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The US-China trade war: a trigger for relocating global supply chains out of China

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The escalating US-China trade war under US president Trump has led global firms with a China-centric supply chain to reconsider its configuration. Starting with punitive tariffs in 2018 the conflict now extends to a decoupling of the economic and technological national systems. Diversifying global supply chains out of China is just part of the answer. While a “China + 1” strategy is advisable in some sectors, a full relocation out of China is hard to imagine given the bounty of advantages of China’s industrial clusters and the complex time-consuming and costly process.

The 1990s and early 2000s mark a period of unprecedented global supply chain (GSC) growth, encouraged by the ICT revolution and extensive trade liberalization measures. Accordingly, offshoring to low-cost countries, such as China, became very attractive for western companies.¹ China’s increasing integration in the global economy, encouraged by the country’s WTO accession in 2001, as well as its large pool of low-cost labor boosted China’s rise as a major GSC destination. Today, China is the world’s largest exporter of goods and services. However, recently not only the growth of GSC has stagnated but also China’s dominant position is questioned.² The continuous increase of China’s labor costs within the past few years has dampened the country’s comparative advantage and made it less competitive in relation to other manufacturing destinations.³ What is more, the escalating US-China trade war under President Trump constitutes a substantial threat to China-centric GSC. In 2016, President Trump laid out how he wanted to counter unfair trade practices from China by imposing higher tariffs. What then started in spring 2018 with tariffs on imports of solar panels, washing machines and steel,

ended up in successive rounds of tariffs being imposed in a tit-for-tat game of escalation.⁴ Over time, the scope of the affected product categories was extended and tariffs were raised up to 25%. So far, the US has imposed a 25% tariff on \$250 billion and a 7.5% tariff on \$112 billion worth of Chinese imports.⁵ Firms sourcing from or manufacturing in China and importing from there to the US have to decide if they pass on the extra costs to buyers or if they absorb them.

In a further step, President Trump raised prospects of “decoupling” the US economy from China’s.⁶ Going beyond bilateral trade, this “decoupling” targets financial markets, supply chains and critical inputs, high-tech industries and R&D in general as well as digital platforms and data of US citizens. The “decoupling” ranges from putting Chinese firms on export blacklists (e.g., SMIC, China’s most advanced semiconductor manufacturer), denying Chinese firms access to the US market (e.g., telecom firms ZTE and Huawei), delisting of Chinese firms from US stock exchanges, banning US direct and portfolio investments in Chinese firms (e.g., smartphone firm Xiaomi; state-owned telecom carriers), or decreeing Chinese-owned short video-sharing app TikTok to drop the business with US-American users.⁷ Even the change in the White House in January 2021 to the Biden administration is not expected to lead to a major turnaround in the US’ stance vis-à-vis China. The uncertainty about the future relationship between the US and China forces global firms with operations in China to rethink their GSC.

Surveys among businesses operating in China show that firms have started revising their China-related supply chain configuration already. Various Chambers of Commerce in China, including the one of the United States, the European Union, and Germany have conducted surveys among their member companies operating in China on the impact of the US-China trade conflict. According to the AmCham Supply Chain Survey from autumn 2019, 90% of the responding US firms are affected by the US-China trade dispute.⁸ For 64% of them it is a trigger to diversify their supply base and for 24% to relocate manufacturing or sourcing capacities out of China. The most affected industries are ICT and industrial manufacturing. For instance, 90% of chips in PCs or cell phones are imported to China. Tariffs imposed by the US and China increased costs for 90% of the firms ranging from an increase of 10% (47% of respondents) to up to 39% (16% of respondents). 20% of the interviewed firms had already begun the process of relocating the supply base out of China, another 19% planned it.

The EU Chamber of Commerce in China survey on the effects of the US-China trade war on EU firms in China covered 174 firms.⁹ In September 2019, most of the EU firms (64%) were in a “wait & see” position, 15% delayed investment decisions, 10% changed suppliers and 8%

moved production of impacted goods out of China. However, 10% increased investment in China. The German Business in China – Business Confidence Survey 2019/20 sheds light on the view of German businesses in September 2019.¹⁰ 83% of the surveyed firms felt negatively affected by the US-China trade dispute too. Given the fact that German companies in China mainly produce for the local and Asian markets it comes not as a surprise that only 23% planned or had already taken action to move capacity out of China. Nearly 2/3 of this group built up additional capacity (“China + 1” strategy) while 1/3 shifted its capacity out of China. Rising (labor) costs (71%) was the most important factor for a move out followed by an unfavorable policy environment (33%). Preferred relocation destinations are Southeast Asia (52%), India (25%), Central and Eastern Europe (19%) and Western Europe (17%).

The surveys show that this discussion is not a recent one. Increasing labor costs have dampened China’s attractiveness as an offshoring destination even before the introduction of punitive US-China tariffs in 2018. Actual and planned corporate relocations underline this view. Our following two cases illustrate that multinationals from different industries and countries consider the relocation of a part of their sourcing and production out of China to mitigate the impact of the US-China trade war as a strategic priority.

An extreme case for a company with a China-centric production and supply network is the US-American technology company Apple Inc. Apple fully outsourced its production to contract manufacturers such as Hon Hai Precision Industry Co., also known as Foxconn Technology Group, Pegatron Corp. or Wistron Corp. Even though those main contract manufacturers are headquartered in Taiwan, 90% of Apple’s most popular products are manufactured in mainland China. Foxconn, being Apple’s major partner, has contributed significantly to the development of large-scale Apple manufacturing ecosystems in China. A good example for the magnitude and depth of the cooperation is the so-called “iPhone City” near Zhengzhou, which evolved as Foxconn opened a large iPhone factory in which 100,000 to 300,000 people are employed and up to 500,000 iPhones can be produced per day.¹¹ With the opening of the factory in 2010, also accommodation for up to 400,000 people was built and infrastructure was improved considerably, all in cooperation with the local government. Zhengzhou government built and partly financed the \$600 million manufacturing complex, spent \$1 billion for the construction of housing, lent \$250 million to Foxconn, provided tax holidays, and helped recruit and train workers.¹² The enormous dependence on the China supply base means a huge risk for Apple in an ongoing tariff war and advanced financial and technological decoupling – a risk that goes

beyond rising labor costs and the potential threat of a 25% tariff on iPhones.¹³ Unsurprisingly, Apple asked its major contract manufacturers to examine the costs of relocating between 15% and 30% of its operations out of China. The best-case scenario estimates that Apple would be able to relocate 5-7% of its iPhone production to India within 12 to 18 months.¹⁴ However, the working group also found out that even then Chinese firms would be key suppliers of components and parts.¹⁵ The most promising potential relocation destinations for Apple's contract manufacturers are India, Vietna, Indonesia and Malaysia.¹⁶

Another company responding to the US-China trade war by relocating parts of its production out of China, is the German-based sports goods producer PUMA SE. Prior to the US-China trade war, PUMA produced about half of its goods for the US market in China. With the heating up of the trade dispute and implied risks such as increased import tariffs, PUMA started to move production out of China. The company managed to decrease the share of Chinese goods of the US imports to about 20%.¹⁷ According to Bjørn Gulden, the CEO of PUMA, the company would be capable of relocating its entire production for the US market to other countries within a year; however, this is certainly not the company's preferred path forward. Yet, faced with GSC interruptions due to the Covid-19 pandemic in early 2020, the sourcing for the US market was totally moved out of China.¹⁸ As in the case of Apple, the major beneficiaries of PUMA's supply chain relocations out of China are other Asian countries such as Vietnam, Bangladesh and Cambodia.

The analysis underlines that the US-China trade war is a main driver for GSC relocations out of China although fast rising costs were raising concerns among global firms even earlier. The negative impact of the conflict is not limited to companies from the US but also affects firms from other countries with US-China linkages in their GSC. The recently announced decoupling under President Trump has heightened the risk as GSC can now be disrupted by administrative orders in a rather unpredictable way. Moreover, the lockdowns during the Covid-19 pandemic in 2020 have temporarily caused major interruptions in global and regional trade flows and provided an additional argument to check the robustness and resilience of GSC. As far as the supply of the Chinese market itself is concerned, local production will prevail – most of the foreign firms “manufacture in China for sale in China” with a limited volume reserved for export. In the case of sourcing and exporting out of China, two trends are visible: first, diversification of GSC by following a so-called “China + 1” strategy, i.e. to continue operations in China but to build up a parallel supply base in another country and, second, shifting certain

operations partly or entirely out of China. Our analysis reveals that the companies primarily relocate their operations to diversify and not for the sake of leaving China. Furthermore, a differentiation by industries is necessary. The technology and industrial sector as well as industries that are rather R&D-intense are more exposed to the impact of the trade war. In contrast, the healthcare and consumer goods industries which produce locally are least affected. The favorite destinations for relocation are Southeast Asian countries, especially Vietnam and India. Relocating to Mexico and the US plays a role for firms supplying the US market whereas German firms also see the CEE region and Western Europe as an alternative to sourcing from Asia.

Realistically, the establishment of a separate China-centric supply chain for the Chinese market (and Southeast Asian markets) and a non-China-centric one for the US (and its allies) is hard to implement. Within the past two decades, China has increased its attractiveness as a GSC destination due to its distinct and well-developed industry clusters, its good infrastructure and increasingly innovation-friendly environment. China's suppliers have moved upward in the value chain, expanded their competencies and provide now R&D and technology services. Financial incentives, provision of infrastructure and other support from central and local governments for big global firms played a major role too. Furthermore, those firms discovered that when relocating production and assembly to other countries in the region, they are still dependent on components and parts from China as production inputs. Developing a similar framework in other countries will take years.

Accordingly, finding and relocating to destinations comparable to China is a complex time-consuming and cost-intensive process. Not to mention the second-order effects such as possible retaliation measures by a hard-pressed Chinese government including curbing or cutting the access to a fast growing market of 1.4 billion potential consumers. Government-induced consumer boycotts of foreign brands are an often used and effective tool of economic coercion against foreign countries by China. A recent report by the International Institute for Strategic Studies comes to the conclusion that in the electronics, machinery and technology sector disconnecting from China's supply base is "economically and, for some countries, politically unfeasible".¹⁹ While China's role as the "world's factory" may shrink in the next years, it will still play a crucial role in global value chains.

Original paper

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² UNCTAD (2020): World Investment Report 2020. <https://unctad.org/webflyer/world-investment-report-2020> [Accessed on December 3, 2020]

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⁴ The first round of tariffs did not only affect imports from China but those from other regions too (e.g. from the EU).

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⁶ EU Chamber of Commerce in China and MERICS (2021): Decoupling – Severed ties and patchwork globalization. <https://www.europeanchamber.com.cn/en/publications-decoupling> [Accessed on January 29, 2021]

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¹⁰ German Chamber of Commerce in China & KPMG (2020): German Business in China - Business Confidence Survey 2019/20. https://china.ahk.de/fileadmin/AHK_China/Market_Info/Economic_Data/GCC_BCS_2019_20_final.pdf [Accessed on December 18, 2020]

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¹² Ibid.

¹³ So far, Apple managed to get exemptions for iPhone imports from China.

¹⁴ Garcia-Herrero, A. (2020): Companies must move supply chains further from China. Nikkei Asian Review. February 26. <https://asia.nikkei.com/Opinion/Companies-must-move-supply-chains-further-from-China> [Accessed on December 9, 2020]

¹⁵ Ibid.

¹⁶ Li, L. & Ting-Fang, C. (2021): Apple ramps up iPhone and iPad output shift to India and Vietnam. Nikkei Asia. January 27. <https://asia.nikkei.com/Economy/Trade-war/Apple-ramps-up-iPhone-and-iPad-output-shift-to-India-and-Vietnam> [Accessed on January 28, 2021]

¹⁷ Süddeutsche Zeitung (2020): Puma Rekordjahr 2019: Coronavirus-Einbußen in Grenzen halten. February 19. <https://www.sueddeutsche.de/wirtschaft/sportartikel-herzogenaurach-puma-rekordjahr-2019-coronavirus-einbuessen-in-grenzen-halten-dpa.urn-newsml-dpa-com-20090101-200219-99-975970> [Accessed on December 19, 2020]

¹⁸ Ibid.

¹⁹ Ramirez, D. (2020): COVID-19: Global trade and supply chains after the pandemic. IISS Research Paper. August 27. <https://www.iiss.org/blogs/research-paper/2020/08/covid-19-trade-and-supply-chains> [Accessed on January 28, 2021]