JULY 2020

RE-SHORING MANUFACTURING ACTIVITIES TO JAPAN: WHAT IS THE CURRENT TREND?





PREPARED WITH THE HELP OF

FRENCH EMBASSY IN JAPAN, AIR LIQUIDE, BNP PARIBAS, EY, ORANGE JAPAN AND VALEO JAPAN

COVID-19 BRINGS RE-SHORING DEBATES BACK TO THE FORE

In the midst of the COVID-19 pandemic, Prime Minister Shinzo Abe proposed to build an economy less dependent on a single country - China - so that Japan can better protect itself from disruptions in supply chains. The announcement coincided with the postponement of a state visit by President Xi Jinping to Japan. Shinzo Abe, who chairs the Council on Investments for the Future, said he wanted production sites for high value-added goods to return to Japan and for the rest of the production base to be diversified to other countries, like ASEAN members. He asked to go beyond the traditional "China plus one" strategy, in which companies added one plant outside China to diversify their production. Shinzo Abe indirectly encouraged a withdrawal from China for certain activities. The Prime Minister made these remarks as disruptions hit the supply of automobile parts and other products for which Japan depended on China, which seriously affected the activities of Japanese companies.

The destabilization of supply chains has brought to the fore a long-standing debate in Tokyo over the withdrawal from China of manufacturing activities. With the COVID-19 crisis making the issues of economic security clearer than ever, the Japanese government has started to act. In April, it **included a fund of 248.6 billion yen (\$ 2.33 billion) in its \$ 1000 billion economic emergency plan to support the relocation of manufacturing activities to Japan**, for an amount covering up to two third of the relocation costs. Although this fund represents less than 1% of the 108 trillion-yen emergency plan, it put China on its guard. Beijing not only urged the Japanese authorities to explain the meaning of this policy, but also asked Japanese companies established in China on their intention to leave. However, it seems that this \$ 2.33 billion subsidy will not be enough to drive significant change.

Cabinet chief secretary Yoshihide Suga stressed the need for a greater economic autonomy: "In terms of masks, for example, 70% to 80% are produced in China. We must avoid being overly dependent on certain countries for products or materials and we have to repatriate production sites for the goods necessary for daily life."

SOME DETAILS ON SUBSIDY MEASURES FOR THE RELOCATION OF INDUSTRIAL ACTIVITIES TO JAPAN

The vulnerability of Japan's supply chains - including masks and other sanitary products - was exposed by the COVID-19 pandemic. Japan currently supports a multi-year effort to relocate and diversify the production sites on which the domestic industry depends.

The Japanese government encourages the repatriation of production bases for products and materials that are highly dependent on a country. **The subsidy rates for relocation projects are two thirds for SMEs and half for large companies**. These rates reach three quarters and two thirds for the following productions: hydroalcoholic gels, masks, protective clothing, artificial respirators.

The plan also aims to promote the development of national production bases for pharmaceuticals for which Japan is highly dependent on foreign countries (subsidy rate of 50%). In addition, for the products and materials for which Japan relies heavily on a single country, the Japanese government supports the diversification of production facilities in ASEAN countries. The subsidy rate is two thirds for SMEs and half for large companies.

Japan's National Security Council created a dedicated economic team in April. A senior official from the Ministry of the Economy, Trade and Industry has been appointed within the council leadership, giving the ministry representation in a body previously dominated by the ministries of Foreign Affairs and Defence. The new team is responsible for **preparing a basic strategy for economic security before the end of the year**. The council plans to designate pharmaceuticals and medical devices as strategic assets drawing lessons from the mask shortage - and to include measures to promote domestic production and Japanese suppliers.

However, if the government's policy is to relocate production bases to Japan and avoid depending on a single country by diversifying production sites, not all Japanese companies are preparing for a withdrawal from China. It is not about cutting all supply chains between Japan and China, but rather of re-shoring some production bases. In other words, the supply chains between Japan and China will remain almost intact and Japan does not encourage full decoupling from China. The desire for a return to national production and diversification of manufacturing sites for products dependent on China is not a new phenomenon. Although Beijing may view this as an aggressive move, China is still Japan's biggest trading partner. For instance, when Chinese factories closed in February to minimise the spread of the disease, exports to Japan fell by almost 50%. This disruption in supply chains has a significant impact on Japanese industry and leads the authorities to try to minimise Japan's dependence on China. A survey by Tokyo Shoko Research in February found that 37% of the more than 2,600 companies that responded diversified their suppliers to countries other than China during the COVID-19 crisis.

JAPANESE RELOCATION STRATEGIES DURING THE HEISEI ERA (1989-2019)

The Heisei era began with the euphoria of the Japanese economic bubble and a soaring amount of FDI. When the bubble burst, companies pulled out of many investments. Yen started appreciating in 1991, which weakened the competitiveness of the Japanese economy, accelerating relocations to China and Southeast Asia.

In 1990, Japanese companies had 7,544 overseas units. This was multiplied by more than 3 to reach 24,959 in 2016. More specifically, the number of production units was multiplied by 3.4 (going from 3243 to 10919) and the number of service units by 3.5 (from 3850 to 13367).

Until the middle of the Heisei era, the United States was the main country for Japanese companies overseas units but offshoring gradually increased in the Newly Industrialised Countries (NICs), ASEAN and emerging countries in general, such as India and Mexico. One of the main factors behind this evolution was the strong appreciation of the yen. Japanese companies sought to offset this decline in competitiveness by offshoring plants to emerging countries in Asia, aiming at reducing staff costs. They benefited from preferential investment policies for foreign companies and from FDI deregulation implemented by emerging countries. These companies also sought to prevent potential US-Japanese trade friction.

These policies strengthened the attractiveness of emerging countries and the manufacturing and service industries have further intensified their outsourcing strategies. **Japan's offshore production ratio rose from 5.7% in 1989 to 23.8% in 2016**. More than a simple cost control policy, these strategies have been encouraged by the growth of local markets.

Deepening economic integration in East Asia has also contributed to intraregional trade and investment liberalisation, illustrated by the gradual reduction of tariffs in ASEAN (from 11% in 1990 to 0% in 2018).

Similarly, the conclusion of free trade and economic partnership agreements has encouraged a greater Japanese presence abroad (Japan is currently part of 12 different trade agreements).

As a result of all these relocations, the structure of Japan's balance of payments has changed dramatically. The strong trade surplus of the early Heisei years decreased while the revenues received from abroad increased and now represent considerable amounts (in 2017, the Japanese trade surplus amounted to 44.4 billion USD and dividends and other income from overseas operations amounted to \$177 billion).

Nevertheless, although Japan has been exposed to offshoring waves, many goods are still produced in the country and many companies keep a strategy of producing where the needs are. Some also want to keep the technology secret. Consequently, **many high value-added products are still being manufactured in Japan**, as semiconductors or robots, for example.

Some Japanese companies manufacturing goods in China for export or for the Japanese market may consider re-shoring and subsidies from the government will certainly boost the move. Conversely, companies that produce for the Chinese domestic market should keep their Chinese plants.

FOCUS ON SUPPLY CHAINS IN THE JAPANESE AUTOMOTIVE SECTOR

In the automotive sector, Nissan decided to suspend the activity of its assembly plant in Kyushu in February because it had become difficult to obtain parts in China due to the COVID-19 pandemic.

The volume of auto parts exports to China is more than twice the volume of imports, but imports are steadily increasing. In the past, auto parts were mainly imported from the United States. Nowadays, parts imported from China represent about a third of the total. In addition, imports account for 20% to 30% of all auto parts assembled in Japan. Therefore, **dependence on China must be put into perspective. The real problem is to know which parts depend on China**. Many parts need certification, such as airbags and brakes. Switching suppliers can take time and can be difficult as certification is necessary. According to some estimates, more than half of the Chinese-made auto parts used in Japan require certification.

The automakers have built vertically integrated supply chains not only in Japan, but also in Southeast Asia (Thailand, Vietnam) and in the whole world. Japanese car manufacturers first entered the Chinese market through the production of spare parts, which gradually enabled them to launch local producers and create a pyramid-shaped supply chain in Guangzhou or Wuhan, for instance.

In Wuhan, the automotive sector concentrates more than 500 local and foreign companies. 70 of the 159 Japanese companies present are suppliers and amount around half of the total. **The technological capabilities of Chinese factories have improved, and it is now possible to produce high quality parts at a low cost**. As a result, the local auto parts supply rate in Wuhan reaches 90%.

We can think that the problems encountered by Nissan with its Kyushu factory are the consequence of cost-cutting reforms. Indeed, the import of parts from China and South Korea is the result of a policy of massive cost reduction. We can judge that using only one Chinese company is a good measure of efficiency, even for important parts. The Kyushu factory benefits from a short transportation time from China and operates on a just-in-time basis, with as little inventory as possible. Consequently, it was one of the first industrial sites impacted by the supply chains disruption. Other Japanese automakers have built similar vertically integrated supply chains in China, in Guangzhou or Wuhan. As a result, many companies are impacted by the same phenomenon. Japanese automakers have a strong risk experience, because of the recurrence of earthquakes in Japan: Niigata in 2007, Tohoku in 2011 and Kumamoto in 2016. Therefore, they took costlier risk management measures like collaboration with many suppliers and a multiplication of factories and sources of supply. Even though such measures were taken, the Japanese automotive sector is severely impacted by COVID-19.



WILL THIS RELOCATION POLICY WORK FOR JAPAN?

We can try to anticipate the success of this Japanese policy by analysing the measures taken by the Trump administration to relocate several industrial activities based in China. The American policy of repatriation of supply chains from China has had modest results. The reduction in corporate tax rates decided in 2017 aimed to encourage American multinationals to repatriate their accumulated profits abroad and brought \$ 500 billion back to the country in 2018. Nonetheless, much of this money was used for share buybacks and increased dividend payments rather than for investments in new supply chains in the United States.

While it seems that transnational corporations have long pondered the political, institutional, legal and regulatory risks associated with China's political economy, **these questions are more than offset by short-term benefits**. Even at the height of US-China economic tensions, the amount of FDI in China has continued to increase by about 3% per year, which is comparable to annual increases in the previous five years. In late 2019, a survey of U.S. companies based in China revealed that 87% of them had not outsourced supply chains outside of China and had no immediate plans to do so. The reasons for staying in China are quite simple. It is often compulsory to invest in Chinese territory to access its huge internal market.

From the Japanese point of view, we can think that the policy and the calendar of the Abe government will be more fruitful and fortuitous.

First, geography is better suited to Japan than to the United States or the European Union. East Asia has become the most integrated area for manufactured goods in the world. This integration is particularly relevant in the IT / electronics / electrical sectors, which account for up to half of the total value of exports from Japan, South Korea and the ASEAN economies. It is easier for a Japanese company to move supply chains out of China and return to Japan (or Southeast Asia) than for an American company to move its activities back to the United States.

In addition, rapid technological advances in manufacturing-related technologies such as robotics, automation, artificial intelligence and 3D printing - all technologies in which Japanese companies have invested heavily - reduce the need and the cost of labour inputs as well as the space required for manufacturing. This suits the skilled but shrinking Japanese working population and the limited availability of land on which to base operations. Moreover, with 303 robots for 10,000 workers, Japan ranks fourth in the world for robot density behind South Korea (631), Singapore (488) and Germany (309). With 97 robots for 10,000 workers, China ranks 23rd. **Japanese companies can invest in advanced manufacturing capabilities**.

China can still compel Japanese companies to base operations on Chinese territory to access its huge market. But a diversification of production sites outside of China - in ASEAN for example - is possible for Japanese companies that target other markets (especially the Japanese one).

The COVID-19 pandemic has severely disrupted regional and global supply chains. Combined with a slowdown in demand, which removes the urgency to produce at full capacity, the time is right to reassess and reorganise supply chains.



The political environment is also favourable to consider such changes in the supply chain. The post-COVID-19 world will certainly experience tensions between China and the United States. Naturally, Japan will always have a foothold in China. **But Japanese companies that depend on Chinese supply chains could be the target of US economic sanctions and restrictions**. Some will probably consider covering themselves by diversifying before that happens.

From a geopolitical point of view, the Sino-American trade war will probably continue in the 2020s. The innovations developed in the second half of the 2010s gradually replace the workforce with machines Al. Rather than shifting production and to developing countries with cheap labour costs, companies in advanced countries begin to set up fully automated factories in their home country. While the second wave of globalisation led to the relocation of production to emerging economies, the third wave may see the return of production to advanced countries through fully automated manufacturing. The China-US trade war may speed up this process. Even in the case of a China-US trade deal, transnational companies will still face great uncertainties and will be likely to ponder production continuation in China. The question is: how should companies in advanced countries - especially with Japanese companies - react if the trade conflict between the two largest economies in the world continues to drag on? The first thing that probably comes to mind is a shift in production to emerging economies other than China. But Japanese companies already began to locate some labourintensive production activities in Southeast Asian countries in the late 2000s, when wages in China began to rise. Korean and Taiwanese companies did the same, which led to higher wages in Southeast Asia. The transfer of production activities to this area has already slowed down. New innovations developed



since the mid-2000s can trigger a third wave of globalisation. This new model makes full use of robotics and artificial intelligence, and labour could become useless in production activities such as assembly, as machines could take the place of human labour. As a result, some companies will prefer to establish fully automated factories in their home country rather than shift production to developing countries where labour costs are still cheap. With the decline in labour-intensive production activities, it will not always be necessary to locate in developing countries with low labour costs. Furthermore, many companies will set innovation and production activities as close as possible to target markets.

Sony offshored 50% of its production to China and Southeast Asia during the 1990's because of the yen appreciation. Moreover, the strategy was to have manufacturing capacities close to demand. In 2019, Sony announced the relocation of its Beijing smartphone production factory to its Thai factory to halve costs related amid soaring labour cost in China.

Sony announced plans to build a 100 billion-yen (\$918 million) factory in Japan by 2021, dedicated to the image sensor business, (smartphone cameras mainly) which represents 15% of the company's profits. Until now, the company increased output by expanding production lines in existing plants and by improving efficiency, but it decided a new factory was necessary to capture the expected demand growth. It is the first time in 12 years that Sony builds an entirely new plant.

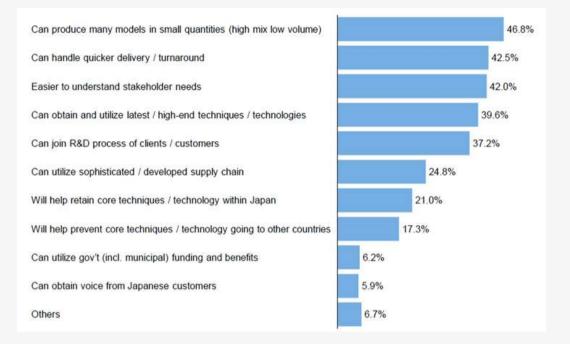
NEC announced the reorganisation of its production in Japan as part of the mid-term 2020 plan in 2018. Its "Global One Factory" strategy aims to standardise production processes and systems for all factories worldwide by making a full use of IoT and AI.

To conduct these changes, NEC closed two Japanese factories in March 2017 and merged the activity with a new entity gathering 4 production subsidiaries established in 2014. NEC also built a new factory in Thailand in 2017 to consolidate operations from two nearby plants, aiming to double sales of telephone exchanges and automotive electronics by 2020.

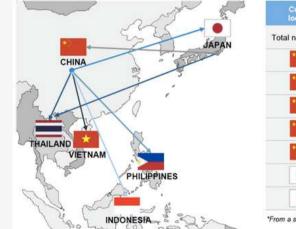
Panasonic has a special relationship with China that dates back to the 1970's and 1980's, when the company opened the country's first foreign-affiliated plant since World War II. Panasonic's Chinese production is well set-up and the company plans to build its first consumer electronics plant in China in 16 years, investing 4.5 billion yen (\$41 million). It is scheduled to begin production in 2021. Panasonic also operates production plants in South East Asia and India (its fifth Indian factory is supposed to open in October 2021).

Panasonic is now in the midst of restructuring efforts, with the goal of cutting costs by about 100 billion yen (\$930 million) by the fiscal year ending March 2022. Panasonic plans to shut down a large appliance factory outside Bangkok and consolidate production to a larger facility in Vietnam for greater efficiency, in May 2020.

Advantages of re-shoring seen by Japanese companies (Sources: JETRO, EY ; sample size = 666)



Major restructuring patterns of production base (2020 and beyond) (Sources: JETRO, EY)



Current location	Future location plans (post 2020)	Number of company cases	% of total cases
Total number of restructuring cases		159	100%
-	→ ★	39	24.5%
- 11 -	→	23	14.5%
** -		11	6.9%
**		6	3.8%
**	→ —	6	3.8%
	→ *	8	5.0%
	→ =	6	3.8%

*From a survey! conducted during Nov-Dec 2019 and published in February 2020 by JETRO



WHAT ABOUT FRENCH COMPANIES ESTABLISHED IN JAPAN? THE EXAMPLE OF AIR LIQUIDE.

By nature, industrial and medical gases do not travel very far, as they must be pressurised in steel containers or transported in liquid form at up to -280°C. Proximity to customers is essential to **Air Liquide**'s business model in order to provide cost effective and timely supply. Air Liquide only offshores activities related to expensive and scarce molecules that are only available in natural sources (like helium for example).

In Japan, Air Liquide has 77 sites producing, filling and delivering to customers. Thanks to this strategy, the company does not face any supply outage during the COVID-19 pandemic as it relies very little on foreign supply chains. Air Liquide also invests in R&D and innovation in Japan to develop gas solutions for customers. It is important to mention that Japanese regulations make it less effective to produce or assemble outside of Japan.

As a whole, the COVID-19 crisis has proven the solidity of this proximity mode

Some global companies may therefore adopt a "local production for local consumption" strategy, notably due to political constraints. This strategy can prove to be interesting because robotics and AI will be able to increase the number of automated factories in each country. Of course, due to an agglomeration problem, these factories will not be built on a large scale in small markets.

Our analysis must be mitigated. Even though there are substantial arguments in favour of bringing production back to Japan, the actual trends in relocation are self-evident. It must be noted that most restructuring patterns are directed towards ASEAN countries (see the map page 10, Vietnam and Thailand account for almost 40% of all relocation decisions). **Even though Japan benefits from the re-shoring of some activities, this trend remains minor** (only 7%).

CONCLUSION: WHAT CAN JAPAN EXPECT FROM CURRENT RELOCATION TRENDS ?

The COVID-19 pandemic bolsters reflection on global value chains in developed countries, and especially in Japan. Such considerations are also spurred by the uncertain commercial and geopolitcal context and the continuous wave of innovation in production processes.

Japan is one of the most involved countries on the topic. The government set up a plan to encourage the relocation of offshore industrial and business units. This policy is a substantial incentive for the resettlement of activities. Nevertheless, the final re-shoring decision is in the hands of companies. Moreover, many elements must be taken into consideration to assess potential outcomes: operational costs and sunk costs, market dynamics, technology and innovation, geopolitics...

We can expect an increase in the number of factories in advanced countries like Japan. Nonetheless, this increase will certainly not be accompanied by a substantial return of industrial jobs, as these new factories will be fully automated. Furthermore, the increase in revenues will probably remain limited to a small group providing ideas and capital, deepening the polarisation of the wage structure. The main cause of income polarisation seems to be innovation, not international trade.

Japan will probably benefit from the re-shoring of some offshore activities that can be automated. Still, this movement shall remain limited and many relocations will rather be directed towards countries like Thailand or Vietnam. Although this economic problematic is now well-rooted in the Japanese political agenda, we can expect a lukewarm outcome to the current trend. It will be compulsory to reassess it when the economic situation will be steadier, in order to evaluate the Japanese relocation policy. This study was written by Maxime Bourrel, intern at Orange Japan Co. Ltd, under the supervision of Jean-Michel Serre, CEO Orange Japan Co. Ltd, President of the Japanese Committee of the French Foreign Trade Advisors.

Special thanks to the French Embassy in Japan, Air Liquide BNP Paribas, EY, Orange Japan and Valeo Japan for their special contribution to the preparation of this document

Sources:

Bloomberg, "Japan to pay firms to leave China, relocate production elsewhere as part of coronavirus stimulus", South China Morning Post, April 9, 2020, <u>https://www.scmp.com/news/asia/east-asia/article/3079126/japanpay-firms-leave-china-relocate-production-elsewhere-part</u>

BNP Paribas, Deep dive Japan - "Japan - How will firms react to trade tensions?", 23rd October 2018

BNP Paribas, Market Economics, Weekly Economic Report, 17th May 2019

Dornbrack (Josh), "Japan announces incentives for companies to move production out of China", Business Leader, April 14, 2020, <u>https://www.businessleader.co.uk/japan-announces-incentives-for-</u> <u>companies-to-move-production-out-of-china/82975/</u>

EY, "Reshoring in Japan: Overview of Japanese companies regarding the localization of their operations", June 4, 2020

Hiraga (Tomikazu), "Offshoring by Japanese Companies during the Heisei Period", Osaka Seikei University, March 7th 2019, <u>https://www.cfiec.jp/en-m/2019/0288-1099/</u>

細川昌彦、「新型コロナで日本を襲うサプライチェーン危機、中国リスクとは?」、日経ビジネス (Nikkei Business) 、 2020 年 2 月 20 日 、 <u>https://business.nikkei.com/atcl/seminar/19/00133/00030/?P=1</u>

Kawashima (Shin), "Is Japan pulling its companies out of China"?", The Diplomat, May, 11, 2020, <u>https://thediplomat.com/2020/05/is-japan-pulling-its-companies-out-of-china/</u>

Lee (John), "Can Japan successfully decouple from China ?", The Diplomat, April 16th 2020? <u>https://thediplomat.com/2020/04/can-japan-successfully-decouple-from-china/</u>

Nakazawa (Katsuji), "Xi fears Japan-led manufacturing exodus from China", Nikkei Asian Review, April 16, 2020, <u>https://asia.nikkei.com/Editor-s-</u> <u>Picks/China-up-close/Xi-fears-Japan-led-manufacturing-exodus-from-China</u>

Shigeta (Shunsuke), "Calls for 'China exit' mount as Japan reviews economic security", Nikkei Asian Review, May 12, 2020, <u>https://asia.nikkei.com/Politics/Inside-Japanese-politics/Calls-for-China-exit-mount-as-Japan-reviews-economic-security</u>

首相官邸 (Kantei)、「新型コロナウイルス感染症緊急経済対策」の変更について、 令和2 年4月 20 日 閣議決定

LES CONSEILLER<mark>S DU COMMERCE</mark> EXTÉRIEUR DE LA FRANCE

UC

JAPON

VISA

Lhealt

大

Junto

オロンパ

3

FA

命机