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US-China Trade War:
Potential Trade and Investment Spill-overs into Malaysia

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Abstract

The trade conflict between the US and China has the potential to affect Malaysia's trade with both countries as both are important trading partners. The imposition of safeguard tariffs by the US will affect Malaysia's solar exports to the US though its exact impact is unclear due to the complicated implementation of this tariff. The tariffs imposed on China raises the possibility of trade and investment diversion to Malaysia. Re-exports play an important role in Malaysia's export adjustments to the US and China from 2017 to 2018. The possibility of investment diversion from China is high given the growing presence of China's investment in Malaysia since the announcement of the Belt and Road Initiative (BRI).

Keywords: Trade, Investment, Trade Policy

JEL Codes: F13, F14, F21

US-China Trade War:
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1. Introduction

External trade plays an important role in Malaysia's economy, providing an opportunity for exporters to gain economies of scale by venturing outwards beyond the confines of the small domestic market. The importance of international trade is reflected in its share in the country's Gross Domestic Product (GDP), which has been consistently over 100 per cent since 1998, reaching 131.1 per cent in 2017. Malaysia has actively participated in global value chains, through the inflows of foreign direct investments (FDIs) in the country, especially in the non-resource-based sector such as electronics trade in parts and components. However, this openness to international trade also implies that Malaysia is susceptible to external shocks such as fluctuations in commodity prices and the on-going trade war between the US and China as both are important trading partners for Malaysia. In 2017, China remains the largest trading partner of Malaysia (USD 67,229 million or 16.4 per cent), a position it has held since 2009 (USD 36,350 million or 8.9 per cent in 2009). The US is the third largest trading partner in 2017 (USD 36,623 million or 8.9 per cent). Malaysia's exports to the US and China contributed 23 per cent of the country's total exports. In fact, exports to the US totaled USD 20,576 million (9.5 per cent), and USD 29,188 million to China, (or 13.5 per cent).

The current trade tensions can affect Malaysia's direct exports with the US due to the imposition of safeguard tariffs on selected items, which includes some of Malaysia's major exports to the US. It may also affect Malaysia's trade with China since some of Malaysia's exports to China contribute towards its exports of final products to the US as well as other third country export markets. At the same time, any slow-down in China's economy due to the negative impact of the trade war can also affect Malaysia's exports to China. There is also the possibility that the US may substitute some of its imports from China with imports from Southeast Asia, including Malaysia. Investment diversion is another potential impact as investments shift away from China to avoid the tariffs. Hence, the tariffs imposed on China has the potential to generate trade and investment spill-overs in Malaysia's trade with the US as well as China.

[1] Paper presented at the March 2019 Asian Economic Panel Meeting on "The Global Trade System in Disarray: Fixing Design Flaws and Adjusting to a Multi-Polar World", 29-30 March 2019, Sunway University, Malaysia

The objective of this study is to examine the potential impact of the on-going trade war between the US and China on Malaysia's trade and investment. Specifically, it examines the direct impact of the safeguard tariffs on Malaysia's solar exports to the US and China and the potential for trade and investment diversion to Malaysia.

2. Literature Review

Prior to the announcement of the actual tariffs and items involved in trade war with China in 2018, some studies have used Computable General Equilibrium (CGE models) to create different scenarios on the trade war. Bollen and Rojan-Romagosa (2018) examined five possible scenarios: (i) US unilateral steel and aluminium (S&A) tariffs, (ii) Retaliation over US steel and aluminium tariffs, (iii) US-China trade sanctions, (iv) US tariffs on motor vehicles, and (v) trade war escalation. They found limited global impact for scenarios (i) and (ii). However, China and EU may have some positive economic gains due to the trade diversion effect. US and its NAFTA partners are negatively affected. For scenario (iii), China may be affected by a loss in its Gross Domestic Product (GDP) of 1.2 per cent compared to a US GDP loss of 0.3 per cent. In this scenario EU and the OECD countries may have small gains also due to the impact of trade diversion. For scenario (iv), the EU may be affected although other transport equipment sectors may benefit. Finally, in scenario (v), a uniform non-services tariff increase is imposed between the US and other countries. In this case, all countries lose due to the tariffs.

Of greater relevance to the East Asia is the Guo *et. al* (2018)'s study which uses a multi-country and multi-country general equilibrium model of Eaton and Kortum (2002) to examine the changes in exports, imports, output, and real wages in 62 major economies in response to a 45 per cent tariff imposed by America against the imports from China or the rest of the world. In general, they conclude that high US import tariffs will have an adverse impact on international trade. Using changes in real wages as a proxy for welfare gains/loss, China encounters a smaller welfare loss compared to the USA if China retaliates by increasing their tariffs to the same level for their imports from the US. Due to trade diversion, China may export more to small countries while the US has to produce more. The paper argued that China may not suffer from its retaliation due to the possible terms-of-trade gains. Small open countries may receive some gains. Malaysia, for example, obtains a 1.40 per cent in welfare gains, behind Singapore (2.6 per cent) if Trump imposes an import tariff on 45 per cent on Chinese goods unilaterally. If the US imposes a 45 per cent tariff against the rest of the world unilaterally, the welfare gains (measured by real wages) of Malaysia is projected to increase by 0.45 per cent

(compared to Viet Nam which has a decline in real wages by 0.75 per cent). The source of gain is attributed to the lower import prices resulting from the declining demand from the U.S

In Cali (2018)'s study, US imports from China is expected to fall by USD68.6 billion based on the US import elasticity of demand and the published lists of Chinese products in the three tranches. He also estimated the replacement potential of Chinese exports to the US by East Asian economies. His findings indicate that Vietnam, the Philippines, and Cambodia are the East Asian countries with the largest replacement potential relative to the size of their economies. For investment diversion, Taiwan, Thailand, Malaysia, Vietnam, and the Philippines have the biggest potential based on the export similarity of these countries with the displaced exports of China. Finally, he also estimated the indirect trade impact, based on country-specific shares of domestic value added in Chinese gross exports to the US in those products which are available from the OECD Trade in Value Added (TiVA) database, with the estimated drop in Chinese exports. In this instance, Taiwan and Malaysia are identified as the most vulnerable, with an estimated loss in their respective GDP by 0.24 per cent and 0.20 per cent.

Abdul Abiad, et.al., (2018) uses the Asian Development Bank (ADB)'s Multiregional Input-Output Table (MRIOT) to calculate the impact for developing Asia, under three scenarios; current, escalation of trade war and the "worse-case" scenario. The study estimates the direct impact on all tariff-affected goods and uses input-output analysis to estimate the indirect impact on the individual country's GDP, employment and exports. For Malaysia, the results indicate modest positive gains in all three scenarios for the impact on GDP and exports. Gains in exports are higher under the bilateral escalation and "worse-case" case scenario (1.9 per cent and 1.8 per cent, respectively), as opposed to the current scenario where the gain in exports is a mere 0.8 per cent.

There are very few studies conducted for Malaysia alone. MIDF (2018) focused on quantifying the impact of the trade tensions on Malaysia's trade performance, although the model used was not explained. They predict that a one per cent drop in the US demand will reduce Malaysia's output by 0.86 per cent while the imposition of tariff hikes on washers, solar panels, aluminium and steel will reduce Malaysia's export growth by 3-5 per cent in 2018. They further highlight the increasing importance of re-exports in the Malaysian economy as its share in gross exports have reached a historical high of 21 per cent by middle of 2018. The average for re-exports to exports ratio from 1990-2017 is 6 per cent. The ratio has been on upward trend since Global Financial Crisis (GFC) in 2009 and escalated to double-digit growth since 2013. Re-exports are largely fuelled by machinery and transport equipment (MTE) re-

exports due to added transhipment and redistribution activities, reportedly based in Penang. The latter is contributed by Malaysia's drive to attract Foreign Direct Investment (FDI) with incentives for the establishment of Regional Distribution Centres (RDCs) and International Procurement Centres (IPCs) since 2003 (MIDA 2016). Some foreign manufacturers have established RDCs or IPCs in the country and conducts manufacturing and redistribution concurrently.

Muhamad Aizuddin et. al. (2018) estimate the potential gains from trade substitution to be up to USD970 million, based on the list of products in which Malaysia has already a large presence in the US's import market. However, the method is not explained. Their anecdotal evidence suggests that the safeguard tariffs have a neutral to mildly negative impact, based on export market diversion for steel and a strong demand for solar panels and components.

Overall, there is limited current data (as in 2018 and 2019) to quantify the empirical impact of the trade war for a single country study such as Malaysia, since the tariffs were imposed only in 2018.

3. Overview: Malaysia's exports to the US and China

The top five export products contribute up to 80 per cent of Malaysia's total exports to the US in 2017 (Table 1). Electronic products such as machinery and electrical (HS 85 and 84), including electronic integrated circuits alone contribute 62 per cent of total exports. Malaysia is however a relatively small import supplier for the US (column 4). HS 85 has the largest share in total US imports of this product group from the world, followed by HS 40 (rubber and articles thereof). The share of the US in Malaysia's exports is higher, especially for HS 94 (furniture etc.) and HS 40.

Table 1: Top Five Export Products to the US, 2017, USD ('000,000)

HS Codes	Malaysia's exports to the US	Share in Malaysia's total exports to the US (%)	US imports from the World	Malaysia's shares in total US imports (%)	Malaysia's Exports to the World	Share of US in Malaysia's exports to the World (%)
85	9,357.6	45.5	356,673.5	6.9	68,306.5	13.7
84	3,400.2	16.5	349,027.4	1.1	23,747.5	14.3
40	1,464.5	7.1	27,941.6	5.7	7,189.0	20.4
90	1,458.1	7.1	86,126.6	2.4	7,827.1	18.6
94	866.3	4.2	67,228.1	1.5	2,636.1	32.9

Source: United Nations Commodity Trade Statistics Database, 2019

Likewise, in the case of China, HS 85 and 84 are important exports from Malaysia to China (about 44 per cent of the total exports to China, see Table 2). However, unlike exports to the US, the exports of mineral fuels, oil etc. takes up 16 per cent of total exports to China (HS 27). Two other resource-based products (HS 40 and 15 (animal and vegetable fats etc.)) are also important export items. Malaysia also occupies a smaller share in China's imports of HS 85 and 84 (at 5.2 per cent), while the share of China in Malaysia's total exports of these two items to the world is significantly higher at 25 per cent.

Table 2: Top Five Export Products to the China, 2017, USD ('000,000)

HS Codes	Malaysia's exports to the China	Share in Malaysia's total exports to the China (%)	China imports from the World	Malaysia's shares in total China imports (%)	Malaysia's Exports to the World	Share of China in Malaysia's exports to the World (%)
85	10,532.4	36.1	457,922.5	2.2	68,306.5	15.4
27	4,642.7	15.9	249,624.5	0.7	33,079.3	14.0
84	2,371.0	8.1	169,532.4	3.0	23,747.5	10.0
40	1,860.8	6.4	18,754.1	1.2	7,189.0	25.9
15	1,395.3	4.8	8,285.1	0.3	13,480.1	10.4

Source: United Nations Commodity Trade Statistics Database, 2019

4. Government's Response

In Table 3, the safeguard tariffs imposed on solar, steel and aluminium since February 2018 can affect Malaysia's exports to both the US and China. The solar tariffs should reduce Malaysia's exports of solar cells to the US, while exports to China may increase if there is export market diversion or diversification to China. Malaysia has sought consultation on the safeguard tariffs based on Article12.3 of the World Trade Organization (WTO)'s Agreement on Safeguards. According to Ministry of Trade and Industry (MITI), this consultation is permitted because Malaysia is a major exporter to the US for solar panels.[2] The government also wanted further clarification from the US on the implementation procedure for the in-quota exemption. MITI further emphasized that the consultation was not a response nor a retaliation in the context of the trade war, but a clarification.

For the tariffs imposed on China's exports to the US, as shown in Stages 2 and 3 in Table 3, there is the potential for US imports to be diverted to Malaysia. However, the

[2] Based on email query to MITI, 7 March 2019.

government is concerned over the possibility of Malaysia being targeted as a country used for circumventing the US's tariffs against China as this can lead to costly anti-circumvention investigations (Nikkei Review, October 11 2018). MITI has established a task force in July 2018 to monitor and assess the developments of the United States-China trade conflict. The task force will focus on formulating strategies to mitigate the impact of protectionism and act as a focal point for stakeholders to present their views, comments and feedback (Invest Penang, 2018). This is to ensure that Malaysia is not being used as a transhipment point for any circumvention of US tariffs on China, and to avoid being used for dumping (Ho, 2018). US trade officials have at least visited the ministry three times in 2018 in their investigations on the possibility of trade circumvention in the country. The US Department of Commerce (DOS) has preliminarily determined that a company in Malaysia has been circumventing the anti-dumping duty on butt-weld fittings from China (The Star 28 July 2018). Although there are no specific laws against tariff circumvention in Malaysia, there are laws against the falsification of documents. Companies have to manufacture in Malaysia in order to obtain local certificates of origin. MITI also intends to use the rules of origin requirements in its Free Trade Agreements (FTAs) to prevent fraudulent claims in terms of the origins of a product exported from Malaysia.

5. Impact on Trade: Early Assessment

To assess the export products that can potentially be affected by the US tariffs, we map the product lines in the three tranches (Lists 1, 2, and 3)[3] into the list of products that Malaysia exports to the US at the HS-6 digit product level in 2017. We separate gross exports into domestic exports and re-exports in view of its increasing importance in Malaysia, especially in recent years. In 2017, products such as machinery/electrical (HS84 and 85), are the main products affected in both domestic exports and re-exports from Malaysia to the US for all the three lists (Tables 4, 5 and 6). This is especially the case for List 2, where the share of HS 84 and 85 are the highest among all the three lists, contributing as much of 93 per cent of Malaysia's exports to the US in this list. It is significantly less important for List 3, where it contributes only 45 per cent.

[3] Based on https://www.cmtradelaw.com/2018/10/latest-u-s-trade-actions-tariffs-and-other-countries-retaliatory-measures/ and https://ustr.gov/sites/default/files/enforcement/301Investigations/Tariff%20List-09.17.18.pdf

Table 3: Summary of Trade Actions, 2018 – March 2019

Trade Actions	Implementation	Malaysia's Actions
Stage 1 **January - March**	**Safeguard Tariffs** Solar tariffs (30%) Steel (25%) Aluminium (10%)	Malaysia requests for consultation on safeguard tariffs based on Article 12.3 of WTO Agreement on Safeguards
Stage 2 **March - August**	**Targeted Tariffs** 25% on USD50 billion worth of Imports from China (List 1: 25% on 818 items of USD 34 billion takes effect on 6 July); (List 2: 25% on 279 items worth USD 16 billion)	MITI has set up a task force in July to monitor and assess the developments of the United States-China trade conflict, including monitoring for trade circumvention and dumping
Stage 3 **September**	**Targeted Tariffs** 10% tariffs on USD200 billion of imports from China (List 3); To be Increased to 25% by January 2019	MITI task force monitoring
December 2018 – March 2019	**Temporary Truce** US to refrain from increasing tariffs from 10% to 25% on 1 January 2019; Suspend imposition of tariffs on additional imports from China, worth USD267 billion	MITI task force monitoring

Source: Column (1) and (2) are summarised from https://www.china-briefing.com/news/the-us-china-trade-war-a-timeline/; column (3) is based on communication with MITI and media sources, as cited in the text.

Table 4: Share of Malaysia's top 10 HS 6-digit export and re-export products to United States, 2017 (List 1)

HS codes	2017 Domestic Exports (RM million)	% OF TOTAL LIST 1	HS codes	2017 Re-exports (RM million)	% OF TOTAL LIST 1
854140	5,728	21.46	854140	395	23.21
844399	4,694	17.59	903090	183	10.76
853710	1,840	6.89	847170	129	7.60
847170	1,291	4.84	903040	118	6.92
852691	1,049	3.93	843143	113	6.64
903090	983	3.68	853690	83	4.90
880330	963	3.61	901819	62	3.66
847330	883	3.31	854320	62	3.62
903040	677	2.54	844399	59	3.48
901890	537	2.01	880330	33	1.92
Sub-Total	18,646	69.85	Sub-total	1,238	72.71
Total	26,694	100.00	Total	1,703	100.00

Source: Constructed based on unpublished data from DOS

Table 5: Share of Malaysia's top 10 HS 6-digit export and re-export products to United States, 2017 (List 2)

HS codes	2017 Exports (RM million)	% OF TOTAL LIST 2	HS codes	2017 Re-exports (RM million)	% OF TOTAL LIST 2
854140	5,728	27.65	854231	1,993	65.13
844399	4,694	22.66	854140	395	12.92
854231	3,584	17.30	854239	344	11.23
853710	1,840	8.88	844399	59	1.94
854239	1,648	7.95	854232	55	1.80
854110	739	3.57	271019	41	1.35
854290	538	2.60	854290	39	1.28
848690	316	1.52	848690	32	1.04
271019	269	1.30	854233	26	0.86
854232	196	0.95	853710	20	0.66
Sub-total	19,553	94.37	Sub-total	3,005	98.21
Total	20,719	100.00	Total	3,060	100.00

Source: Constructed based on unpublished data from DOS

Table 6. Share of Malaysia's top 10 HS 6-digit export and re-export products to United States, 2017 (List 3)

HS Codes	2017 exports (RM million)	% OF TOTAL LIST 3	HS Codes	2017 re-exports (RM million)	% OF TOTAL LIST 3
401519	4,871	12.30	847180	630	33.07
851762	4,840	12.22	851762	217	11.37
844399	4,694	11.85	750210	137	7.17
847180	2,497	6.31	270900	133	6.97
853710	1,840	4.65	847170	129	6.79
940350	1,817	4.59	844399	59	3.11
847170	1,291	3.26	271019	41	2.17
850811	1,145	2.89	851769	34	1.77
847330	883	2.23	271012	33	1.75
853400	742	1.87	400941	28	1.47
Sub-total	24,622	62.16	Sub-total	1,441	75.65
Total	36,609	100.00	Total	1,905	100.00

Source: Constructed based on unpublished data from DOS

6. Safeguard Tariffs

Malaysia's exposure to the US steel and aluminium market is limited as it is not a big exporter to the world, China nor the US (Table 7; see also Alyssa Farha Jasmin Aidonna Jan Ayub, 2018). This is in contrast to the case of solar cells (HS 854140), which is an important export item to the US in Lists 1 and 2 (Tables 4 and 5). Since the solar safeguard tariffs can directly affect Malaysia's exports to the US and it is also an important export industry, we present a case study of this industry in the section below.

Table 7: Share of steel and aluminium exports from Malaysia to the World, US and China for 2017 (US Dollars in millions)

Country	World		China		US	
	Value (USD million)	Malaysia's share in total exports	Value (USD million)	Share of China in total exports	Value (USD million)	Share of the US in total exports
732393	10	0.00	0	0.00	0	0.00
732690	255	0.12	8	0.00	18	0.01
761699	387	0.18	38	0.02	25	0.01
sub-total	652	0.30	46	0.16	44	0.21
Total export	216,428	100.0	29,188	100.0	20,576	100.0

Notes: http://www.cybex.in/HS-Codes/of-stainless-steel-aluminium.aspx for the codes

Source: United Nations Commodity Trade Statistics Database, 2019

7. Case Study: Solar Industry

Malaysia aspires to develop an entire solar industry ecosystem; from research and development (R&D), design, to the production of metal silicon, polysilicon/ingots and solar wafer/cells, solar modules as well as system integrators with the use FDI (Zarina Saad, 2016). The Malaysian Investment Development Authority (MIDA) is therefore tasked to attract FDI for the development of this ecosystem, using fiscal incentives (such as tax holidays, investment tax allowances, reinvestment allowances, import duty exemptions), and non-fiscal incentives such as a feed-in tariff scheme and a green technology funding scheme. Malaysia's relatively low electricity and labor costs added to the locational advantages of the country for this type of investments. In 2008, Malaysia received RM12 billion in photovoltaic (PV) industries. Four well known solar companies, First Solar, Q-Cells, Sunpower, and Tokuyama (mainly from the US, Taiwan, Germany and Japan) invested in Malaysia (EPU and World Bank 2011). Malaysia was the fourth country in the world in production of the Photovoltaic (PV) cells after China, Germany and Japan. By 2009, due to the FDIs, Malaysia became the third largest producer of PV after China and Germany, overtaking Japan in just a year.

Prior to 2018, the previous US administration had implemented anti-dumping duties to Chinese solar panels in 2012 (UNCTAD 2014). However, using a loophole in the final ruling, Chinese manufacturers circumvented the duties by importing cells manufactured in other countries and then assembling the modules in China. Thus, Chinese manufacturers moved production abroad to places such as Malaysia, South Korea and Taiwan, to circumvent the retaliatory measures and, lower costs by seeking out the lowest-cost markets. Penang in Malaysia benefited from the relocation as the state hosted factories run by China's JA Solar and Jinko. According to MIDA (2017), by 2016, exports and local sourcing activities undertaken by the top solar companies in Malaysia were valued at USD2.5 billion and USD320 million, respectively and Malaysia became the third largest manufacturer of PV modules and products in the world.

On February 7, 2018, the initial solar equipment tariff is to be 30 per cent. Thereafter, the tariffs are to decline yearly, bottoming out at 15 per cent (Table 8). The temporary solar tariffs are set to expire on February 6, 2022, but the US President may extend them for a maximum of another four years (Platzer 2018). The products covered by the safeguard tariffs are broadly defined, and include solar cells, whether or not assembled into modules, as well as parts of solar cells; direct-current generators with solar cells attached; and inverters or batteries with crystalline silicon PV cells attached (Table 9).

Table 8: Schedule of Safeguard tariffs on imported solar cells and modules

	Feb.2018-2019	Feb.2019-2020	Feb.2020-2021	Feb.2021-2022
Tariff Increase	30%	25%	20%	15%

Source: EY Global Trade: Quarterly Update, 2018

Table 9: Solar products affected by safeguard tariffs

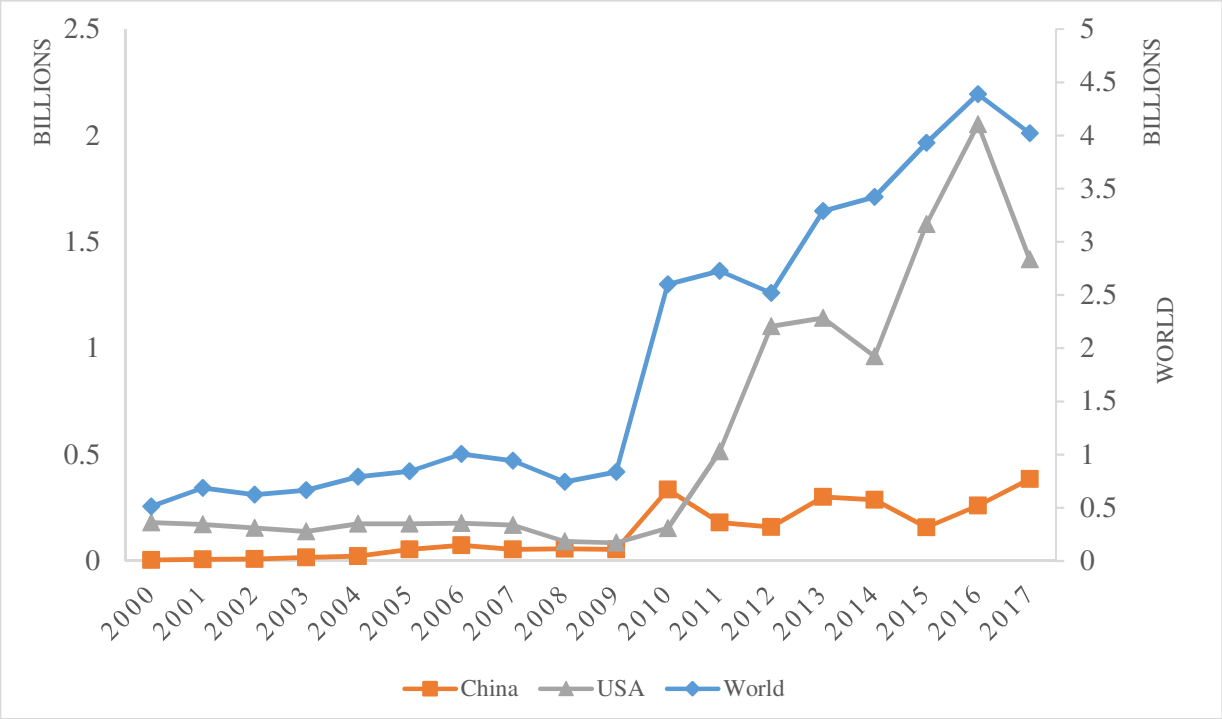
Solar cells classifications (HS)	Duty rates prior to the safeguard measure	Items
85414060	0.0%	Solar cells, whether or not assembled into modules or are made up into panels
85013180 85016100 85072080	2.5% 2.5% 3.5%	Parts or sub-assemblies of solar cells
85016100 85072080	2.5% 3.5%	Inverters or batteries with Crystalline Silicon Photovoltaic Cells (CSPV) cells attached
85013180	2.5%	DC generators with CSPV cells attached

Source: EY Global Trade: Quarterly Update, 2018

For Malaysia, the main export item is solar cells (HS854140), while the other items in Table 8 are insignificant. Figure 1 indicates the sharp increase in Malaysia's exports of solar cells to the world and to the US, after 2009 with the inflows of export-oriented FDI into this sector. US imports increased, especially after 2015 due the US solar tax credits and declining cost of imported panels as international competition intensified with the outward expansion of China's solar companies (https://www.power-technology.com/news/us-solar-panel-tariff-halts-renewable-projects-worth-billions/). However, exports to both the world and the US started to fall from 2016 to 2017. By contrast, exports to China has been trending up since 2015, indicating a possibility of diversion or diversification of export markets since the use of subsidies have led to increasing demand in China (Gang 2015), with China reportedly accounting for 50 per cent of global solar demand in 2017.

Over 80 per cent of the solar products are exported to Europe, the US and Asia. In Table 10, Malaysia is the largest importing country for solar imports in the US, followed by China. The US is also the largest export destination for Malaysia, followed by China (Table 11).

Figure 1: Exports of solar cells from Malaysia to the United States and the World from 2000- 2017, (US Dollars at current prices in billions)



Source: United Nations Conference on Trade and Development, 2019

Table 10: Share of United States' top 3 solar cells importing countries, 2017

(US Dollars at current prices in millions)

PARTNER	VALUE	% OF TOTAL US SOLAR PANEL IMPORT
Malaysia	1,867	24.05
China	1,304	16.79
Korea	1,135	14.62
Total	4,306	55.47

Source: United Nations Conference on Trade and Development, 2019

Table 11. Share of Malaysia's top 3 solar panel export destination countries, 2017

(US Dollars at current prices in millions)

PARTNER	VALUE	% OF TOTAL MALAYSIA SOLAR PANEL EXPORT
United States	1,417	35.25
China	386	9.59
Mexico	306	7.62
Total	2,109	52.46

Source: United Nations Conference on Trade and Development, 2019

There are several exclusions from the solar tariffs. First, certain types of PV products, such as thin-film modules are excluded.[4] Second, there is also an exemption from the annual tariff for the first 2.5 gigawatts of imported solar cells. The quota is to be allocated among all countries on a first-come, first-served basis. Importers are required to report the electricity power output attributable to such cells and provide accompanying information. Third, developing countries individually accounting for less than 3 per cent of total imports are also exempted from the solar safeguard import restrictions. Fourth, companies can apply for product exclusions. The U.S. Trade Representative is responsible for rules and procedures for companies to request product exclusions. This could leave out certain niche or specialty products, which are either not produced by the domestic industry or are produced in insufficient quantities to satisfy U.S. demand, such as solar-powered backpacks and lanterns, high-efficiency panels, or even imported 72-cell solar modules for utility-scale solar projects. In addition, the safeguard measure requires a review by the ITC roughly halfway through the four-year tariff period.

Given the rather complex exclusions, anecdotal responses from the producers in Malaysia are rather mixed, since some may be exempted such as thin-film modules as produced by First Solar in Malaysia, while Sunpower has reportedly successfully obtained an exemption from the solar tariffs in September 2018 (Reuters 2018). Some of the other major solar manufacturers like Cyberjaya-based Q-Cells Malaysia Sdn. Bhd., which produces monocrystalline solar panels, will be affected. On the other hand, Hanwha Q Cells has diversified its export destinations from 2018, switching from the US to the European region (MIDA 2018). The net impact is unclear due to the mixed response and because firm level data is not available.

Table 12 shows that domestic exports to the US has fallen from RM5728 million to RM4926 million, but re-exports have increased from RM395 million to RM432 million. Nevertheless, gross exports have fallen from RM6132 million to RM5358 million. However, in contrast, Malaysia's exports and re-exports to China has increased from 2017 to 2018, possibly due to China's diversification of export markets to other countries such as India, and the end of EU trade controls over the import of solar panels and cells from China in September 2018, after imposing anti-dumping and anti-subsidy measures since 2013. Overall, Malaysia's domestic exports to the world have fallen, compensated by increases in re-exports so that gross

[4] For full list of excluded products, see US Government Publishing Office (2018). "Federal Register Vol. 83, No. 182, Wednesday, September 19, 2018, Notices".

exports to the world have increased, indicating the possibility that some market diversification may have taken place.

Table 12: Exports and Re-exports of solar cells from Malaysia to the World, US and China from 2017-2018, (RM million)

Year	Domestic Exports to the World	Re-exports to the World	Gross Exports to the World	Domestic Exports to the US	Re-exports to the US	Gross Exports to the US	Domestic Exports to China	Re-exports to China	Gross Exports to China
2017	15,989	1,385	17,374	5,728	395	6,123	1,618	49	1,667
2018	14,274	3,931	18,205	4,926	432	5,358	1,673	55	1,728

Source: Unpublished DOS data

As for the other solar products in Table 9, the overall impact is positive, for gross and domestic exports to the US, while domestic exports to China decreases from 2017-2018 (Table 13). The values, however, are very small.

Table 13: Exports and Re-exports of other solar items from Malaysia to the US and China from 2017-2018, (RM million)

Year	Domestic Exports to the US	Re-exports to the US	Gross Exports to the US	Domestic Exports to China	Re-exports to China	Gross Exports to China
850131						
2017	1	0	1	4	0	4
2018	2	0	2	3	0	3
850161						
2017	4	0	4	21	--	21
2018	7	0	7	20	2	22
850720						
2017	1	--	1	--	--	--
2018	2	0	2	0	--	0

Notes: "--": not available

Source: Unpublished DOS data

8. Exploring Possible Trade Diversion from the US Tariffs Imposed on China

There is a possibility of Malaysia's exports to the US substituting for China's exports. But trade may not be diverted to Malaysia alone as there are also competing producers from the region. We use the bilateral comparative advantage (BRCA)[5] to compare Malaysia's export potential with regional competitors for all three lists. It can be seen from Tables 14, 15, and 16 that Malaysia has a BRCA greater than one for most of the product lines in all the three lists, with the exception of a few. In the case of solar cells, where Malaysia has the highest BRCA, there is however strong competition from Thailand. In each list, there are at least two items in which the BRCA is the highest in Malaysia among the countries shown, indicating the strong likelihood of Malaysia providing substitute exports to China's exports to the US. However, there is also a possibility of a drop in Malaysia's exports to China due to expected fall in China's exports to the US as a result of the tariffs.

Table 14: Bilateral RCA of Malaysia's top 10 HS 6-digit export products to United States by country, 2016 (List 1)

BRCA list 1	China	Indonesia	Malaysia	Philippines	Singapore	Vietnam	Thailand
854140	0.50	2.05	4.58	1.58	2.41	1.72	4.10
844399	1.04	2.37	4.50	--	2.29	1.19	0.68
853710	1.33	2.39	3.00	1.59	6.58	1.43	1.47
847170	0.97	0.97	1.13	0.86	1.10	1.47	2.62
852691	1.18	1.01	6.98	4.48	0.41	--	1.15
903090	1.61	0.20	2.51	0.57	1.98	0.76	3.86
880330	2.24	0.64	1.93	2.69	2.23	0.75	1.21
847330	1.39	0.13	0.81	0.56	1.31	0.54	1.43
903040	0.47	0.00	3.15	0.01	1.32	0.27	4.84
901890	1.63	0.61	1.94	2.21	1.11	0.47	2.10

Notes: "--": not available

Source: Constructed based on United Nations Conference on Trade and Development, 2019

[5] Constructed based on UNComtrade, *BRCA = $(X_{ij}^k / X_j)/ (X_{iw}^k/X_{iw})$, where X= exports, i = exporter county, j = destination country, w = world, and k = commodity.

Table 15: Bilateral RCA of Malaysia's top 10 HS 6-digit export products to United States by country, 2016 (List 2)

BRCA list 2	China	Indonesia	Malaysia	Philippines	Singapore	Vietnam	Thailand
854140	0.50	2.05	4.58	1.58	2.41	1.72	4.10
854231	0.12	0.27	0.60	--	0.48	0.36	0.49
844399	1.04	2.37	4.50	--	2.29	1.19	0.68
854239	0.09	0.01	0.61	--	0.81	0.17	1.14
853710	1.33	2.39	3.00	1.59	6.58	1.43	1.47
854290	0.13	0.53	0.62	0.68	0.28	0.35	0.55
854370	1.41	0.61	1.15	--	2.93	0.68	1.05
850780	0.14	0.01	4.40	2.04	0.48	0.59	0.44
848690	0.74	0.10	1.27	--	2.73	1.34	1.75
271019	0.38	--	0.06	0.00	0.50	0.00	0.00

Notes: "--": not available

Source: Constructed based on United Nations Conference on Trade and Development, 2019

Table 16: Bilateral RCA of Malaysia's top 10 HS 6-digit export products to United States by country, 2016 (List 3)

BRCA list 3	China	Indonesia	Malaysia	Philippines	Singapore	Vietnam	Thailand
851762	1.50	2.41	4.91	--	2.09	2.14	5.36
401519	1.75	4.48	3.30	0.00	1.01	0.44	3.72
844399	1.04	2.37	4.50	--	2.29	1.19	0.68
847180	1.20	6.55	2.18	0.01	3.79	2.82	6.05
853710	1.33	2.39	3.00	1.59	6.58	1.43	1.47
940350	1.12	6.06	5.60	0.53	3.16	2.97	1.67
847170	0.97	0.97	1.13	0.86	1.10	1.47	2.62
847330	1.39	0.13	0.81	0.56	1.31	0.54	1.43
850811	2.37	--	2.44	--	0.27	0.40	0.00
853400	0.22	0.35	1.44	0.73	0.94	0.08	0.69

Notes: "--": not available

Source: Constructed based on United Nations Conference on Trade and Development, 2019

Table 17 shows the change for the top exports of Malaysia to the US in all the three lists, excluding solar cells (as this has been analysed in the solar case study) from 2017-2018. Gross exports to the US have increased in Lists 1 and 2, but it is contributed by an increase in re-exports to the US, rather than domestic exports, which in fact have fallen. In the case of list 3, the increase in re-exports is not enough to compensate for the drop in domestic exports to the US so that there is a small drop in gross exports. Increases in exports to the US are therefore borne by re-exports, rather than domestic exports. Likewise, re-exports' contribution towards

the increase in gross exports to the world is important for all the three lists, especially in List 1 where it helps to off-set the decrease in domestic exports to the world.

Contrary to expectations, gross exports to China have increased in Lists 1 and 2. Again, re-exports play an important role. In fact, gross exports in List 3 fell marginally as re-exports fell, unlike the case of Lists 1 and 2. China's exports rose 9.9 percent in 2018, its strongest trade performance in seven years, despite growing disruptions from an escalating trade war with the US. China's exports to the United States in 2018 have instead increased by 11.3 percent to USD 478.4 billion despite the Trump tariffs, due apparently to front loading (US News, 2019). However, exports to the US in December 2018 have contracted so that the negative impact may appear later in 2019.

Table 17: Top Ten* exports and re-exports from Malaysia to the World, United States and China, 2017 - 2018 (Lists 1, 2, 3), (RM million)

	DOMESTIC EXPORT			RE-EXPORT			GROSS EXPORT (DOMESTIC + RE-EXPORT)		
List 1	**World**	**United States**	**China**	**World**	**United States**	**China**	**World**	**United States**	**China**
2017	142,375	12,918	7,029	12,055	843	554	154,431	13,761	7,583
2018	137,101	12,314	8,304	14,282	1,955	777	151,383	14,269	9,081
List 2	**World**	**United States**	**China**	**World**	**United States**	**China**	**World**	**United States**	**China**
2017	173,133	13,825	26,662	67,195	2,610	12,239	240,327	16,435	38,901
2018	175,827	12,944	25,680	119,151	4,031	22,998	294,978	16,974	48,679
List 3	**World**	**United States**	**China**	**World**	**United States**	**China**	**World**	**United States**	**China**
2017	385,663	24,622	21,981	73,055	1,441	18,283	458,718	26,063	40,264
2018	397,936	22,912	24,328	80,403	2,026	15,491	478,339	24,938	39,819

Note: *Solar cells are excluded from this Table for Lists 1 and 2 as it has already shown in Table 11.

Source: Tabulated from unpublished DOS data

9. Medium-Term: Possible Investment Diversion

Some media reports indicate the possibility of investment diversion, with Malaysia as a possible beneficiary of the possible relocation of some enterprises out of China as well as the diversion of new planned investments to South East Asia, due to the on-going trade war and its associated uncertainties. For example, the Star (28 February 2019), reported two companies (Kayamatics Ltd., a Hong-Kong based Internet of Things (IOTs) and Micron, a US semiconductor company), are planning to build production lines in Kuala Lumpur and Penang respectively, as an alternative to China.

Although global flows of FDI fell by 16 per cent from 2016 to 2017, inflows into ASEAN grew rose from $123 billion in 2016 to an all-time high of $137 billion in 2017, with a rise in investments in eight Member States (ASEAN Secretariat, 2018). However, inflows into Malaysia bucked this trend as total inflows fell (Table 18). By regions, the trend from 2014 to 2017 shows the increasing share of China in total net inflows of FDI into Malaysia, after the announcement of the Belt and Road Initiative (BRI) in 2013. Inflows from China grew steadily from a mere 2.7 per cent in 2014 to a share of 16.9 per cent in 2017. Adding the share of Hong Kong as some of these investments may be joint ventures with China or Chinese companies incorporated in Hong Kong, increases the share from 12.4 per cent in 2014 to a peak of 44.1 per cent in 2016 before falling to 16.9 per cent in 2017 due to the drop in investments from Hong Kong by about half.

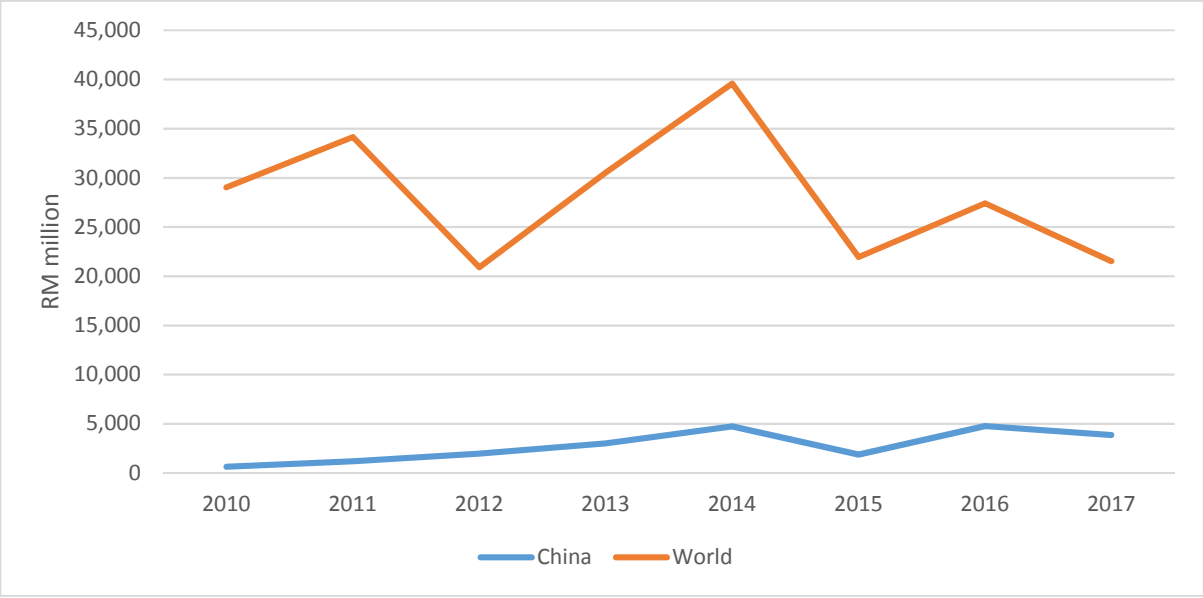
Table 18: Net Inflows of FDI, according to regions, 2014-2017 (RM million)

Region	2014	2015	2016	2017
EU	9,819	5,550	6,678	10,552
USA	-1,738	5,402	4,937	-4,651
Canada	272	227	-30	-37
East Asia	5,867	13,759	26,253	21,226
China	975	1,315	5,902	6,938
Hong Kong	3,439	1,799	14,836	7,466
Japan	2,220	9,494	3,627	5,015
Korea	-835	575	339	853
Taiwan	39	592	339	853
Others	29	-16	44	2
SEA and other Asia	7,451	11,639	8,738	9,252
Singapore	7,087	8,340	7,154	6,193
Total	35,600	39,377	47,025	41,041

Source: Department of Statistics, Statistics of Foreign Direct Investment in Malaysia, 2018

Inflows of manufacturing investments indicate that China is the largest foreign investor in Malaysia, for 2016-2017 and up to the first half of 2018 (Figure 2). These investments show that the change of government after the 14th General Elections in May 2018 (GE14), which have dampened the overall investment climate due to considerable uncertainties in terms of policy continuities, has not affected China's investments in the country thus far. This is rather unexpected as the cancellation of some of the controversial projects with China was expected to have a negative impact on China's investments in Malaysia. Nonetheless, Mahathir's impending participation the Belt and Road (BRI) Forum in April 2019 is indicative of Malaysia's continued support of the BRI, despite the change in administration and negative publicity towards some projects during the GE14 campaign trail; the cancellation of some of the projects as well as the financing scandals associated with some of them. But, one of the most controversial projects, which is the East Coast Railway Line (ECRL) is likely to be reinstated after intensive price negotiations between the two countries and reflects the fact Malaysia is still an important trade and investment destination for China.

Figure 2: Total Approved Manufacturing Projects from the World and China, 2010-2017



Source: Malaysian Investment Development Authority, 2018

In terms of sub-sectors, China's investments in the manufacturing sector is more focussed on resource-based sectors such as steel, pottery, rubber products (Table 19). It is not confined to manufacturing alone and China's investments in Malaysia are instead found in multiple sectors such as services, real estate, construction, ports and other transport infrastructure, agriculture as well as e-commerce. It would appear that Malaysia will be a strong contender for investments relocating out of China to circumvent the tariffs that the US has imposed on China, based on recent historical trend.

However, the government is also cautious about accepting relocation investments as it does not wish to be subject to costly investigations as well as potential duties from the US for hosting investments seeking circumvention from the US tariffs on China. Moreover, the government is also seeking for higher value-added FDI.

10. Conclusion

The trade conflict between the US and China has the potential to affect Malaysia's trade with both countries as both are important trading partners. In the case of the safeguard tariffs, although the US is an important export partner for solar cells, the net impact is unclear due to the complicated implementation of this tariff such as the exclusion list, the implementation of tax-free quotas and exempted firms producing in Malaysia. The trade data from 2017 to 2018 shows a drop in Malaysia's gross and domestic exports of solar cells to the US but an increase in its gross and domestic exports to China.

Secondly, export diversion to Malaysia is likely to occur due to Malaysia's relatively high bilateral comparative advantage in the top ten exports to the US compared to the other regional producers. Gross exports to the US have increased in Lists 1 and 2, but it is contributed by an increase in re-exports, rather than domestic exports. In the case of List 3, the increase in re-exports is insufficient to cover the fall in domestic exports, leading to a fall in gross exports to the US.

Gross exports to China have also increased in Lists 1 and 2. It fell for List 3 because of the fall in re-exports although domestic exports have increased in this list. Contrary to expectations, China's exports have not yet fallen in 2018, reportedly because of stockpiling. Neither has its exports to the US fallen yet, for the year as a whole. Accordingly, the negative impact of China's projected reduction in exports to the US on other trade partners may only register in 2019.

Overall, it is important to observe that re-exports play an important role in Malaysia's export adjustments to the US and China from 2017 to 2018. Foreign manufacturers which also

have regional distribution or international procurement centres in Malaysia may have chosen to make short-term adjustments through their re-exporting activities, until the outcome of the trade war is more certain.

There is also a possibility of investment relocation from China to Malaysia, given the upward trend of China's investment in the country since the announcement of the BRI in 2013. While Malaysia, in general, welcomes increased trade and investments with China, it is also cautious about the possibility of circumventing trade and investment taking place in the country, lest it is caught in the cross-fire between the US and China.

Table 19: Approved Manufacturing Projects with China Participation, 2010-2017 by Industry

Year	2010		2011		2012		2013		2014		2015		2016		2017	
Industry	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share
Electronics & Electrical Products	559	87.35	1,082	90.61	667	33.71	859	28.48	4,456	93.78	271	14.50	1,308	27.39	-	-
Basic Metal Products	14	2.14	13	1.07	1,200	60.68	1,200	39.77	138	2.91	955	51.04	1,774	37.16	212	5.50
Chemical & Chemical Products	-	-	5	0.42	-	-	193	6.39	-	-	527	28.15	1,429	29.93	2,366	61.38
Petroleum Products (Inc. Petrochemicals)	-	-	3	0.23	7	0.36	0	0.01	-	-	-	-	-	-	186	4.82
Non-Metallic Mineral Products	19	3.01	51	4.28	8	0.39	-	-	31	0.66	43	2.29	7	0.15	914	23.70
Transport Equipment	1	0.11	-	-	26	1.31	525	17.41	-	-	-	-	-	-	-	-
Food Manufacturing	4	0.55	13	1.05	-	-	4	0.12	102	2.14	-	-	148	3.11	24	0.62
Rubber Products	6	0.87	1	0.08	4	0.18	98	3.24	-	-	40	2.16	14	0.30	100	2.59
Scientific & Measuring Equipment	10	1.49	19	1.56	58	2.93	28	0.92	6	0.13	3	0.16	-	-	4	0.11
Machinery & Equipment	-	-	-	-	-	-	100	3.31	-	-	-	-	6	0.12	-	-
Fabricated Metal Products	18	2.88	0	0.03	-	-	6	0.19	-	-	3	0.15	40	0.84	10	0.25
Plastic Products	5	0.76	1	0.09	4	0.19	3	0.10	5	0.10	25	1.32	13	0.27	3	0.07
Textiles & Textile Products	0	0.03	3	0.25	5	0.24	0	0.00	-	-	5	0.25	24	0.51	14	0.37
Paper, Printing & Publishing	-	-	-	-	-	-	0	0.01	10	0.21	-	-	-	-	23	0.60
Miscellaneous	2	0.27	-	-	-	-	-	-	-	-	-	-	11	0.22	-	-
Wood & Wood Products	-	-	4	0.33	-	-	-	-	3	0.05	-	-	-	-	-	-
Beverages & Tobacco	2	0.30	-	-	-	-	2	0.05	-	-	-	-	-	-	-	-
Furniture & Fixtures	2	0.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leather & Leather Products	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	-	-
Total	640	100.00	1,194	100.00	1,978	100.00	3,018	100.00	4,752	100.00	1,872	100.00	4,775	100.00	3,854	100.00

Source: Malaysian Investment Development Authority, 2018

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