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Offensive decoupling and realignment of trade in Northeast Asia

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Abstract

Trade relations between China and its neighboring countries in Northeast Asia and Southeast Asia have exhibited varying trends of change. Notably, Japan and South Korea have clearly demonstrated a clear shift towards "distancing themselves from China and approaching the United State" in their trade practices. This development trend is in sharp contrast to the prevailing "dual structure" theory that describes the separation of politics and economy in East Asia. As the strategic competition between China and the United States intensifies, Japan and South Korea, as allies of the United States, are increasingly succumbing to American coercion and intensifying efforts to decouple trade with China. The reason why the United States can achieve this goal is twofold: firstly, in the field of security, by strengthening the China threat or regional tensions, it forces Japan and South Korea to increase military spending, forming a confrontational situation and thus compressing the space for cooperation between China, Japan, and South Korea; the second is in the field of economy and trade, using value chains and domestic market opportunities to coerce Japanese and Korean companies to invest in the United States and reduce trade in strategic industries with China. The above-mentioned active decoupling of the United States, Japan, and South Korea from China can be attributed to an offensive strategic decoupling. As long as the United States does not change its positioning as China's biggest strategic competitor, the economic and trade relations between Japan and South Korea with China will continue to distance further.

Keywords China–US relations · Japan · South Korea · Realignment of trade · Offensive decoupling · Military expenditure

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1 Introduction

A major phenomenon emerging in the field of international trade in recent years is the "geopolitical fragmentation of trade" (Campos 2023). A typical example of this is the changes in Russian trade since the Ukraine crisis. The United Nations Conference on Trade and Development (UNCTAD) believes that international trade has become increasingly fragmented along geopolitics (UNCTAD 2023). Compared with the trade changes in Russia and Ukraine, the trade realignment in East Asia deserves greater attention, as the total trade between China, Japan, and South Korea in 2023 accounts for about 18.1% of the world's goods trade (Trilateral Cooperation Secretariat 2024). Moreover, China is not only the most important global trading player at present but also an important geopolitical player. The intensification of strategic competition between China and the United States has become the most important geopolitical phenomenon of our time. After the outbreak of the 2018 US–China trade war, China's share of US trade decreased, and there has been an increasing amount of literature discussing the decoupling of US–China trade (Fajgelbaum and Khandelwal 2022; Caliendo and Parro 2023).

Although the proportion of trade between China and the United States has decreased, a large amount of literature expects that China will continue to export to the United States through other countries, resulting in a continued increase in China's trade volume with other countries. However, Northeast Asia seems to be an exception. Japan's trade with China and South Korea's trade with China have both shown a declining trend. Since 2007, China has been Japan's largest trading partner. However, China and the United States have alternately become Japan's largest export destinations. China first became Japan's largest export destination in 2009, and the United States once again become Japan's largest export destination since 2023.[1] According to data provided by the Bank of Korea, the United States surpassed China to become South Korea's largest export destination in 2022, marking the first time since 2004 that the United States has been surpassed by China (Kang 2023). The Korea International Trade Association (KITA) also noted that South Korea's share of China's import market decreased by 1.1 percentage points year-on-year in 2023, reaching its lowest point in 30 years (Jin 2024). Although China remains South Korea's largest export destination in 2023, the United States, as South Korea's second-largest export destination, has narrowed its gap with China to 1.4 percentage points, the smallest gap between the two countries in 20 years (Yeo 2024). As Donald Trump begins his second term as President of the United States in January 2025 and continues to implement tariff policies, it is worth noting how China's trade with Northeast Asia will experience restructuring. This not only affects the relations between countries within the region but also involves major challenges in international relations theory regarding trade and conflict relations, namely whether the realistic logic of political determination of economic relations

[1] The author calculated based on data from the Japan External Trade Organization. The data refers to the trade of goods. The data can be found at the website: https://www.jetro.go.jp/en/reports/statistics.html.

or the logic of economic interdependence ultimately prevails (Reuveny and Kang 1996; Keshk et al. 2004; Kim and Rousseau 2005; Brooks 2024).

This article examines the intensification of strategic competition between China and the United States since the Trump administration took office in 2017, as well as the changes in trade relations between China, Japan, and South Korea. During President Donald Trump's first term, the United States launched a trade war against China in a unilateral manner. However, under the Biden Administration, the United States coerced its allies into joining the trade war with China. We argue that the alliance between the United States, Japan, and South Korea affects trade between China and Japan, China and South Korea when the alliance is used by the United States for strategic competition against China. Moreover, to understand the impact of political factors on third-party trade relations, this article uses the term "offensive decoupling" to describe the strategic behavior of Japan and South Korea being forced to follow the United States decoupling from China under the influence of the United States. Due to the close connection between high technology and national security, the effect of offensive decoupling in the high-tech field is more significant than in the medium and low technologies. To verify this hypothesis, this article separates strategic industries trade from total trade. The main finding of this article is that strategic industries are the most severely decoupled industries in China's trade with Japan and South Korea, and the realist perspective is significantly affecting the economic and trade relations within the region.

2 Realignment of trade relations between China, Japan, and South Korea

The trade pattern in Northeast Asia has undergone significant changes in the past two decades. In the first decade of the twenty-first century, China surpassed the United States to become the most important export market for Japan and South Korea. While Japan and South Korea are important allies of the United States in East Asia, the fact that their largest trading partner is not the U.S. creates a common misconception: that economic interests and security can be treated as separate entities. However, after entering the third decade of the twenty-first century, there have been signs of trade realignment between Japan and China, South Korea and China, with the United States once again becoming the largest export destination for both countries. As shown in Fig. 1, the peak year for China as a trading partner of Japan and South Korea was in 2020. But between 2020 and 2024, both Japan and South Korea's share of China's trade volume decreased by 3.9 percentage points. Among them, the decline in exports is more severe. During the same period, China's share of exports to Japan and South Korea decreased by 4.4% and 6.4% respectively. The United States surpass China in 2023 to become Japan's largest export destination. South Korea's export layout has undergone the same changes as Japan. Both the data from the IMF and the South Korean Ministry of Trade, Industry and Energy illustrate that, as the top two export destinations for South Korea, the United States share in 2024 is less than 0.7% smaller than China's. Therefore, a trend is that Japan and

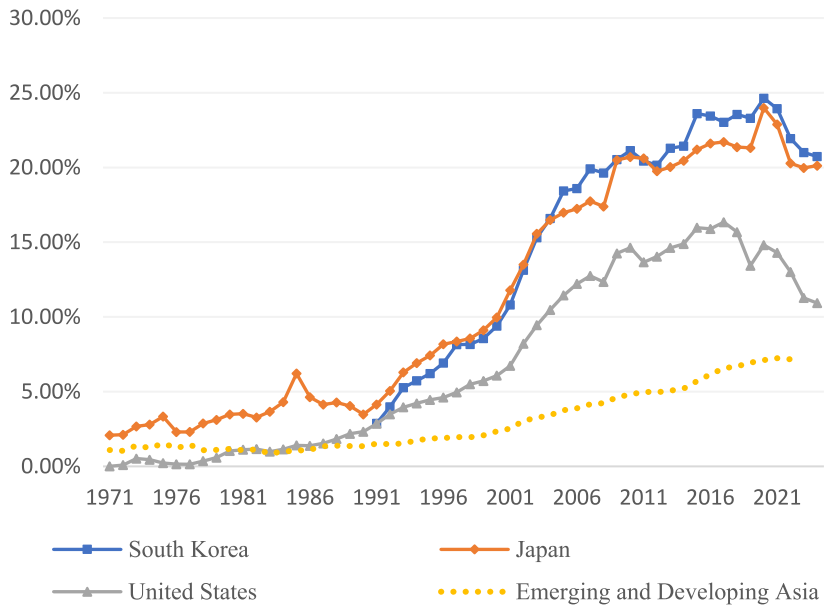

Fig. 1 China's trade position among major economic partners (1971–2024). Source: The data as of 2022 comes from the IMF's Direction of Trade Statistics (DOTS). The data for 2023–2024 comes from the statistical departments of the United States, Japan, and South Korea. Among them, the data for the United States comes from The International Trade Administration, U.S. Department of Commerce: https://www.trade.gov/data-visualization/us-goods-trade-global-partners. The data for Japan comes from The Portal Site of Official Statistics of Japan: https://www.e-stat.go.jp/en/stat-search/files. The data for South Korea comes from the Korea Customs Service: https://tradedata.go.kr/cts/index_eng.do

South Korea place more emphasis on the United States, while China's trade status has declined.

There are two important trends that are worth noting. As shown in Fig. 1, firstly, when China's position as a trading partner of the United States, Japan, and South Korea declined, China's position as a trading partner of emerging and developing Asia did not show a significant decline. According to data from the International Monetary Fund (IMF), China's trade share with the United States, Japan, and South Korea decreased by 1.8%, 3.7%, and 2.7% respectively from 2020 to 2022, but China's trade share with emerging markets in Asia remained relatively stable. China's share of ASEAN foreign trade has increased from 18.8% in 2022 to 19.8% in 2023, with both imports and exports increasing by 1 percentage point year-on-year.[2] Although the IMF did not provide trade data between emerging markets and China for 2023–2024, it does not affect the trend observed in this article, which is that there has indeed been a turning point in trade between the United States, Japan, and South Korea and China.

[2] The author calculated based on data provided by the ASEAN Statistics Bureau (ASEANstats), with reference to https://data.aseanstats.org/trade-annually.

Secondly, the timing of the turning point in China's share of US, Japan and South Korea's trade varies slightly. The peak for the United States was in 2016, while the peak for China as a trading partner with South Korea and Japan was in 2020. Therefore, a clear trend we have observed is that the changes in China US trade relations preceded the changes in China's trade relations with Japan and South Korea. Moreover, in terms of the proportion of China's exports to the United States, Japan, and South Korea, the peaks occurred in 2020, 2020, and 2018, respectively.[3] This means that South Korea has followed the United States in pursuing strategic decoupling since 2019. However, because China has remained a crucial source of imports for both Japan and South Korea, people at the time felt that the problem was not as serious as it seemed.

Economists typically use the Trade Intensity Index (in short TII)[4] to measure the closeness of trade relations between two countries (Kim 2013). When TII is greater than 1, it indicates that two countries have a close relationship in terms of trade. If the index is less than 1, the trade relationship between the two countries is relatively distant. Using data provided by the IMF, we found that since the beginning of the twenty-first century, the TII between South Korea and the United States has shown a U-shaped relationship, even less than 1 for a long period of time. The TII between Japan and the United States is always greater than 1. In the past decade, the lowest TII of South Korea and the United States was 0.94 in 2018, and the lowest TII of Japan and the United States was 1.36 in 2021. In 2024, the TIIs of South Korea and the United States, Japan and the United States are 1.37 and 1.46, respectively. This means that in recent years, both South Korea and Japan have strengthened their trade relations with the United States.

The machinery and transport equipment (SITC 7) are considered the most important component of China's participation in East Asian intermediate goods trade (Huang et al. 2017)[5]. The proportion of machinery and transport equipment in China's imports from South Korea has steadily increased from 32.9% in 2001 to 62.3% in 2023. The proportion of machinery and transport equipment in China's imports from Japan has decreased from 56.3% in 2001 to 55.5% in 2023. As shown in Fig. 2, unlike the steady growth of machinery and transport equipment imported from South Korea, China's imports from Japan saw a significant decline in 2012. Consequently, South Korea has surpassed Japan since 2013 to become China's largest source of imported machinery and transport equipment. However, as we expected that this growth momentum reached its peak in 2021. In 2023, China's imports of machinery and transport equipment from Japan decreased by 22.1% compared to

[3] The IMF provides updated export data for each country up to 2024, but import data for each country is as of 2022.

[4] The trade intensity index of country i's export trade with country j is defined by $I_{ij} = \frac{\left[\frac{X_{ij}}{X_i}\right]}{\left[\frac{X_j}{X_w}\right]}$, where X_{ij} is country i's export to country j, and X_i, X_j, and X_w represent the total export of country i, total import of country j, and the total volume of world trade respectively.

[5] Thanks to an anonymous reviewer for pointing out that total trade volume is not sufficient to fully demonstrate the complexity of China's trade with Japan and South Korea, and it is necessary to add a more comprehensive approach.

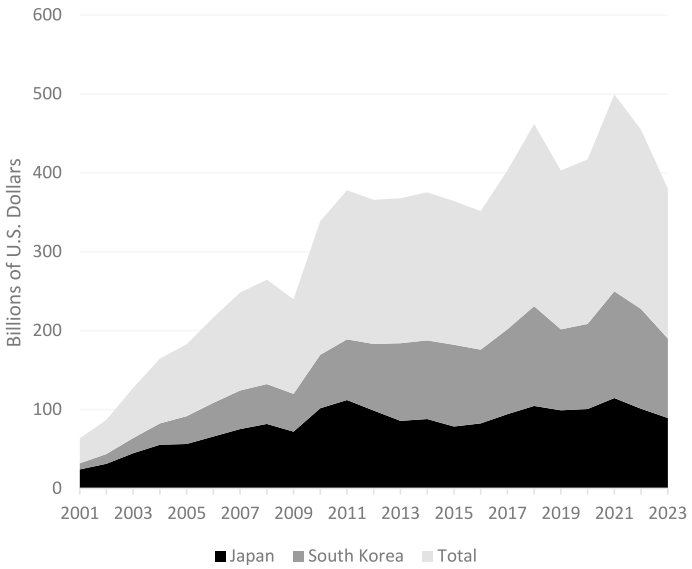

Fig. 2 Import of China by SITC 7 from Japan and South Korea (2001–2023). Source: UN Comtrade Database, https://comtradeplus.un.org/

2021, and China's imports from South Korea decreased by 25.5%. It strongly demonstrates that the recent decline of intermediate goods is greater than during the 2008 Financial Crisis and the Diaoyu Islands dispute between China and Japan.

The restructuring of trade relations in Northeast Asia involves debates on regional order. After the 2008 Financial Crisis, many people pointed out a development trend in East Asia of "economic dependence on China and security dependence on the United States" (National Intelligence Council 2012). Some even believe that Asia is divided into two parts, one is an economically more integrated "economic Asia" centered on China; another is the more prominent role of the United States in the "security Asia" (Feigenbaum and Manning 2012). "Hot economics, cold politics" is also a typical term used to describe Sino-Japanese relations (Dreyer 2014). The observation and generalization of this so-called "dual structure" of separation between politics and economy have influenced a number of research achievements in the Chinese academic community and sparked long-term debates in Chinese public opinion (Zhou 2012; Zhao 2015). It should be noted that the reason why many Chinese scholars use the concept of "dual structure" to describe the transformation of the regional pattern is also related to the lack of more accurate and vivid terminology in the academic community to define the post-Cold War regional order.

An obvious difference between Northeast Asia and Southeast Asia is that the United States has a strong alliance in Northeast Asia, whereas its relationship with Southeast Asia is comparatively weaker. Due to the strengthening of the alliance system by the US government, the security situation of the former is complex and difficult to solve. In the absence of significant changes in other factors, the impact of changes in security relations on trade relations has become an important factor

in understanding trade relations in the region. The restructuring of trade relations in Northeast Asia is not simply an economic issue, but a political economy issue closely linked to geopolitical changes. In international political economy theory, there are two representative views on the fundamental driving force of trade pattern. Liberals believe that trade operates under its own logic of development, capable of transcending geopolitical conflicts. They argue that the development of trade can drive political relations. Realists believe that the development of trade relations is determined by political relations, and once significant changes occur in political relations, trade relations will also change accordingly. The fundamental challenge facing countries in Northeast Asia is whether the trade relationship between China and Japan and South Korea can continue to be maintained if the confrontation between China and the United States intensifies? If the answer is negative, it means that the realist viewpoint will prevail.

3 Theoretical debates on trade realignment

The observation of geopolitical and economic changes in East Asia over the past two decades has mainly been influenced by globalization and economic liberalism perspectives. This viewpoint holds that the long-term impact of economic rise is to change the geopolitical landscape, with at least two effects driving this change. The first effect is that the development of economic relations has turned more and more neighboring countries into China's largest trading partners, encouraging them to foster more amicable bilateral relations with China. The second effect is that the substitution and complementarity of trade between China and neighboring countries changes with China's development stage. In the early stages of economic development, China's attraction of foreign investment can easily lead to crowding out effects, reducing the level of foreign investment absorption in low- and middle-income countries. At the same time, due to China's open market, more products from low- and middle-income countries can be imported, further strengthening the relationship between the two sides. On this basis, theoretical literature related to understanding changes in Northeast Asian trade relations can be further summarized into three categories.

3.1 China's industrial upgrading drives intensified economic competition

This viewpoint suggests that the change in trade patterns between China, Japan, and South Korea may be the result of the three countries' increasingly similar levels of economic development. China's rapid industrial upgrading has enabled domestic enterprises to manufacture products that were once produced by Korean or Japanese companies. Consequently, there is less need to import similar goods from Japan and South Korea, leading to a decline in trade of these products between the countries. As the Bank of Korea recently warned that "Korea's economy will likely find it difficult to reap the benefits of the trade expansion with China like it did in the past, as China's export similarity rose due to its increased self-sufficiency in intermediate

goods and enhanced technological competitiveness" (Bank of Korea 2024, 43). The research in the field of economics usually explains this change from a relatively positive perspective, believing that as long as the industries of Japan and South Korea continue to upgrade, there is still a broad space for mutual benefit and win–win between China, Japan, and South Korea.

However, people have also observed that the rapid changes in trade relations between China, Japan, and South Korea in recent years are difficult to explain from the perspective of China's industrial upgrading. Overall, as industrial upgrading is usually a slow process, changes in trade relations are not very drastic. For example, the US-Japan trade friction has gone through several stages, spanning over 20 years from the 1970s to the 1990s, from textiles to semiconductors. Therefore, the changes in economic relations between countries caused by industrial restructuring and technological upgrading will not quickly lead to the deterioration of political relations.

A viewpoint that aligns more closely with the perspective of industrial upgrading holds that the decline in trade volume between China, Japan, and South Korea is influenced by economic cycles. Due to the current weak global economic recovery and the less developed economic conditions of Japan and South Korea compared to the past, the decline in trade volume can be attributed to the overall contraction of their economies. However, this viewpoint may not explain why the economic and trade relations between China and ASEAN became closer during the same period. Even though Japan and South Korea are more susceptible to the impact of deteriorating global economic and trade situations in the same region, it is difficult to demonstrate that leaving China, a growing market, is a rational choice.

3.2 Changes in value chain trade

The second representative viewpoint holds that the transformation of trade relations between China, Japan, and South Korea is due to the failure of traditional methods of trade statistics. In recent years, many analysts have suggested that considering that value-added trade accounts for nearly 70% of global trade, it is necessary to accurately calculate the added value of each product from different countries, rather than considering the final product as the most important trade method. With the increasing importance of value-added trade in global trade, which constitutes the absolute majority of international trade, the traditional method of calculating trade benefits on a country-by-country basis is not very accurate. It is necessary to assess costs and benefits from the perspective of the production process and discuss whether the trade relationship between the two countries is strengthening or weakening.

According to the calculation of value-added trade, the decoupling between China and the United States seems exaggerated. After the outbreak of the China–US trade conflict, the United States reduced its imports from China and shifted the focus of its import market to other low-cost producing countries, with Vietnam, Mexico, and others becoming the biggest export winners. However, these countries also import a large amount of intermediate goods from China, thus becoming transit country between China and the United States in trade (Ding and Liu 2022). If we only consider the trade of final products, we may underestimate the importance of China.

Using a multiregional input–output table, it was found that the United States still has an increasing dependence on Chinese products in terms of value-added imports. For example, after considering the value-added portion of US imports from third countries to China, the share of US imports from China increased from 21.6% in 2017 to 23.3% in 2021 (Ma and Ning 2024). There are also studies suggesting that the US China trade war has enabled third-party countries to gain scale and efficiency and expand their exports, but there is little evidence to suggest that countries that vote in line with the United States at the United Nations have significantly reduced trade with China (Freund et al. 2024).

However, we also need to recognize that there are shortcomings in value chain analysis. The biggest drawback is that the existing value chain database updates slowly, and related research is mostly based on predictive analysis of existing data, making it difficult to conduct a systematic empirical analysis of the situations that have occurred over the past couple of years. As two renowned scholars studying the East Asian value chain have pointed out, empirical research faces significant challenges in quantifying the effects of trade controls, including government information disclosure, private sector responses based on commercial confidentiality, and inadequate commodity classification in trade statistics (Ando et al. 2024, 63). When there is no major change, the future situation is more consistent with the current prediction, and we can use this empirical analysis to infer the results. However, we are entering an era of great change, and such benchmark predictions may often be inconsistent with future development trends.

3.3 The impact of political disputes on East Asian economic and trade relations

The academic community has long been concerned about the impact of political disputes in East Asia on economic relations. For example, some studies tend to believe that the deterioration of political relations between China and Japan is an important reason for the decline in Sino-Japanese economic and trade relations (Nagy 2013; Kuang and Xiang 2017). Recent studies have found that the "Diaoyu islands purchase scandal" in Japan has had a serious negative impact on exports of Japanese cars, cameras, and other products to China, while raw materials and intermediate products have not been affected at all, and some have even achieved an increase in exports (Li and Liu 2019). However, while the positive impact of economic relations on political relations is acknowledged in academia, the perspective on their negative effects has yet to gain mainstream acceptance. Recent research emphasizes that the decline in Sino-Japanese trade is due to Japan's "pan securitization" trade policy (Su and Sun 2023).

A major drawback of the above view is that it assumes that the relationship between China and the United States does not change, that is, the international economic and trade environment is stable. The story of the real world is that China's trade with the United States, Japan, and South Korea has declined, but its trade with Southeast Asia has actually increased. Considering that Japan and South Korea are both political allies of the United States, it may be difficult for them to make

independent decisions when there is a significant change in US policy towards China. Further research is needed to achieve a unified understanding of these two aspects.

4 China–US strategic competition and offensive decoupling

Since the implementation of the reform and opening-up policy in China in the 1970s, China's trade share with the United States, Japan, and South Korea has continued to rise for almost four decades. As a result, the Chinese have formed a deep-rooted understanding that their Asian neighbors' "economic dependence on China" can be sustained over the long term. As long as economic power plays a role, the relations between China and South Korea, as well as China and Japan, will not continue to deteriorate, because economic figures from both countries will not allow security factors to undermine their economic and trade relations with China. However, in recent years, people have felt that the above understanding is an optimistic view of the smooth development of globalization. Once the world economy is in a prolonged period of downturn, the shift towards populism and nationalism in countries during difficult times will inevitably impact the high-functioning economic relations. In fact, before the reform and opening up, the Chinese were not unfamiliar with the major impact of geopolitical changes on economic relations. For example, from the end of the Korean War until Nixon's visit to China in the early 1970s, there was no trade relationship between China and the United States.

When the geopolitical relationship between China and the United States undergoes the most intense and enormous changes again, it is reasonable to anticipate a corresponding change in their trade dynamics. Since President Donald Trump's first term, the US government has clearly defined China as its main strategic competitor. This means that the United States has abandoned its policy towards China since the Nixon administration, and the security relationship between China and the United States has undergone substantial and significant changes. After Joe Biden took office, he reversed the Trump administration's policy of not valuing allies and attempted to further consolidate and develop the bilateral alliance system of the United States in Northeast Asia. Moreover, the Biden administration improved Japan-South Korea relations, to evolve towards a trilateral alliance system and change China's external environment.

An emerging body of literature suggests that China's trade with the United States has entered a phase of decoupling. The direct reason is the tariffs imposed by the United States on imported goods from China. According to estimates, China's share in US imports has decreased by more than 5 percentage points between 2017 and 2022 (Freund et al. 2024). A study from Oxford Economics shows that China's share of intermediate products imported into the United States has decreased from 18.5% in 2018 to 14.1% in 2022. Since November 2022, Mexico has surpassed China to become the largest international investment provider to the United States (Oxford Economics 2024).

There is much debate in the academic community about how Sino–US relations affect trade relations between China and Japan, as well as between China and South

Korea. Currently, discussions regarding Japan and South Korea trade with China and the behavior of multinational corporations from both countries are becoming increasingly complex. Some studies have shown that supply chains in East Asia have considerable resilience and the ability to maintain stability in times of tension (Solingen 2021). Some also believe that multinational corporations from Japan and South Korea have strong international competitiveness, and these companies are prone to contempt or disregard the regulatory power of the home country. China is an important market for Japan and South Korea, and Japanese and Korean companies will not give up the Chinese market. Therefore, the reshoring policies of Japan and South Korea towards China reflect more on the principle of adjusting their foreign economic policies, rather than an economic diplomatic strategy targeting Beijing. However, the study also warns that "the recent government moves to enhance economic security illustration that it is too early to conclude if non-market political factors will result in a determined response from China" (Katada et al. 2023, 1029). A study on how the US–China trade war affects South Korea's trade has also reached a similar conclusion, that "the adverse impacts of the US–China trade tension were largely not seen until quite recently… more time is needed to capture an exact effect of the ongoing trade tension between the United States and China on South Korea's exports" (Suh 2019, 159). A recent study by the Bank of Korea suggests that the conflict between China and the United States has led to a 3% to 5% decrease in South Korea's exports to China (Jung et al. 2024). Some scholars believe that if the current trend of confrontation between China and the United States continues, Japanese multinational corporations will gradually shift their "China Plus One" strategy towards "de-Sinicization" (Iida 2024).

4.1 Offensive decoupling under pressure from the United States

In theory, when discussing the relationship between economic interdependence and conflict, the student of international relations has long wavered between liberalism and realism. Liberals insist that economic interdependence helps prevent conflicts, while realists contend that it may also lead to negative consequences. To prevent the vulnerability caused by excessive dependence, which may lead to conflicts, it is necessary to minimize dependence on one country as much as possible, or even simply prohibit trade between each other. Geostrategies often do not consider economic benefits, which can quickly reduce trade with a particular country. So, why has geopolitical competition been on the rise in recent years? A reasonable explanation is that the expectation of future returns affects current behavior (Copeland 2014). At least in the high-tech field, the US government has already warned, as Nobel laureate in economics Paul Samuelson warned more than 20 years ago, that if China is allowed to upgrade its technology, it is likely to swallow up US market share and ultimately crush US industries (Samuelson 2004). To prevent such a situation from arising, the United States must take preemptive action. In the high-tech field, the relationship between China and the United States is showing increasingly strong zero-sum characteristics.

Accepting the expectation that a conflict between China and the United States is inevitable, or that relations will not improve in the medium term, has a significant impact on Japan and South Korea's policies towards China. If Japan and South Korea believe that the United States will emerge victorious in the competition with China, even if reducing trade with China may suffer some losses, leaning towards the United States will ultimately bring long-term benefits. In fact, many people in Japan and South Korea believe that the United States will win. One example of this belief is that both countries align with the U.S. in advocating for "Peak China". The Japan Economic Research Center predicts that the nominal GDP gap between China and the United States will further widen, making it difficult for China's total economic output to surpass that of the United States (Tomiyama 2023). For Japan and South Korea, the economic outlook for China in the short to medium term falls short of expectations, which precisely confirms the judgment of the trade expectations theory that future development prospects will also affect current policies towards China. Realists generally believe that the deepening of cooperation between the United States, Japan, and South Korea alliance will lead to further alienation of trade relations between Japan, South Korea, and China. The emphasis on alliance relations by the United States has led to Japan and South Korea becoming closer to the United States in terms of trade, while the US containment of China has damaged bilateral trade relations between China and the United States. The transformation of trade relations in Northeast Asia is often influenced by the strategic game between China and the United States, especially in light of the U.S "de-risking" policy.

We could identify the impact of US decoupling on Japan–Korea trade with China as aggressive decoupling. Realism in international relations can be classified into offensive realism and defensive realism. The major difference between the two is that the former assumes zero-sum characteristics of inter-state relations, while the latter believes that security cooperation is feasible. Economists also use this distinction to study the initiative and passivity of decoupling behavior. For example, Japanese economist Mitsuyo Ando et al. once defined policy measures to avoid supply disruptions caused by geopolitical conflicts as "defensive decoupling", while policy measures taken to combat opponents in strategic competition through decoupling are referred to as "offensive decoupling" (Ando et al. 2024). Jon Bateman from the United States also made a similar classification of decoupling as early as 2022. Bateman believes that a new American technological nationalism has emerged in Washington since Obama's second term, with a particular focus on China. The early actions of the United States were mainly defensive: restrictive measures aimed at thwarting or containing China's technological threats. But during the Biden administration, Washington increased its focus on offensive measures, such as taking proactive actions to cultivate America's own technological capabilities, such as investing in research and development (R&D) and education (Bateman 2022). Obviously, Jon Bateman's two types of technological nationalism are exactly opposite to Ando's. My definition of strategic decoupling is closer to that of Japanese economists, but it is used to analyze Japan or South Korea's behavior towards China under the influence of the United States. That is to say, shifting from a country's strategic choice to analyzing the coordinated changes in the US alliance system.

4.2 The growth of defense spending in Japan and South Korea and industry reinvestment

For the United States, the region where China is located is the most important strategic frontier, so the United States intends to manipulate its two military allies, Japan and South Korea, to strengthen their defense. During Trump's first term, allies constantly complained about the United States demand for increased military spending, but many countries ultimately felt compelled to increase their defense budgets under this pressure. South Korea's military spending has rapidly increased since 2018. The turning point for Japan seems to have been in 2018, but it was not until 2020 that the proportion exceeded 1% for the first time.

Changes in military spending are considered an important indicator for a country to judge and respond to changes in the geopolitical environment. During Donald Trump's first term, the United States not only demanded that Japan and South Korea increase their military spending, but also demanded that NATO allies do the same. However, this does not mean that the United States requirement is solely due to financial factors. After the outbreak of the Ukraine war in 2022, the United States has consistently asserted that it will maintain its position of viewing China as its main strategic competitor. It can be seen that containing China is another major driving force for the United States to demand that Japan and South Korea increase military spending. That is to say, the increase in military spending by Japan and South Korea is not only due to their strategic transformation towards independence but also in response to the United States' strategy towards China.

Japan's military spending accelerated after breaking through 1% of its GDP. In October 2021, the ruling Liberal Democratic Party of Japan proposed for the first time in its Prime Minister election manifesto to double the defense budget to 2% of GDP. One year later, the Japanese government released a new National Defense Strategy, which plans to increase defense spending to 2% of GDP by 2027. By then, Japan's military spending will reach $125 billion, second only to the United States and China (Mcgerty and Waldwyn 2022). It is not difficult to see that there is a certain connection between Japan's increased military spending and the United States' assessment of the situation in Northeast Asia. In July 2023, the Japanese Ministry of Defense positioned China as the "biggest strategic challenge of all time" in the new version of the Defense White Paper (Tan 2023). Although this statement is copied from the United States' positioning of China, it also indicates that Japan and the United States have highly aligned strategic security interests.

The changes in the security situation on the Korean Peninsula have greatly stimulated South Korea's military spending. After North Korea launched a reconnaissance satellite in November 2023, the South Korean government announced a significant increase in military spending over the next five years, expected to grow by 11.3% annually (Chavez 2023). According to this plan, South Korea's military spending will increase from $46 billion in 2023 to nearly $80 billion in 2028. In June 2024, Russian President Putin visited North Korea again after 24 years and signed the Comprehensive Strategic Partnership Agreement. The US South Korea alliance quickly responded to this. In August of the same year, South Korean President Yoon Suk Yeol and US President Joe Biden held bilateral talks during the

NATO summit in Washington, and the two countries' defense ministries signed the South Korean US "Guidelines for Nuclear Deterrence and Operations on the Korean Peninsula" agreement. The statement by the leaders of the two countries said that "this guideline document provides direction to Alliance policy and military authorities for maintaining and strengthening a credible and effective nuclear deterrence policy and posture" and "the ROK's full range of capabilities will greatly contribute to the Alliance's combined defense posture" (The White House 2024).

A cynical question to consider is how closely the increasing military investments by Japan and South Korea are correlated with their adjustments in economic ties with China?[6] Existing research has revealed that geopolitical risks have a significant impact on corporate decision-making. Large multinational corporations have already invested heavily in overseas markets, meaning they are more concerned about international developments than small and medium-sized enterprises that operate solely within the domestic market. Whether in Japan or South Korea, the dominant position of large enterprises in the political economy of both countries is beyond doubt, and their interaction with the political economy is also extremely frequent. In recent years, people have increasingly felt that the investment and operation of Japan and South Korea in China are increasingly influenced by the geopolitical situation. For example, the withdrawal of Lotte Group from its business in China in 2017 is widely believed to be influenced by the dispute between Beijing and Seoul over South Korea's deployment of the THAAD system (Jeong 2017). The strengthening of military cooperation between the United States and South Korea is also seen as an important driving force for Samsung Group to reduce its investment in China and increase its investment in the United States (Min 2025). In addition, some studies suggest that investment in the military sector can stimulate technological progress and domestic employment. After the Ukraine War, South Korea became an important arms seller in the international market. This directly stimulated the stock market performance of South Korea's defense-related industries, and international investors are also optimistic about the development of South Korea's chip manufacturers, electric vehicles, and energy facilities (Lim 2023).

4.3 US forces Japan and South Korea to reduce strategic industrial trade with China

The United States has adopted a long-term strategy of implementing a blockade against China in the high-tech sector, and this approach has been extended to its allies. As long as the military alliance between the United States and Japan and South Korea is not terminated, the deterrence and coercion of the United States will still be effective. In fact, the US government has restricted the export of high-tech products from American companies to China. Furthermore, it has demanded that

[6] In general sense, the increase in defense spending by Japan and South Korea may mainly be a reflection of their changes in military strategy, which is different from the United States' decoupling strategy towards China. However, as international political economists have repeatedly verified that trade follows the national flag. Thank anonymous reviewers for reminding the author of this point.

Japan and South Korea also reduce their exports of high-tech products to China under the pretext of alliance. According to the Financial Times (2024), despite Japan's concerns about retaliation from China, Japan and the United States will still reach an agreement to restrict technology exports to the Chinese chip industry under US coercion.

Another important means by which the United States coerces Japan and South Korea is through the use of their economic power, such as market access or government subsidies. The Biden administration has strengthened its attraction and coercion towards large Japanese and Korean companies operating in the United States by using high subsidies for industries such as automobiles and semiconductors. For Japanese and Korean companies operating in the US market, the lack of these subsidies may lead to concerns about being unable to compete with American companies and therefore being forced to meet the standards set by the US government. Faced with China's increasing competitiveness, the United States has begun to abandon ideological constraints such as the long-standing "Washington Consensus" and has used all means to intervene in industrial development and engage in international competition (Sullivan 2023). Guided by this new economic theory, the Biden administration passed the Chip and Science Act and the Inflation Reduction Act to promote the development of the US manufacturing industry. At the same time, South Korea's Samsung and SK have been required to increase investment in the United States while delaying or reducing investment in China's advanced technology to slow down China's development of cutting-edge defense technology (Kim 2023). It is reported that Korean companies have invested over $110 billion in the United States in the past three years, making South Korea the largest source of foreign investment in the United States (Byrne 2025).

The most apparent aspect of offensive decoupling is in strategic industries that are closely related to national security. Caroline Floyd believes that the 11 strategic industries defined by the U.S. Census Bureau and the ten high-tech industries identified in China's "Made in China 2025" (MIC2025) plan completely overlap, namely biotechnology, life science, optoelectronics, information and communication, electronics, flexible manufacturing, advanced materials, aerospace, weapons, and nuclear technology (Freund 2024). These industries are considered strategically and nationally important by both the Chinese and US governments. We use a 2-digit HS code to conduct statistics on the above-mentioned industries to discover their changing trends.

Since the beginning of the twenty-first century, the import of strategic industries in China has grown rapidly, currently exceeding $1 trillion—more than three times that of 20 years ago. At the same time, we also found that the proportion of strategic industry imports in China's imports has decreased from 58.2% in 2004 to 41.1% in 2023. This to some extent indicates that China has strengthened its domestic research and development and production through the "Made in China 2025" initiative, enhancing its strategic autonomy. Electrical machinery (HS85) and nuclear reactors (HS84) are the main industries for strategic industry imports, and in recent years, the former's position has become more prominent.

As for China's strategic industries imported from the United States, Japan, and South Korea, there are three characteristics worth noting. Firstly, there has been a

relatively consistent turning point in the total trade and trade volume of strategic industries, but South Korea's decline in exports of strategic industries to China is much earlier than the total trade volume, which seems to be regarded as a leading indicator. As shown in Fig. 3, between 2021 and 2023, China's share of exports to South Korea, Japan, and the United States decreased by approximately 8.0%, 5.0%, and 2.0%, respectively. The year 2015 marked the peak of the Chinese market's share in South Korea's strategic industry exports, reaching nearly 42%. Secondly, the importance of the Chinese market to South Korea is far greater than that of Japan and the United States. In 2015, China's share of South Korea's total strategic industry exports, almost twice that of Japan. But afterwards, South Korea adjusted its exports to China and implemented a diversification strategy, resulting in a decrease in its market share in China. It is worth noting that the fastest decline has been in recent years, which to some extent proves the role of pressure from the United States. The proportion of the Chinese market in the United States once exceeded 10%, but the turning point was in 2018 when it decreased by 2 percentage points year-on-year in 2019. Although the COVID-19 pandemic pushed up US exports to China, this increase was ultimately negated by a sharp decline in 2023.

Thirdly, among the top two import industries of strategic industries, the most drastic change is in electrical machinery. In 2023, the top two industries with the largest share of strategic imports to China from South Korea, Japan, and the United States are electrical machinery and nuclear reactors. The top two items with the largest proportion in Japan are electrical machinery (38.0%) and nuclear reactors (29.8%); the top two items with the largest proportion in South Korea are electrical machinery (69.6%) and nuclear reactors (12.3%); The top two items with the largest proportion in the United States are nuclear reactors (25.1%) and electrical machinery (17.7%). In 2023, in terms of electrical machinery, China's total imports

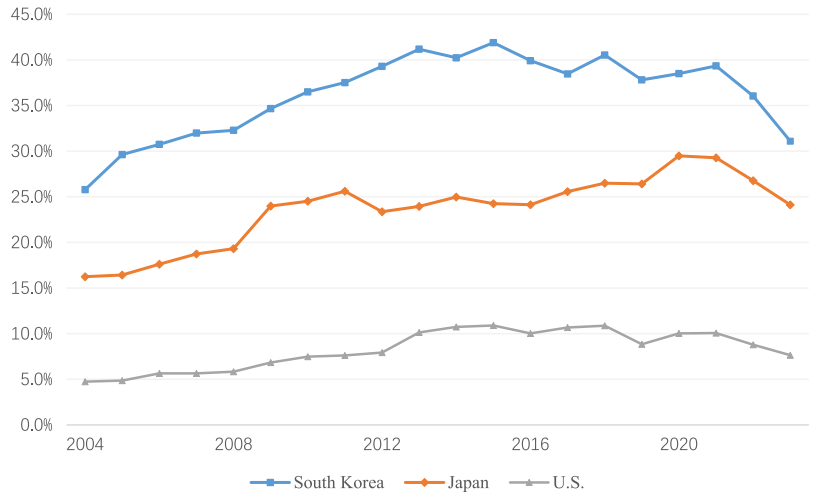

Fig. 3 The share of China in South Korea, Japan, and the United States' strategic industries exports. Source: Author's compilation using data from the Trade Map, released by the International Trade Centre, https://www.intracen.org/resources/data-and-analysis/trade-statistics

from the three countries mentioned above stood at about 146 billion US dollars, and the import of HS84-related products was about 70 billion US dollars, a decrease of about 40 billion US dollars and 18 billion US dollars respectively from the peak in 2021. In addition, it should be noted that the largest import source of electrical machinery is South Korea, with nearly 90 billion US dollars, and the largest import source of nuclear reactors is Japan, with about 34 billion US dollars. In the past two years, imports of electrical machinery from South Korea have decreased by $21 billion, from Japan by $10 billion, and from the United States by $8 billion.

5 Some concluding remarks

In the past, what people saw in East Asia was a "separation of politics and economics", where the economy appeared to function independently of political influences, and the relationship between China and the United States would not affect the economic relations of countries in the region. Therefore, after the 2008 Financial Crisis, a popular term for summarizing the order in East Asia was the so-called "dual structure" of "relying on China economically and the United States for security". However, in recent years, there have been significant changes in the economic and security relations between South Korea, Japan, and China. On the one hand, the political and economic relations between the United States, Japan, and South Korea are closer, and the trilateral relations between the United States, Japan, and South Korea have made great progress; On the other hand, China's political and economic relations with Japan and South Korea are distant, with declining trade and political apathy. What factors have caused the separation of political and economic relations among Northeast Asian countries? This article attempts to integrate changes in economic relations with changes in security relations for discussion.

The article ultimately arrives at two basic conclusions. Firstly, the changes in security relations among China, Japan, and South Korea predate economic and trade relations and have had a significant impact on these relations. South Korea's increase in military spending is mainly aimed at addressing the challenges posed by the situation on the Korean Peninsula, while Japan is more blatantly prioritizing the response to the "China threat". Due to risk prevention considerations, major Japanese and Korean enterprises are unwilling to increase new investments in China and have transferred some production capacity to Southeast Asia and other regions. Driven by the shift in corporate investment, trade relations have also undergone significant changes. Secondly, when Japan and South Korea distance themselves from China, they tend to approach the United States. Therefore, unlike previous studies that focused on discussing domestic factors in Japan and South Korea, this article believes that the changes in Sino-US relations are an important factor in Japan and South Korea's estrangement from China. Moreover, this separation or decoupling is the result of the strategic design of the three countries, and can therefore be attributed to an offensive decoupling. According to the logic of offensive decoupling, industries that are more closely related to power and competitiveness are more likely to decouple. China has strategic industries that surpass the United States in terms of technological advancement. As a result, these industries are the ones most likely to face reductions in trade

with China. The empirical analysis of trade between Japan, South Korea, and China in strategic industries presented in this article has drawn several inferences.

Currently, many countries face the challenge of navigating the intensified strategic competition between China and the United States while avoiding taking sides. The intensification of the great power game has led to a logic of security being higher than that of development. The logic that the economic and trade relations between South Korea and Japan change with changes in security relations indicates that in an era of increasing uncertainty, the negative impact of security factors on the economic and trade is very evident. Under the coercion of the United States, Japan and South Korea will further submit to the US's strategy of containing and suppressing China, adding to a continued distancing of their economic and trade relations with China. The so-called "dual structure" in Northeast Asia is approaching its end. The analysis in this article also indicates that the United States has not only relied on security measures to win over Japan and South Korea, but economic factors have also played a role. At the same time, we should also recognize that the extent to which security factors can be released depends not only on the determination and pressure exerted by the United States on Japan and South Korea, but also on the extent to which China's diplomatic strategy can be utilized. If the United States eases this pressure due to domestic political and economic reasons, or if China reaches a new consensus with Japan and South Korea, then this decoupling trend may also slow down. And this is precisely the distinctive nature of the security relationship, as evidenced by the changes in Sino US relations in the 1970s.

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Declarations

Conflict of interest The author declares that there is no competing interest regarding the publication of this article.

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