Industry

Which economies are to benefit from China’s industry relocation?

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Multinational firms seek supply chain diversification away from China?

In the aftermath of the Covid-19 pandemic, the trend of industry relocation away from China is gaining momentum, at least in certain sectors. News media reported that 60% of Samsung mobile phones are made in Vietnam nowadays while Apple has moved part of latest iPhones production to India. Many other multinational firms also announced their high-profile plans to shift part of their production from China to somewhere else. It is broadly consistent with our predictions made at the early stage of pandemic. (China de-sinicization of global value chain after Covid-19)

A confluence of factors contribute to the accelerating relocation of the industries away from China. First, trade tensions between the United States and China showed no signs of easing even during the pandemic. On the contrary, the largest two economies in the world have expanded their confrontations to more fronts, including high-tech, finance and geopolitics etc. Many multinational firms believe that their operations in China might be subject to high sanction risks imposed by the US in future. Second, the bottlenecks and supply shortages emerged in almost all the advanced countries during the pandemic have prompted both the governments and firms to reassess their supply chain safety, in particular for the ones with a greater reliance on China. Moreover, China’s de factor nationwide lockdowns in the second half of 2023 reinforced some multinational firms’ determinations to diversify their supply chain rather than put all the eggs in China’s basket. Last but not least, China’s business environment deteriorated significantly during the pandemic. On top of strict human mobility restrictions, China authorities bluntly clamped down several sectors in 2021, including real estate, private education, online gaming, Fintech etc. (Understanding recent hot topics of Chinese economy) The so-called “regulatory storm” caused many international investors to question whether China is still a good place to do business.

It is worth noting that the materialization of industry relocation doesn’t mean that China is going to be stripped of its status of the world’s factory anytime soon. Given its sizable domestic market and the advantage of industrial clusters, China is expected to continue to be an important player along the global supply chain. Moreover, China’s authorities have already started to fine-tune their policy and regulatory framework, seeking to retain the industries as possible and even attract additional investment from abroad. That being said, the relocation process of global supply chain could last for a much longer time than many people expected.

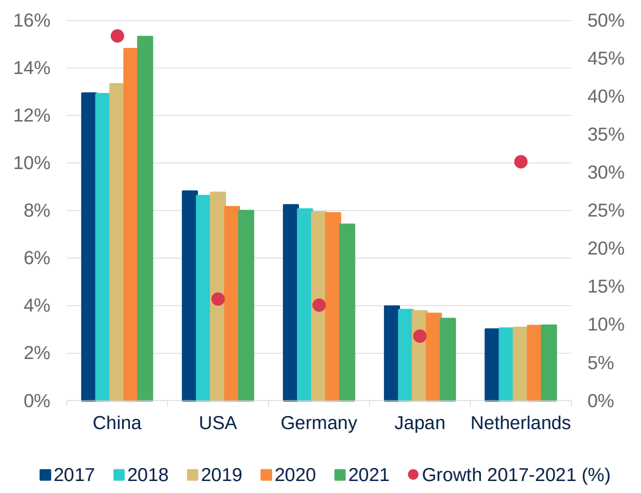
This note aims to deepen our understanding of the ongoing industry relocation trend. By analyzing China’s trade patterns through the lens of the global supply chain, the note attempts to identify the potential winners who are most likely to benefit from this industry relocation trend.

China’s trade appeared resilient due to its “world factory” status

China’s international trade gained market share during the pandemic despite the country imposing strict “Zero Covid” policy over the same period. Moreover, for the top five countries with the largest trade volume, only China and Netherlands managed to grow their market share during the period of 2017-2021. (Figure 1) The country’s excellent trade performance is largely attributable to its position as the world’s manufacturing powerhouse. When the rest of the world suffered serious production disruptions during the pandemic, Chinese factories were humming day and night to meet their export orders.

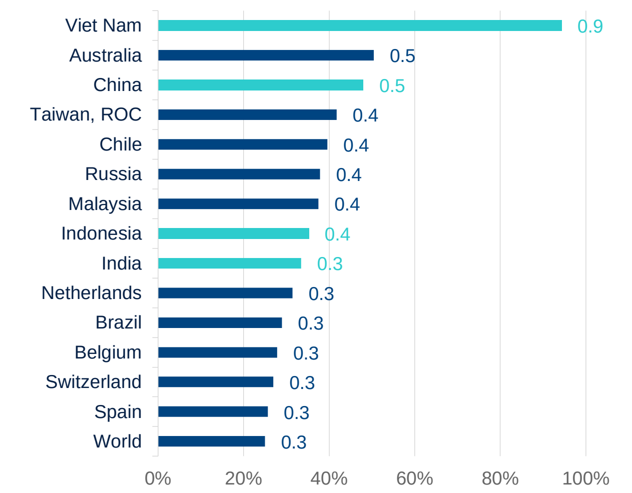
A few of Asian economies also outperformed in their export sectors over the past 5 years. (Figure 2) Indonesia and Vietnam managed to grow their exports cumulatively by more than 50% during 2018-2022, outpacing China’s export growth of 44.5%. Taiwan, Indian and Malaysia also registered an export growth rate of around 40% over the same period. Overall, among the 14 economies in the world with fastest export growth during 2018-2022, six are Asian economies, in comparison to five from Europe and two from Latin America. Moreover, four out of the top five are from Asia, including the No.1 and No.2.

Figure 1. **CHINA’S TRADE GAINING MOMENTUM EVEN UNDER “ZERO COVID” POLICIES**



China’s exports global share by sector (%).
Source: BBVA Research based on data from International Trade Centre

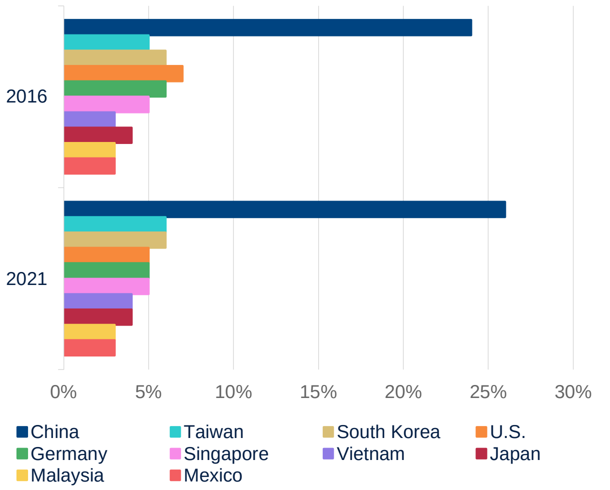
Figure 2. **ASIAN COUNTRIES’ EXPORTS ARE GROWING ABOVE THE WORLD AVERAGE**



Exports growth (%).
Source: BBVA Research based on data from MDS TransModal

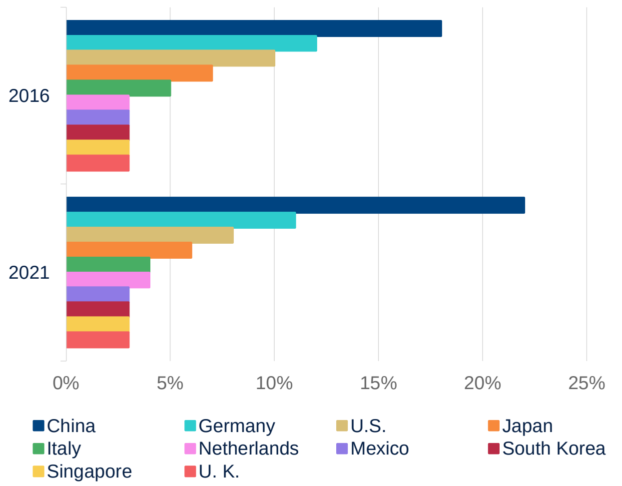
The outstanding performance of China’s exports specially concentrates in a number of globally traded sectors, including electrical equipment, machinery, vehicles and pharmaceutical products. In particular, China’s market share of electrical equipment and machinery have an almost unchallengeable advantage over its competitors, namely the US, Germany, Japan, Mexico and a few other emerging Asian economies. (Figure 3 & 4).

Figure 3. **ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION** (HS 85)



Global export share HS 85 (%).
Source: BBVA Research based on data from International Trade Centre

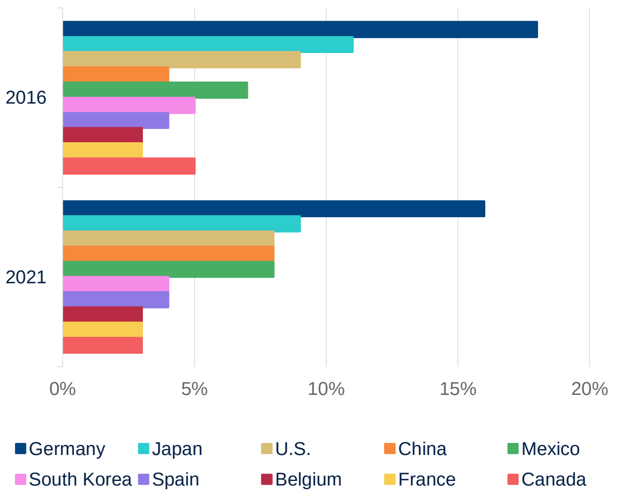
Figure 4. **MACHINERY, MECHANICAL APPLIANCES, NUCLEAR REACTORS, BOILERS; PARTS THEREOF** (HS 84)



Global export share HS 84 (%).
Source: BBVA Research based on data from International Trade Centre

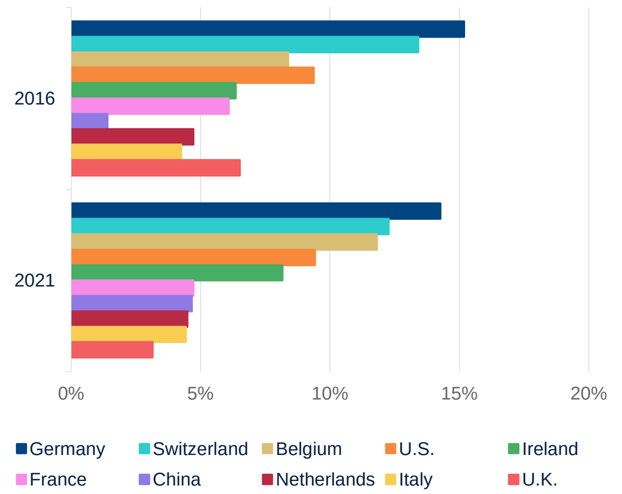
In the areas of vehicle and pharmaceuticals, China is catching up with other important exporters at a fast pace. Comparing 2016 with 2021, China almost doubled its global market share of vehicles exports. (Figure 5) China also managed to significantly expand its market share of pharmaceutical products between 2016 and 2021, although its gap with advanced countries remains large.

Figure 5. **VEHICLES OTHER THAN RAILWAY OR TRAMWAY ROLLING STOCK, AND PARTS AND ACCESSORIES THEREOF** (HS 87)



Global export share HS 87 (%).
Source: BBVA Research based on data from International Trade Centre

Figure 6. **PHARMACEUTICAL PRODUCTS** (HS 30)



Global export share HS 30 (%).
Source: BBVA Research based on data from International Trade Centre

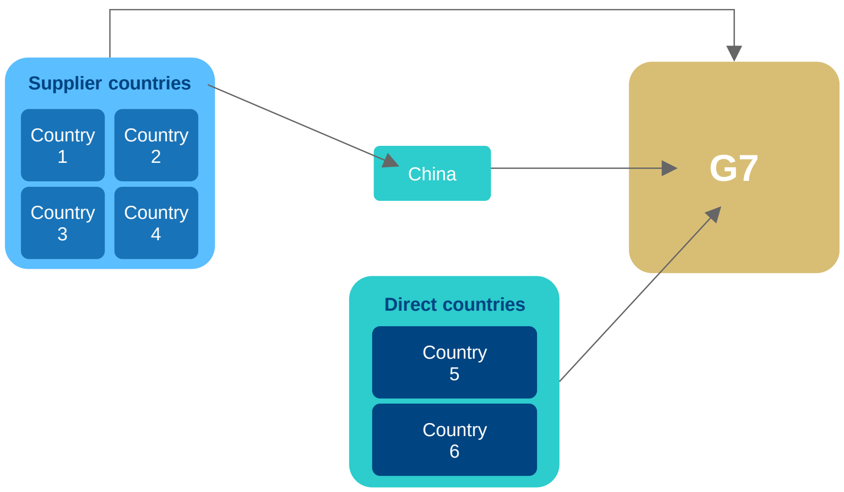
Two channels to grab market share from China

The ongoing trend of industry relocation will definitely shift part of manufacturing production away from China and thereby shrink the market share of China's exports. This could be achieved through two channels. (Figure 7)

First, some economies that already conducted head-to-head competition with China in certain sectors are expected to expand their market share of global trade. For example, both China and Malaysia are now exporting TV sets to the US. After the US imposed high tariffs on China's exports, the TV sets produced in Malaysia enjoy price advantages over the ones made in China. As a consequence, Malaysia is able to increase their exports of TV sets to the US at the cost of China's market share. We call this channel as "direct competition channel".

Second, the economies sharing supply chains with China might benefit from the industry relocation as well. Indeed, the multinational firms prefer to move away their manufacturing capacity from China to the economies on the same supply chain, so as to fully take advantage of industry clustering. Multinational firms' decision will also prompt their Chinese suppliers to choose the same place for investment destination. For the recipient economies, it will bring the opportunities for them to climb up the supply chain and grab China's market share in the global trade. In sum, we call it "supply chain channel".

Figure 7. **INDUSTRY RELOCATION MIGHT BE DONE TO TERRITORIES THAT STAND OUT FOR BEING CHINA'S DIRECT COMPETITORS OR SUPPLIERS**



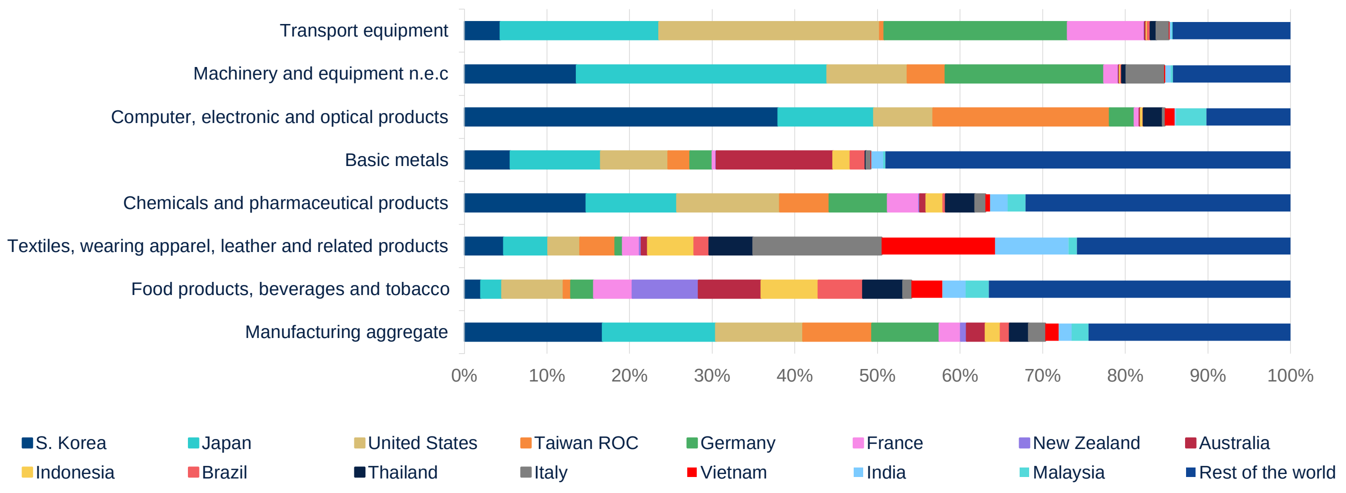
Value added to gross exports from ASEAN to China plus from China to Asean, as percentage of GDP (%).
Source: BBVA Research

What's behind the "Supply Chain Channel"?

The "supply chain channel" merits in-depth analysis from the perspective of cross-country input-output table. Fortunately, the OECD's Trade in Value Added (TiVA) database provides relevant information. With the information of TiVA database, we can calculate the adding-value contribution of different countries to China's gross exports. (Figure 8).

The figure shows that South Korea, Japan, the U.S. and Germany are the most visible economies along several China-centric supply chains. At the same time, some Asian economies also have a significant presence of the supply chains, including Taiwan, Indonesia and India. In particular, Taiwan has a strong influence on the supply chain through its technology industries. It not only contributes to the machinery and computer sectors but also the ones of chemicals and textiles. India's presence stands out in chemicals and pharmaceuticals, textiles and food products manufacturing while Indonesia's largest contribution concentrates on the textile and food manufacturing sectors. Malaysia makes a noteworthy contribution to the computer and electronic sector while Vietnam is very important in the supply chain of textile sector.

Figure 8. **ADDING-VALUE CONTRIBUTION TO CHINA'S GROSS EXPORTS**



Domestic value added content of gross exports of China, share (%), 2018.
Source: BBVA Research based on data from TiVA by OECD

We then focus on China's exports to G7 countries. We find that Asian economies account for a large share in terms of their adding-value contribution to China's shipments to the G7 countries, especially after excluding a few commodity exporters including Australia, Saudi Arabia and Russia. (Table 1)

From above analysis, we draw the conclusion that Asian economies are likely to become the group of beneficiaries of China's industry relocation given that they have tightly integrated themselves into many China-centric supply chains.

Table 1. **Asian countries plus Brazil and Chile stand out in value added to China's gross exports to G7**

Sector / Ranking	1	2	3	4	5	6	7	8
Transport equipment	S. Korea	Taiwan	Brazil	Chile	Indonesia	Singapore	Malaysia	India
Machinery and equipment n.e.c	S. Korea	Taiwan	Brazil	Chile	Indonesia	Singapore	Malaysia	India
Computer & electronic	S. Korea	Taiwan	Malaysia	Singapore	Thailand	Philippines	Indonesia	Chile
Basic & fabricated metals	S. Korea	Brazil	Chile	Taiwan	South Africa	Indonesia	Peru	Kazakhstan
Chemicals & pharmaceuticals	S. Korea	Brazil	Indonesia	Taiwan	Malaysia	Singapore	India	Thailand
Textiles	S. Korea	Brazil	India	Taiwan	Vietnam	Indonesia	Thailand	Singapore
Manufacturing n.e.c	S. Korea	Brazil	Taiwan	Indonesia	India	Thailand	Vietnam	Chile

S. Korea, Taiwan, Brazil, Chile, Indonesia, Singapore, Malaysia, India, Thailand, Philippines, South Africa, Kazakhstan, Vietnam, Peru

Added value content to China's exports to G7, rank
Source: BBVA Research based on data from TiVA by OECD

Where will multinational firms relocate to?

Among the multinational firms, the so called "china plus one" strategy starts to gain ground when they set up their supply chains. This diversification strategy will keep the existing manufacturing capacity in China intact while expand their investment in other economies.

We summarize the potential destinations of multinational firms' investment away from China. (Table 2) In particular, we list China's direct export competitors to G7 countries in four important sectors, namely electronics & computers, machinery, transport equipment and chemicals & pharmaceuticals. Through the "direct competition channel", multinational firms might expand their operation in these economies. Meanwhile, we also list China's important partners along the existing supply chains of exports for G7 economies. As analyzed in the previous section, they are likely to climb up the supply chain and grab market share from China as well.

As the table shows, Asian economies, highlighted in red, account for a large share in the potential destination list, in particular through the "supply chain channel". Brazil and Chile also play important roles along the supply chains, with relatively lower ranking.

Comparatively, many European economies might benefit from the “direct competition channel”. A few eastern European countries might benefit more due to their relatively lower labor costs. Moreover, Mexico stands out as one potential alternative supplier to G7 countries given its high ranking in the sectors of electronics, machinery and transport.

Table 2. **Where will companies relocate to?**

Through “Direct Competition Channel”				Through “Supply Chain Channel”			
Electronic	**Machinery**	**Transport**	**Chemicals**	**Electronic**	**Machinery**	**Transport**	**Chemicals**
Taiwan, ROC	Netherlands	Mexico	Switzerland	S. Korea	S. Korea	S. Korea	S. Korea
S. Korea	Mexico	S. Korea	Belgium	Taiwan, ROC	Taiwan, ROC	Taiwan, ROC	Brazil
Singapore	S. Korea	Spain	Ireland	Malaysia	Brazil	Brazil	Indonesia
Vietnam	Singapore	Belgium	Netherlands	Singapore	Chile	Chile	Taiwan, ROC
Malaysia	Taiwan, ROC	Czech Republic	Spain	Thailand	Indonesia	Indonesia	Malaysia
Mexico	Thailand	Slovakia	India	Philippines	Singapore	Singapore	Singapore
Netherlands	Czech Republic	Thailand	Denmark	Indonesia	Malaysia	Malaysia	India
Czech Republic	Poland	Poland	Austria	Chile	India	India	Thailand

Source: BBVA Research

Appendix 1: OECD manufacturing sectors classification

Figure 8. **D10T33: MANUFACTURING**

<table>
<tr><td colspan="3">D10T12: Food products, beverages and tobacco</td></tr>
<tr><td colspan="3">D13T15: Textiles, wearing apparel, leather and related products</td></tr>
<tr><td rowspan="2">D16T18: Wood and paper products and printing</td><td colspan="2">D16: Wood and products of wood and cork</td></tr>
<tr><td colspan="2">D17T18: Paper products and printing</td></tr>
<tr><td rowspan="6">D19T23: Chemicals and non-metallic mineral products</td><td colspan="2">D19: Coke and refined petroleum products</td></tr>
<tr><td colspan="2">D20T21: Chemicals and pharmaceutical products</td></tr>
<tr><td rowspan="2">D20T21: Chemicals and pharmaceutical products</td><td>D20: Chemical and chemical products</td></tr>
<tr><td>D21: Pharmaceuticals, medicinal chemical and botanical products</td></tr>
<tr><td colspan="2">D22: Rubber and plastics products</td></tr>
<tr><td colspan="2">D23: Other non-metallic mineral products</td></tr>
<tr><td rowspan="2">D24T25: Basic metals and fabricated metal products</td><td colspan="2">D24: Basic metals</td></tr>
<tr><td colspan="2">D25: Fabricated metal products</td></tr>
<tr><td rowspan="2">D26T27: Computer, electronic and electrical equipment</td><td colspan="2">D26: Computer, electronic and optical products</td></tr>
<tr><td colspan="2">D27: Electrical equipment</td></tr>
<tr><td colspan="3">D28: Machinery and equipment n.e.c</td></tr>
<tr><td rowspan="2">D29T30: Transport equipment</td><td colspan="2">D29: Motor vehicles, trailers and semi-trailers</td></tr>
<tr><td colspan="2">D30: Other transport equipment</td></tr>
<tr><td colspan="3">D31T33: Manufacturing nec; repair and installation of machinery and equipment</td></tr>
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