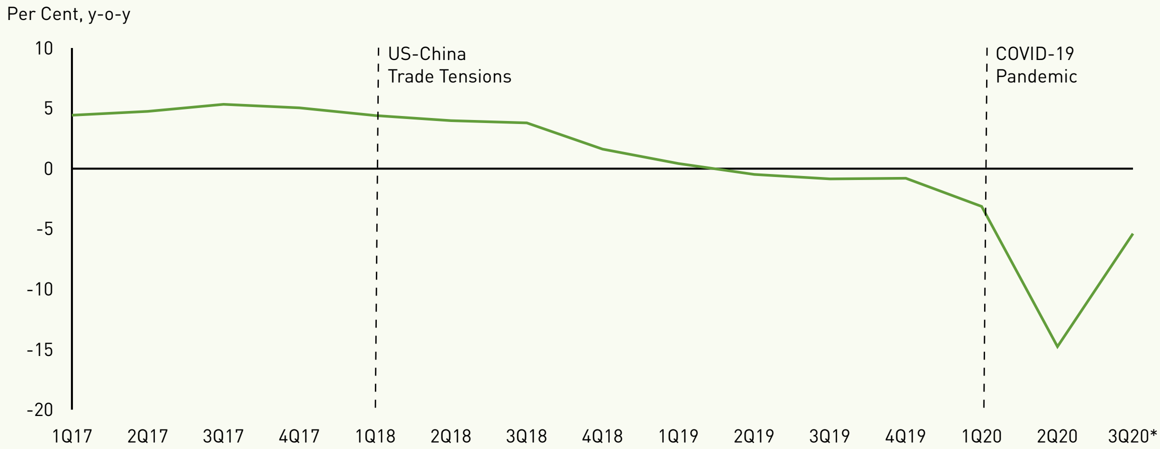
BOX ARTICLE 1.1

SUPPLY CHAIN RECONFIGURATION AMIDST US-CHINA TRADE TENSIONS

The flare-up of trade tensions between the United States (US) and China since 2018 has contributed to pressure on global trade and supply chains. It has heightened uncertainty and added to trade costs. Global trade growth has moderated amidst US-China tensions and anti-globalisation sentiments in major advanced economies [Exhibit 1]. The weakness in global trade and pressure on supply chains have been exacerbated by the onset of the COVID-19 pandemic. As the US and China are both major economies, deterioration in US-China trade relations have far-reaching implications on economies around the world given the integrated nature of global supply chains. This article explores US-China trade tensions' effect on Singapore's supply chains.

Global trade has been weak and exacerbated by the COVID-19 pandemic

Exhibit 1: Growth in Global Trade Volume, 1Q2017-3Q2020



Source: World Trade Monitor, Netherlands Bureau for Economic Policy Analysis
*Data for 3Q20 is based on the first two months of the quarter

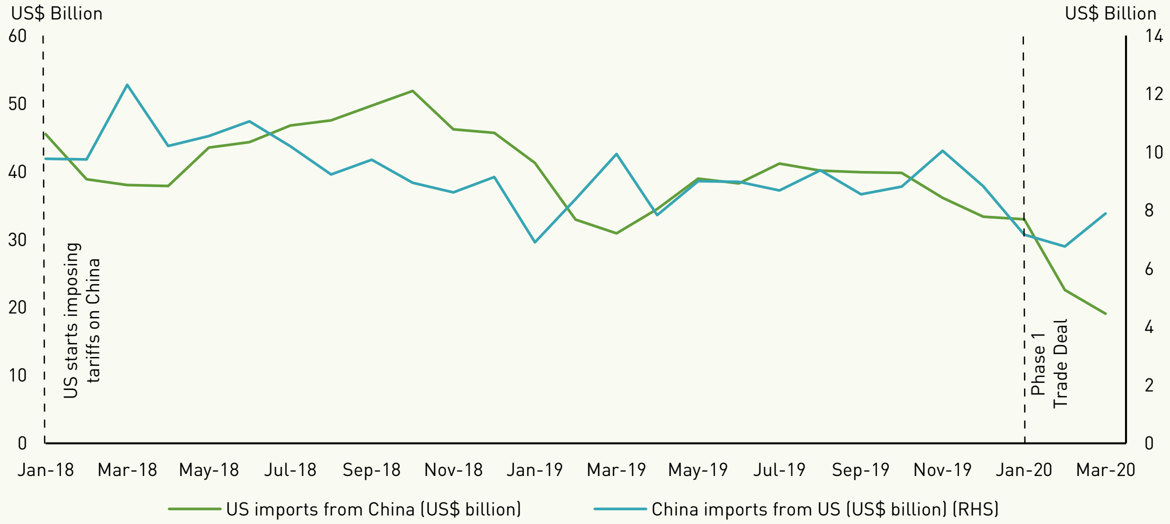
Since the start of US-China trade tensions, US' imports from China have seen a decline

Between January 2018 (start of US-China trade tensions) and March 2020[1], US imports from China fell by 58 per cent [Exhibit 2], attributable to the tariffs imposed by the US on products such as electronics, machinery, chemicals and manufacturing products.[2] In tit-for-tat measures, China imposed tariffs on agricultural and chemical products from the US, ranging from soybeans to beef and liquefied natural gas. As a result, China's imports from US also experienced a dip of 29 per cent between January 2018 and March 2020. This stabilised with the signing of the Phase 1 Trade Deal between the US and China in January 2020.

1 *Our study period ends in March 2020, around the time when the COVID-19 outbreak escalated around the world, as trade flows were disrupted by the pandemic and data were less representative of the effects of US-China trade tensions.*

2 *Peterson Institute for International Economics (PIIE), 2020. As a result of the trade conflict, the US' applied tariff rate on goods from China rose from three per cent at the start of 2018 to 21 per cent at the end of 2019. China's average applied tariff rate on imports from the US also increased from eight per cent to 21 per cent over the same period. In January 2020, the Phase One Trade Deal was signed. Under that, the US halved its tariffs on US$125 billion worth of goods and removed planned tariffs on US$160 billion worth of goods, while China agreed to increase the purchase of US goods by US$200 billion over two years.*

Exhibit 2: China and US monthly imports (US$ billion), 2018-2020

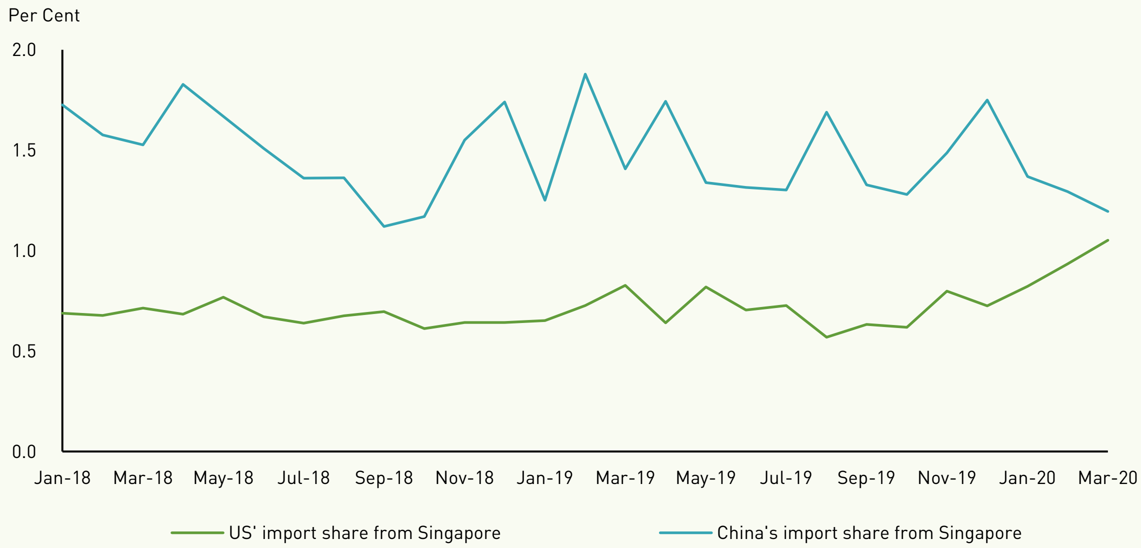


Source: Seabury

During this time, Singapore's domestic exports to China and the US have remained relatively stable

Given the integrated nature of global supply chains, trade tensions between the US and China could have had far-reaching impact not just on the quantity and composition of their trade with each other, but also on their trade with other countries. In the case of Singapore, US' import share from Singapore stayed relatively constant from 2018 to 2019, with a slight increase since the start of 2020 [Exhibit 3]. Similarly, China's import share from Singapore remained relatively stable in 2018 and 2019 after an initial dip at the start of the trade tensions. While the shifts in trade patterns are small at the overall level, larger shifts could have occurred at the sectoral or product level.

Exhibit 3: China's and US' import shares from Singapore, 2018-2020



Source: Enterprise Singapore and Seabury | Note: Computed using Singapore's domestic exports value

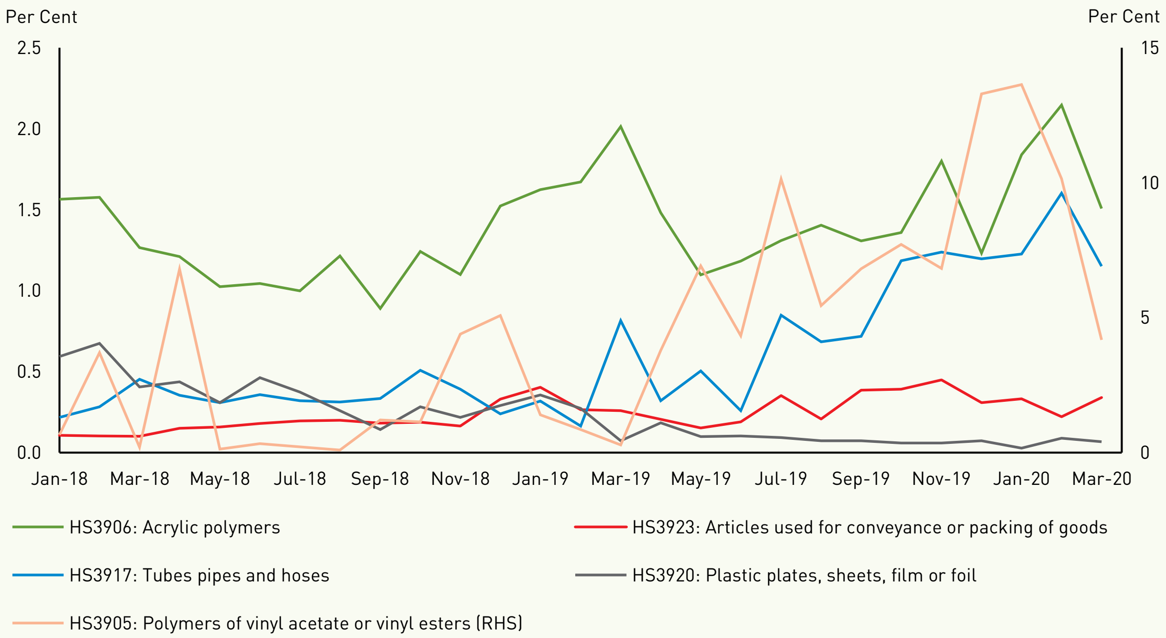
The next section examines changes in US' and China's import shares from Singapore for products that (i) were exposed to tariffs imposed by either China or the US, and (ii) formed a relatively sizeable share of Singapore's domestic exports basket to either economy. Two product categories are covered under the analysis for the US, namely (i) plastic products and materials, and (ii) electrical machinery and equipment. For the analysis for China, we will focus on (i) petroleum and chemical products, and (ii) products such as electrical machinery and parts and food preparations.

Singapore's exports to the US and China encountered both opportunities and competition

Shifts in US' import shares from Singapore

In general, it is observed that the US increased its import shares from Singapore for plastic products and materials [Exhibit 4], except for plastic plates, sheets, film or foil (HS 3920). For instance, US' import share from Singapore for polymers of vinyl acetate or vinyl esters (HS 3905) increased from 0.6 per cent to 4.2 per cent between January 2018 and March 2020. As the US could have been diversifying its import sources for plastic products, this reflected a possible growth opportunity for Singapore.

Exhibit 4: Shifts in US' import shares from Singapore for plastic products and materials, 2018-2020



Source: Enterprise Singapore and Seabury | Note: Computed using Singapore's domestic exports value

The picture was more mixed for Singapore's exports of electrical machinery and equipment, as there were both gains and losses in US' import shares from Singapore for these products. While Singapore gained US' import share for products such as transmission apparatus for broadcasting (HS 8525) and electric sound or visual signalling apparatus (HS 8531)[Exhibit 5], Singapore's exports of electrical apparatus for switching and protecting electrical circuits (HS 8536) saw a deterioration in their share of US' imports [Exhibit 6].

Exhibit 5: Shifts in US' import shares from Singapore for electrical machinery and equipment (gained), 2018-2020

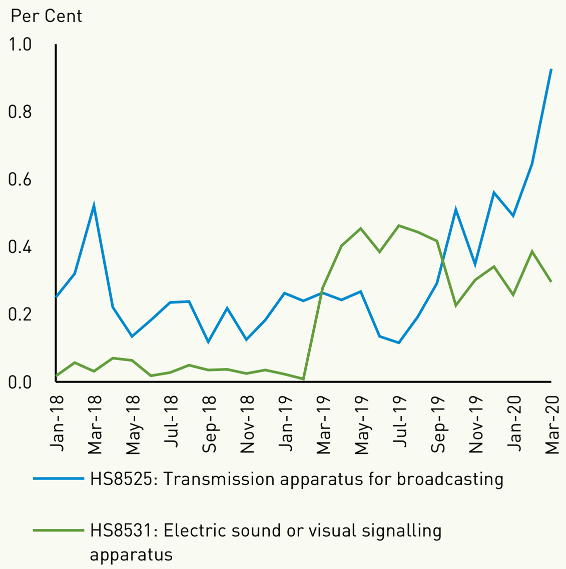
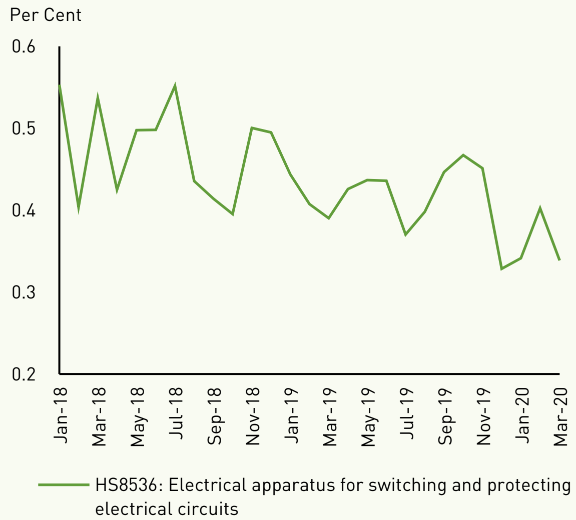


Exhibit 6: Shifts in US' import shares from Singapore for electrical machinery and equipment (lost), 2018-2020



Source: Enterprise Singapore and Seabury | Note: Computed using Singapore's domestic exports value

Shifts in China's import shares from Singapore

Singapore's exports of petroleum and chemical products generally gained import shares in China. As China had imposed tariffs on the imports of various chemical products from the US[3], Singapore's chemical suppliers would have become more competitive as an alternative source for Chinese manufacturers. In particular, China's import share from Singapore for petroleum coke and bitumen (HS 2713) rose from 7.8 per cent in January 2018 to almost 19 per cent in March 2020 [Exhibit 7]. China's import shares from Singapore for polyacetals, polyethers and epoxide resins (HS 3907) and metal pickling preparations (HS 3810) also rose steadily during this period. In comparison, Singapore's exports of organic chemicals (HS 2923) saw a loss in import share [Exhibit 8].

Exhibit 7: Shifts in China's import shares from Singapore for chemical products (gained), 2018-2020

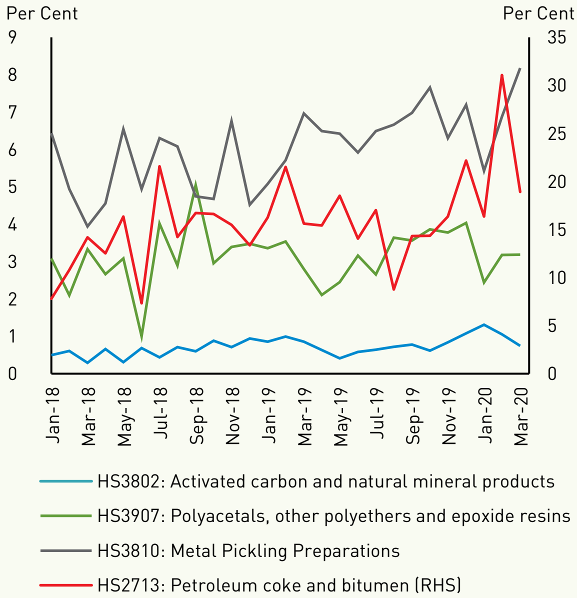
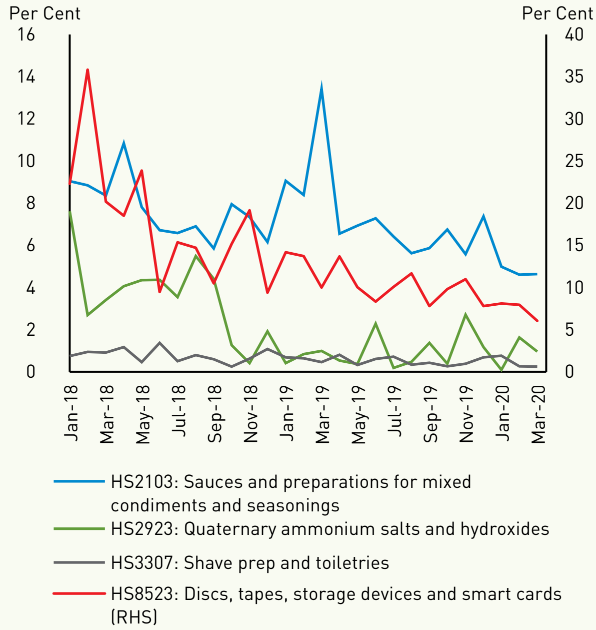


Exhibit 8: Shifts in China's import shares from Singapore (lost), 2018-2020



Source: Enterprise Singapore and Seabury | Note: Computed using Singapore's domestic exports value

3 China's tariffs on US' products included a wide variety of petrochemicals, specialty chemicals (polyethylene, polyvinyl chloride (PVC) and polycarbonates) and plastics.

Meanwhile, Singapore's exports of edible preparations required for food manufacturing (HS 2103) and electrical machinery and parts such as disc tapes (HS 8523) registered a decline in China's import share. Interestingly, Singapore's exports of electrical machinery and parts to other markets such as Malaysia and Thailand have risen since early 2019 in comparison, suggesting some shift in supply chains for intermediate products within the region.

The analysis above indicates how US-China trade tensions resulted in both opportunities and competition for Singapore's exports. While Singapore's exporters increased their share of the US market for selected plastic products, the shifts were less clear for the exports of electrical machinery and equipment. With China, Singapore's exporters saw an increase in China's import share for some chemicals, while exports of electrical machinery and parts such as disc tapes lost import share.

Global uncertainties persist

As a small and open economy, Singapore is highly exposed to the impact of global developments, including trade tensions by other economies that impact global supply chains. Looking ahead, challenges in the external environment remain. Anti-globalisation sentiments in major advanced economies have yet to recede, and increased protectionism could result in measures that cause further disruption to global supply chains.

On Singapore's part, we remain committed to upholding an inclusive and predictable international trading system, strengthening our trade network, and seeking out new opportunities and markets. We will also enhance supply chain resilience through diversification and further growing our global connectivity. At the same time, it is important for firms to stay agile and adapt to changes to stay plugged in to the global economy.

References

Peterson Institute for International Economics (PIIE). 2020. "US-China Trade War Tariffs: An Up-to-Date Chart". https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date-chart. Retrieved 19 Nov 2020

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