April 26, 2017

Asia-Pacific Countries' Relative Vulnerability to Potential Protectionist Trade Policies in the US

- **Malaysia, the Philippines, and Japan appear relatively vulnerable to changes in US trade policies on the basis of an index of Asia-Pacific (APAC) countries' economic exposure to the US.**
- **China's relative vulnerability to changes in US trade policies is below the APAC regional average: its exports contribute a smaller than average share to its economy and it is relatively less integrated into global supply chains. However, China's sizeable bilateral trade surplus with the US keeps it at the centre of US trade-policy discussions.**

The US is the second most important export destination—right after China—for most countries in APAC. Therefore, export-oriented Asian economies would be adversely affected should the US administration move ahead with the implementation of protectionist trade policies, such as import tariffs, termination of existing trade agreements, or disincentives, such as tax charges, for multinational corporations to maintain or expand production outside the US.

One such negative trade policy development has already occurred: the US withdrawal from the Trans-Pacific Partnership (TPP) was a disappointing development for the APAC economies involved in its negotiation. In terms of the US-China relationship—which influences trade dynamics throughout the APAC region—the risk of an outright trade war between the two countries has diminished significantly following the meeting between President Donald Trump and President Xi Jinping in early April. Nevertheless, we remain watchful for possible frictions as the Trump administration remains committed to addressing US trade policy imbalances.

Trade ties are just as important for the US as they are for Asia-Pacific. APAC provides 41% of all goods imported to the US, a higher share than any other region (NAFTA provides 26%). In particular, APAC is an important supplier of final goods to the US, with 84% of US imports from the region consisting of consumer and capital goods. Electronics, machinery, and vehicles are the main US imports from APAC (chart 1).

This report focuses on assessing APAC countries' relative vulnerability to the potential rise of US protectionism through their dependence on trade with the US, the depth of their integration with global supply chains that ultimately export to the US, and the diversity of their goods exports to the US. Using these metrics we build a US exposure index on a representative sample of 16 countries in Asia-Pacific, which allows us to rank the regional economies according to their relative vulnerability to changes in US trade policy.

DIRECT GOODS EXPORT EXPOSURE

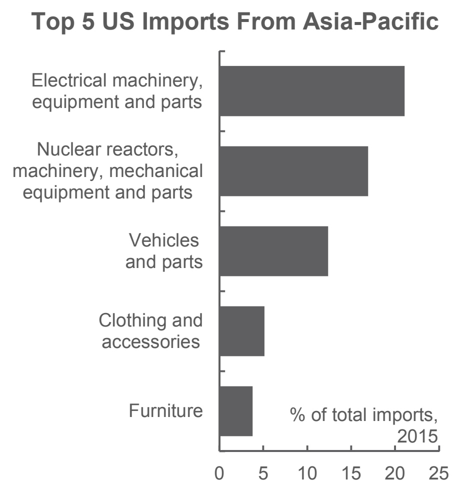
Economic growth throughout Asia-Pacific relies heavily on export-sector performance. On average, goods exports are equivalent to about 23% of regional GDP. The direct exposure to US import demand in each regional economy is the most important element of our index and we include two metrics to capture this

CONTACTS

Tuuli McCully
65.6305.8313
Scotiabank Economics
tuuli.mccully@scotiabank.com

Raffi Ghazarian
1.416.866.4211
Scotiabank Economics
raffi.ghazarian@scotiabank.com

Chart 1



Sources: Scotiabank Economics, UN Comtrade.

Chart 2

Sources: Scotiabank Economics, IMF.

key source of vulnerability. We compare each country's goods exports to the US as a percentage of its total international exports (chart 2) and the share of exports to the US in the country's nominal GDP (chart 3).

Many APAC countries send a significant share of their exports to the US, but the importance of these exports in total output terms varies. On average, the region sells 15% of its exports directly to the US. Vietnam sells a quarter of its exports to the US, followed closely by Cambodia with the US purchasing 23% of its total shipments abroad (chart 2). China and Japan send 22% and 20%, respectively, of their exports to the US. However, Vietnam and Cambodia are significantly more vulnerable to protectionist trade policies in the US as their exports to the US are equivalent to 20% and 17% of their annual GDP, respectively (chart 3). Despite the US's importance as a market for China and Japan, the larger and more diverse nature of their economies provides them with some cushion against changes in US policies: Chinese and Japanese shipments to the US correspond to only 4% and 3% of their respective GDPs, close to the regional average. Although Malaysia's US export share is below the APAC average, its US exports account for a substantial portion of its GDP: the country sells only 14% of its exports to the US, but this is equivalent to over 11% of Malaysia's GDP, making it relatively highly exposed to the US.

INDIRECT GOODS EXPORT EXPOSURE

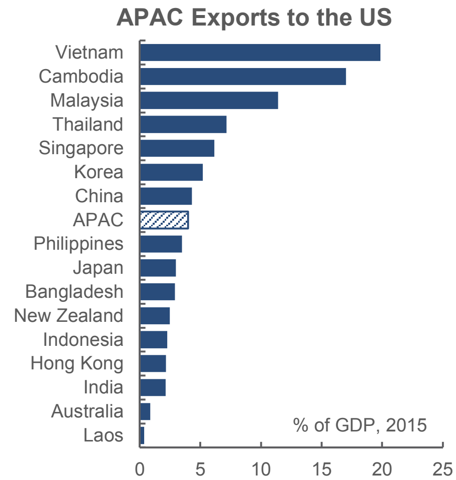
In addition to the direct export impact, higher duties on US imports would inflict secondary adverse effects on the region due to its deeply integrated supply chains. Exports of intermediate goods and raw materials represent 52% of the region's total exports (chart 4). For instance, Asia-Pacific economies' exports to China—the number-one export destination for most countries in the region—are often inputs for goods assembled in China and shipped onward to the US. Therefore, any protectionist US trade policy measures targeted at specific countries—such as China, which accounts for half of the US trade deficit in goods—would be felt throughout the region. Accordingly, the share of intermediates in a country's total exports is the third metric in our index.

On average, half of APAC exports are intermediate goods. Laos, Australia, and Indonesia export significant shares of intermediates and materials (87%, 80%, and 69% of total exports, respectively). However, their exports consist mainly of commodities—mostly wood (Laos), mineral products (Laos, Australia, and Indonesia) and metals (Australia)—that specifically feed the booming Chinese infrastructure and real estate sectors. The indirect supply-chain impact stemming from US protectionism would therefore be felt more strongly by countries that produce intermediates for the production of consumer and capital goods, namely Malaysia, the Philippines, South Korea, Japan, and Singapore. A significant share of these countries' exports consists of electronic components such as integrated circuits and semiconductor devices (these two product categories combined account for 31% of total exports of the Philippines, 24% in Malaysia, 19% in Singapore, 13% in South Korea, and 6% in Japan). Indeed, the electronics value chain is particularly exposed to changes in US trade policy given the fact it is the top US imported goods category.

PRODUCT CONCENTRATION EXPOSURE

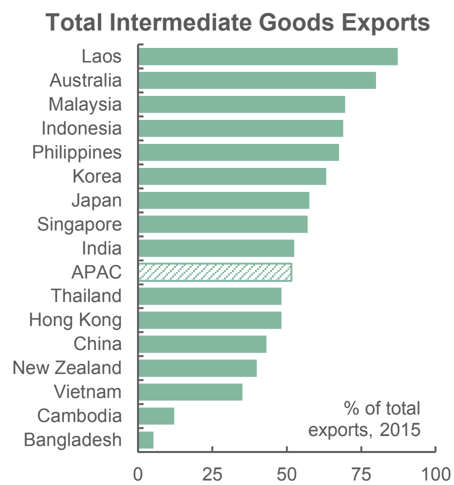
Countries that do not offer a diversified export product mix would be at a disadvantage should US protectionism focus on certain goods categories, such as those in which the US has the largest trade deficits globally, namely

Chart 3



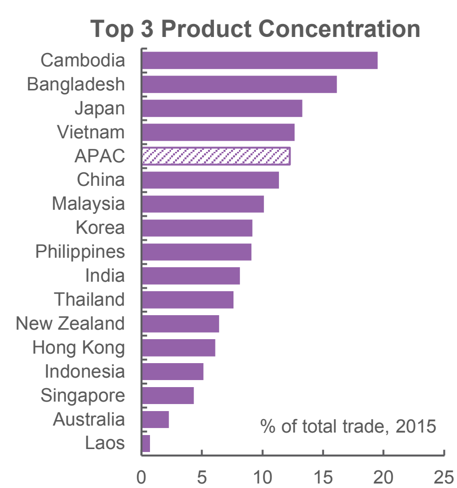
Sources: Scotiabank Economics, IMF.

Chart 4



Sources: Scotiabank Economics, UN Comtrade.

Chart 5



Sources: Scotiabank Economics, UN Comtrade.

telecommunications equipment, computers and related parts, and passenger cars. Accordingly, the fourth metric in our relative vulnerability index is a concentration ratio that captures the degree to which total exports to the US are concentrated in a small number of product categories; in our case we chose the top 3 categories for each country.

Some of the least-developed countries in Asia, such as Cambodia and Bangladesh, have the greatest product concentration in the region: they focus on exporting clothing and footwear (chart 5 and table 1). However, US tariffs on imported apparel (around 10–14%) are already relatively high compared with other products, which may lessen the perceived need for higher protectionist measures for the textile and apparel industry in the US. Product concentration is also high in Japan, Vietnam, China, and Malaysia. Japan, China, and Malaysia appear fairly vulnerable because a large share of their exports to the US are higher-value-added products in the sectors with the aforementioned largest US trade shortfalls and these goods currently enjoy relatively low import tariffs (less than 1.5% on average).

Table 1

Cambodia: Top 5 Exports to US

Sector	% exports to US	% total exports
Clothing and accessories	81.8	17.5
Footwear	7.2	1.5
Plastics	2.3	0.5
Leather products	1.8	0.4
Furniture	1.5	0.3

Bangladesh: Top 5 Exports to US

Sector	% exports to US	% total exports
Clothing and accessories	87.6	15.1
Other textile articles	3.6	0.6
Headgear	2.5	0.4
Footwear	1.9	0.3
Leather products	0.7	0.1

Japan: Top 5 Exports to US

Sector	% exports to US	% total exports
Vehicles and parts	35.0	6.7
Nuclear reactors, machinery, mechanical equipment and parts	22.1	4.2
Electrical machinery, equipment and parts	12.5	2.4
Optical, photographic or medical instruments, accessories and parts	4.9	0.9
Other commodities	2.8	0.5

Vietnam: Top 5 Exports to US

Sector	% exports to US	% total exports
Clothing and accessories	27.4	5.7
Electrical machinery, equipment and parts	21.1	4.4
Footwear	11.8	2.5
Furniture	11.1	2.3
Nuclear reactors, machinery, mechanical equipment and parts	6.6	1.4

China: Top 5 Exports to US

Sector	% exports to US	% total exports
Electrical machinery, equipment and parts	27.0	5.6
Nuclear reactors, machinery, mechanical equipment and parts	21.2	4.4
Clothing and accessories	6.4	1.3
Furniture	6.1	1.3
Toys and accessories	5.1	1.1

Malaysia: Top 5 Exports to US

Sector	% exports to US	% total exports
Electrical machinery, equipment and parts	62.3	8.0
Nuclear reactors, machinery, mechanical equipment and parts	11.2	1.4
Optical, photographic or medical instruments, accessories and parts	5.6	0.7
Rubber and rubber products	4.6	0.6
Furniture	2.9	0.4

Sources: Scotiabank Economics, UN Comtrade.

ASIA-PACIFIC'S RELATIVE VULNERABILITY TO US PROTECTIONISM: INDEX CONSTRUCTION

To quantify and compare Asia-Pacific countries' relative vulnerability to changes in US trade policy, we constructed an index that ranks the 16 APAC economies studied in this report according to their US exposure (table 2 and chart 6), by aggregating the four exposure metrics discussed in this report.

The index is constructed by taking the arithmetic mean of the four equally weighted components for 16 representative countries in the Asia-Pacific region:

- The first component is each country's direct exports to the US as a percentage of its total goods exports;
- The second element is each country's exports to the US as a percentage of its nominal GDP;
- The third component is each country's exports of intermediate goods as a percentage of its total goods exports; and
- The final component is each country's top 3 export categories to the US as a percentage of its total goods exports.

Index values range between 0 and 100 with the latter implying extreme dependence on the US market. The average index value for the APAC region is 21.1.

RESULTS

According to our index rankings, Malaysia, the Philippines, and Japan are the three countries in Asia-Pacific most vulnerable to changes in US trade policy. The fact that these three countries are at very different stages of economic development implies that both advanced and developing nations in APAC could be hurt by the rise of US protectionism.

Malaysia appears to be the country that is relatively most vulnerable in Asia-Pacific to adverse changes in US trade policy. The nation's direct goods shipments to the US are a significant source of income for the economy (11.4% of GDP) and fairly concentrated on few product categories (microchips alone account for 30% of Malaysian exports to the US). In addition, Malaysia is also tightly integrated into global supply-chains. The Philippines' second place owes to the importance of the US as an export destination (15% of total exports, yet US exports as a share of GDP are relatively low at 3%), combined with a high export product concentration and the country's status as a producer of intermediates for the global trade network.

Japan ranks third, which mainly reflects the importance of the US as a trading partner (the US purchases a fifth of Japanese exports). Japan's vulnerability could be further amplified by the fact that the US has a sizeable bilateral goods trade deficit with Japan—amounting to USD 69 bn in 2016, second only to China (chart 7)—as this may trigger a formulation of Japan-specific trade policies in the US. In addition, Japan has been placed onto the US Treasury's "Monitoring List" of major US trading partners along with South Korea, China and Taiwan in the APAC region. Although the list does not label these countries as currency manipulators, they still "merit close attention to their currency practices".

South Korea ranks 5th in our index and is a highly trade-oriented economy: its merchandise trade is equivalent to 70% of GDP. The country ships a sizeable share of its exports to the US (over 14%) and is tightly connected with global value chains. Nevertheless, its exposure to the US is sheltered by the fact that it is one of only three APAC countries—in addition to Singapore and Australia—that have an existing free-trade agreement with the US (we assume that the FTA will not be revoked).

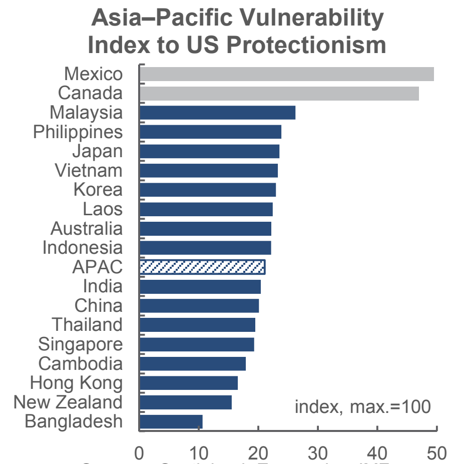
China stands out with a vulnerability ranking that is relatively low (10 of 16) despite the fact that the US is its biggest trading partner and its exports to the US are relatively concentrated in a few product categories. These facts are offset by (a) Chinese export receipts from the US are relatively small compared with the size of its economy; and (b) intermediate goods account for a smaller share of China's global exports compared with its APAC neighbours, which could lessen indirect adverse supply chain ramifications. Therefore, our index implies that any protectionist measures, such as generic import tariffs, would have a lesser impact on the performance of the Chinese economy compared with most of its regional peers. However, we highlight that the China-US trade relationship is more imbalanced than the bilateral relationship with Japan: China accounts for roughly half of the US goods trade deficit (the bilateral US trade shortfall was USD 347 bn in 2016). Therefore, the US administration has implied it will give special attention to China when formulating its trade policies. Given that China supplies largely final goods to the US (three quarters of Chinese exports to the US are final goods), China-targeted tariffs would ultimately be felt by the American consumer. In addition, US action against China could inadvertently hurt traditional US allies such as South Korea, Japan, the Philippines, and Australia that are part of the Asian value chain, which could have unintended repercussions for the US.

Table 2

Asia-Pacific Vulnerability Rankings
1) Malaysia (26.2)
2) Philippines (23.9)
3) Japan (23.5)
4) Vietnam (23.3)
5) Korea (23.0)
6) Laos (22.4)
7) Australia (22.1)
8) Indonesia (22.1)
9) India (20.3)
10) China (20.1)
11) Thailand (19.4)
12) Singapore (19.3)
13) Cambodia (17.9)
14) Hong Kong (16.6)
15) New Zealand (15.5)
16) Bangladesh (10.6)

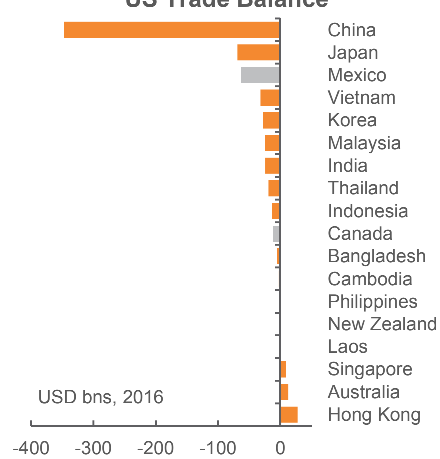
Sources: Scotiabank Economics, IMF, UN Comtrade.

Chart 6



Sources: Scotiabank Economics, IMF, UN Comtrade.

Chart 7



Sources: Scotiabank Economics, US BEA.

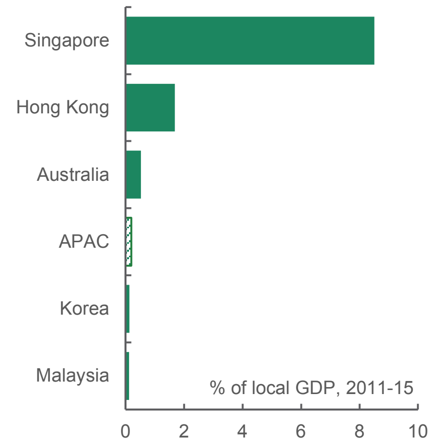
From a regional perspective, although APAC accounts for a larger share of goods exports to the US than NAFTA, the region's overall vulnerability to US protectionism is relatively much less severe (chart 6). Mexico and Canada, with 49.5 and 46.9 index values respectively, are much more vulnerable to changes in US trade policy. In a similar fashion, many other Latin American countries would likely be significantly affected by protectionist US trade policies, given their proximity to the US and to Mexico.

OTHER CONSIDERATIONS

Our vulnerability index focuses on trade of goods. Services trade was omitted owing to deficiencies in data availability. Another source of vulnerability arises from APAC's dependence on US-originated foreign direct investment (FDI). The US administration has shown that it will not hesitate to put pressure on American manufacturing corporations to shift production into the US instead of moving, maintaining, or expanding operations offshore. Indeed, some US automakers have already adjusted their plans and have announced that they will increase production at home. Should the trend of the US administration's intervention into corporate matters intensify, Singapore and Hong Kong would be particularly exposed (despite their low rankings in our vulnerability index): their average annual FDI inflows from the US over the past five years were equivalent to 9% and 2% of their GDP, respectively—a much higher share than elsewhere in the region (chart 8). Simultaneously, however, American corporations' investments abroad over many years have helped both Singapore and Hong Kong to accumulate sizeable stocks of US-originated FDI that have strengthened the two economies' status as regional business hubs. These stocks would offset the economies' vulnerability to some extent since they create a natural constituency in the US that could oppose changes to trade and investment policies.

Chart 8

US Foreign Direct Investment Flow



Sources: Scotiabank Economics, US BEA, IMF.

THE ROAD AHEAD

Trade is essential to the health of the Asia-Pacific economy due to its sizeable contribution to economic growth and people's wellbeing; accordingly, the trend of rising protectionism—particularly in the US—is worrisome. While the US administration's rhetoric toward China has recently softened, the risk of changes to US trade policy persists. It remains to be seen what steps, if any, the current US administration will take: whether it will target particular countries or industries on its trade relations with APAC, or if geo-political factors will inhibit protectionist rhetoric from being turned into action.

INTERNATIONAL ECONOMICS GROUP

Pablo F.G. Bréard, Head
416.862.3876
Scotiabank Economics
pablo.breard@scotiabank.com

Erika Cain
416.866.4205
Scotiabank Economics
erika.cain@scotiabank.com

Tuuli McCully
65.6305.8313
Scotiabank Economics
tuuli.mccully@scotiabank.com

Estela Molina
416.862.3199
Scotiabank Economics
estela.molina@scotiabank.com