilizing the forum effectively in an evolving manner is vital particularly in the case of the RCEP.

## **VI. Conclusion**

Covid-19 is certainly a serious challenge for IPNs in East Asia. However, IPNs are effectively managing negative supply shocks and positive demand shocks and are continuously fighting against negative demand shocks. With the acceleration of CT usage, Factory Asia seems to be rather strengthened relative to the other parts of the world, after COVID-19.

The US-China confrontation and the weakening of rule-based trading

regime have generated many uncertainties in the operations of IPNs and other types of economic activities. Middle powers located between the US and China would like to maintain good economic relationships with both if possible. The private sector attempts to perceive the scope of decoupling very carefully. Although the governments of middle powers cannot entirely control the discretionary moves of superpowers, some approaches can reduce uncertainties. One of the possible measures is the formation of mega-FTAs. In parallel, middle powers must be proactive in the WTO reform and not just be free riders as they have been in the past.

The US Biden Administration is a big hope for East Asia and the world, but we are unsure about its trade policy. The inclination toward domestic industrial revival may potentially connect to protectionism. The attitude toward the WTO and rule-based trading regime also remains unclear. A tough stance toward China seems to continue, although the extent of decoupling is unknown. Finally a pro-trade middle-power coalition in East Asia would play an important role for the US to return to an orderly trading environment.

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