CPTPP: Implications for Malaysia's Merchandise Trade Balance

BANGA, RASHMI

UNCTAD

25 March 2019

CPTPP: Implications for Malaysia's Merchandise Trade Balance

*Rashmi Banga**

Abstract:** A mega regional Free Trade Agreement like the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) has the potential to impact countries which are inside as well as those which are outside the agreement. This paper provides empirical estimates of potential changes in Malaysia's merchandise balance of trade if it joins the CPTPP and compares it to its trade balance if it does not join this free trade agreement (FTA). A positive balance of merchandise trade is important for Malaysia as it is a net importer of services. However, since 2010 Malaysia's merchandise imports have been growing much faster than its exports. Using SMART simulations, the estimates show that if Malaysia joins the CPTPP its imports will rise much more than its exports leading to a worsening of its trade balance by around US$2.4 billion per annum. Imports of vehicles from the CPTPP countries will increase including that of plastics and its articles. Exports to the CPTPP partner countries will rise only marginally as Malaysia already has free trade agreements with its top three export destination countries, i.e., Japan, Singapore and Australia, which account for 84% of its exports to the CPTPP partner countries. Remaining out of the CPTPP will also adversely impact Malaysia's exports to the CPTPP countries but this decline is much smaller compared to the rise in its imports if it joins the CPTPP. The estimated tariff revenue loss to Malaysia of joining the CPTPP is estimated at US$1.6 billion per annum. The paper argues that along with the traditional indicators of trade competitiveness like trade balance developing countries also need to give importance to preserving their policy space in free trade agreements as the fourth digital revolution is changing the ways products are manufactured and exported. Growing trade in electronic transmissions will be a game changer in the area of international trade competitiveness.

1. Introduction

Malaysia has always been a net exporter in its merchandise trade but a net importer of services. In 2017, it enjoyed $22.6 billion of merchandise trade surplus while its net services imports amounted to US$ 5.3 billion[1]. While Malaysia enjoys a positive trade balance in its merchandise trade, this trade balance has been steadily declining over the years. It declined from US$34 billion in 2010 to US$23 billion in 2015 and further to US$22.6 billion in 2017. Most of its merchandise exports comprise of manufactured goods (67%) and fuel (15%) with top five export products going to Singapore, China and the USA. While Malaysia's exports have posted strong and resilient growth with an average annual growth rate of 4.4% in the period 2010-2017, its imports have grown faster with an average annual

*Senior Economic Affairs Officer, Unit of Economic Cooperation and Integration among Developing Countries, Division on Globalization and Development Strategies, UNCTAD. Views expressed are personal

[1]Source: UNCTADSTAT

growth rate of 6.6%. Maintaining a positive merchandise trade surplus is important for Malaysia in the face of the faster growing imports as well as a negative trade balance in services, which declined from (+) US$2.0 billion in 2010 to (-) US$5.3 billion in 2017.

In this context, it becomes important to examine the implications of any new regional trade agreement like the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) on Malaysia's merchandise exports and imports as well as its balance of trade. The share of 10 CPTPP partner countries in Malaysia's global exports has remained on an average around 31% in the period 2010- 2017, while their share in Malaysia's global imports has remained around 27%.

The CPTPP, which followed the Trans-Pacific Partnership Agreement (TPP12) after the withdrawal of the USA, was signed by 11 participating countries - Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Viet Nam - on 8th March 2018 in Santiago, Chile. By February 2019, seven out of the eleven countries had completed their ratification procedure. These are Mexico, Japan, Singapore, Australia, New Zealand, Canada and Viet Nam. Malaysia is in the process of re-examining the implications of the CPTPP. This paper estimates the likely impact of the CPTPP on Malaysia's merchandise exports, imports and its trade balance. The rest of the paper is organized as follows: section 2 briefly reviews the existing literature on the CPTPP; section 3 highlights the existing trends in Malaysia's trade with the CPTPP partner countries; section 4 discusses the methodology adopted to estimate the impact of the CPTPP on Malaysia's exports and imports to the CPTPP partner countries; section 5 presents the results at the country level as well as at the disaggregated product level; section 6 reports results of potential import tariff revenue loss to Malaysia of the CPTPP; section 7 concludes and provides a way forward.

2. Existing Literature on CPTPP

While there is an extensive literature on the impact of TPP on TPP12 countries, very limited studies exist which estimate the impact of CPTPP on the partner countries' trade. The exclusion of the USA from the TPP has drastically changed the results which were arrived at by the existing literature on TPP. The USA being the largest trading partners for all the TPP partner countries had the maximum weight in terms of bringing economic gains and losses to the TPP partner countries.

Very few studies exist which estimates the economic impact of the CPTPP. Some of the existing literature shows that the CPTPP without the USA cannot bring the expected trade gains for the CPTPP11 partner countries. For example, according to World Bank (2018), the CPTPP will increase Viet Nam's GDP by 1.1 per cent by 2030 but in terms of its trade balance, the exports are projected to grow by 4.2%, and imports by 5.3%, which will worsen Viet Nam's existing trade balance. PIIE (2017) compared the impact of the TPP and the CPTPP for the 11-member countries. While the study reports an expected rise in exports of these countries, especially for Malaysia and Viet Nam, it is silent about the expected rise in their imports. With USA out of this regional trade agreement, these countries have lost their biggest export market while retaining their import partners.

Further the methodology adopted by the existing studies including that used by the PIIE (2017) has been strongly criticized in the economic literature. The computable general equilibrium (CGE) models that have been adopted are based on unreasonable assumptions such as full employment, which will always show positive gains in the gross domestic product (GDP) (Raza et al, 2014)[2]. According to Taylor and Arnim (2006), most of the CGE models assume (i) fixed or 'full' employment of labour and capital is maintained everywhere in the world (ii) each country's trade deficit (or surplus) stays constant after liberalization; and (iii) completely flexible taxes on households, which enable each country's internal economy to adjust smoothly. The assumption regarding the 'constant trade balance' implies that if government revenues change due to tariff reduction or other trade policies, government expenditures must adjust endogenously to satisfy the fixed budget deficit. However, in real world this is never the case. The assumption regarding completely flexible taxes on households, imply that "any changes in government budget are automatically compensated by income tax rates on households". These assumptions mean that the models are designed in such a way that 'the price system' will always respond to liberalization in a way which leads to increases in overall well-being. These assumptions are made in most of the studies assessing implications of the TPP and the CPTPP, including the PIIE studies (2012, 2017).

According to Panagariya and Duttagupta (2001), CGE models that show 'gains' for a country from its own preferential liberalization are able to do so only by using internally inconsistent assumptions. The 'Armington assumption' used in all CGE models, including Petri et al (2017), implies that there exists 'product differentiation' i.e., no country, howsoever small, produces something which is also produced by another country in the world. In other words, domestic and foreign products are imperfect substitutes. For example, it is assumed that oil produced in one country is different from the oil produced by any other country, and therefore it can never be completely substituted.

According to Raza et al (2014), the costs of 'regulatory changes' are also never estimated by CGE models. CPTPP involves considerable regulatory changes in the member countries which can have huge short-term adjustment costs, which are ignored by the CGE models.

This paper estimates the likely increase in merchandise imports and exports of Malaysia post CPTPP, estimating the per annum change in Malaysia's Balance of Trade following CPTPP. The methodology adopted is partial equilibrium analysis at a HS 6-digit product disaggregation and therefore avoids the above discussed restrictive assumptions.

3. Existing Trends in Malaysia's Trade with CPTPP Members

[2] Raza, W., Grumiller, J, Taylor, L., Tröster, B., von Arnim, R. (2014) 'Assess TTIP: Assessing the Claimed Benefits of the Transatlantic Trade and Investment Partnership'. Vienna: Austrian Foundation for Development Research

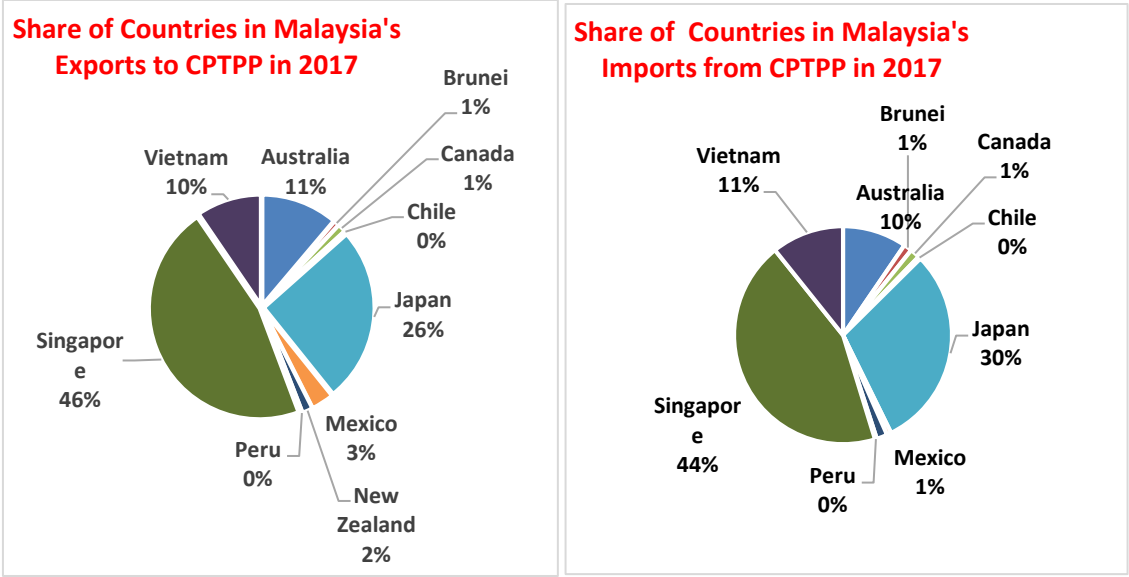
Malaysia has enjoyed a net merchandise trade balance since 2009, however this trade balance has been steadily declining. It declined from USD 34 billion in 2009 which was 21% of its exports to USD 23 billion in 2017 which amounted to 10% of its exports (Figure1).

Figure 1: Malaysia's Merchandise Exports, Imports and Trade Balance (US$ billion): 2009-2017

Source: World Integrated Trade Solutions, World Bank and UNCTAD

The share of CPTPP partner countries of Malaysia's global exports and imports has remained on an average around 32% and 27% respectively between 2010 to 2017. Examining the share of different CPTPP countries in Malaysia's exports and imports, we find that within the CPTPP Singapore is the largest export market for Malaysia (46%) followed by Japan (26%) in terms of value of exports. It is important to note that with its two largest importers which account for 72% of Malaysia's exports to CPTPP partner countries, Malaysia already as FTAs. In terms of Malaysia's imports, share of Japan and Singapore account for around 74% of Malaysia's total imports from CPTPP partner countries (Figure 2). Australia accounts for around 10% of Malaysia's exports and imports to CPTPP. Australia also has an existing FTA with Malaysia. These are the three important countries for Malaysia within CPTPP, with whom Malaysia already has FTAs and therefore may not gain any additional tariff concessions by entering CPTPP. Canada, Mexico and New Zealand have minor share in Malaysia's merchandise trade.

Figure 2: Share of CPTPP Countries in Malaysia's Exports and Imports



Source: World Integrated Trade Solutions, World Bank and UNCTAD

In terms of product-wise exports and imports, Appendix Table A.1 reports Malaysia's total exports and imports in different product categories (HS 2-Digit) to and from CPTPP countries and their share in Malaysia's global exports and imports in those product categories. The top five ranking products of exports of Malaysia in CPTPP countries are electrical machinery and equipment and parts thereof; mineral fuels, mineral oils and products of their distillation; machinery and mechanical appliances; plastics and articles thereof; optical, photographic, cinematographic products; and animal or vegetable fats and oils,

The top five products with highest share of CPTPP countries in Malaysia's global imports are wool, fine or coarse animal hair; horsehair yarn and woven fabric; nickel and articles thereof; dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included; cork and articles of cork; and live animals. CPTPP countries have more than 60% share in Malaysia's global imports in these products. In terms of Malaysia's exports to CPTPP countries the top five ranking products are clocks and watches and parts thereof; articles of stone, plaster, cement, asbestos, mica or similar materials; carpets and other textile floor coverings; cereals; and meat and edible meat offal apart from live animals. CPTPP countries have more than 64% share in Malaysia's global exports in these products.

With respect to Malaysia's tariffs vis-a-vis CPTPP10 countries, given that Malaysia already has existing trade agreements with most of the countries, Malaysia's applied and Bound tariffs are on an average lower than compared its MFN tariffs. Table 1 reports Malaysia's average tariffs with respect to the CPTPP10 countries and CPTPP10 countries average tariffs vis-a-vis Malaysia. It is important to note that the tariff liberalization for Malaysia will be greater than the CPTPP10 countries as Malaysia's

average tariffs are higher than their average tariffs for total trade. However, while average industrial tariffs are higher in Malaysia, agricultural tariffs are higher in CPTPP10 countries vis-a-vis Malaysia.

Table 1: Malaysia's Tariffs vis-à-vis CPTPP10 Countries in 2016

Malaysia vis-à-vis CPTPP10		**WTO HS Agricultural**	**WTO HS Industrial**	**Total Trade**
Applied Duties	Simple Average	2.77	5.61	**5.28**
Applied Duties	Weighted Average	3.7	4	**3.51**
Bound Duties	Simple Average	11.54	15.24	**14.75**
Bound Duties	Weighted Average	12.5	9.03	**8.9**
CPTPP10 vis-a-vis Malaysia				
Applied Duties	Simple Average	2.93	2.47	**1.11**
Applied Duties	Weighted Average	4.45	1.59	**0.23**
Bound Duties	Simple Average	14.19	14.48	**13.94**
Bound Duties	Weighted Average	11.22	9.17	**7.64**

Source: TRAINS database, World Integrated Trade Solutions, WITS

4. Methodology Used to Estimate Impact of CPTPP on Malaysia's Trade Balance

To estimate the impact of the CPTPP on Malaysia's trade balance, we use SMART simulations which are based on Partial equilibrium and available in World Integrated Trade Solutions-WITS (World Bank and UNCTAD)[3]. One of the advantages of this approach is that it allows estimation of tariff reduction at a very disaggregated level, for example, implications of removing tariffs on broken rice (at HS six-digit disaggregation). HS-Combined nomenclature is used by SMART simulations. Such a disaggregated product-level estimations of tariff reductions are not possible in any other model. SMART simulations are appropriate to use for the CPTPP analysis as only few products have high tariffs in many of the member countries and implications for removing these tariffs on exports, imports, trade creation and trade diversion can be estimated. This also resolves a number of "aggregation biases." However, it needs to be remembered that this result of partial equilibrium analysis applies to only that product/sector and ignores inter-sectoral linkages. For estimating trends in Malaysia's trade HS2012 nomenclature has been used.

The analysis is undertaken to estimate the impact of 100% tariff liberalization for all the CPTPP countries. The results arrived for exports of Malaysia will be over-estimated as in the CPTPP while

[3] https://wits.worldbank.org/

Malaysia removes tariffs on 100% imports, Japan removes tariffs on 95% of imports and Canada and Viet Nam remove tariffs on 97% of imports while Mexico removes tariffs on 99% of imports[4].

5. Impact of CPTPP on Malaysia's Trade Balance: Results

The impact of entering the CPTPP on Malaysia's imports, exports and trade balance is estimated using the above discussed methodology. The results are arrived at the country level as well as at the product level. The analysis also reports the results of new imports that will be created for Malaysia due to the CPTPP, i.e., 'trade creation' as well as imports that Malaysia will divert from non-CPTPP countries to instead buy from the CPTPP countries, i.e., 'trade diversion.' Impact of the CPTPP on Malaysia' exports is also estimated. Further, the impact of Malaysia not entering the CPTPP (while other 10 countries ratify the CPTPP) is estimated on Malaysia's exports and imports.

5.1 Impact on Malaysia's Imports from CPTPP Countries

Table 1 reports the results using the SMART simulations of the impact of CPTPP on Malaysia's trade. The simulation results show that if Malaysia enters CPTPP and all 11 countries bring their tariffs down to zero, Malaysia's total imports from the CPTPP partner countries will rise by US$2.5 billion per annum. Maximum increase of imports will take place from Japan, in which case imports into Malaysia are estimated to increase by US$1.5 billion (Table 2). This is followed by increase in imports from Singapore and Vietnam.

Table 2: Impact of the CPTPP on Malaysia's Imports from CPTPP Partner Countries

	Imports in 2016 (US$1000)	**Imports Post CPTPP** (US$1000)	**Change in Imports post CPTPP** (US$1000)	**Trade Creation** (US$1000)	**Trade Diversion Effect in** (US$1000)	**Percentage Change in Imports**
Australia	3 695 967	3 766 828	70 861	37 497	33 365	2
Brunei	156 307	159 172	2 865	1 662	1 203	2
Canada	663 154	679 072	15 918	7 764	8 154	2
Chile	104 351	107 335	2 984	2 074	910	3
Japan	**13 638 712**	**15 149 847**	**1 511 135**	**856 937**	**654 198**	**11**
Mexico	366 806	380 421	13 615	6 320	7 296	4
New Zealand	684 386	708 549	24 163	14 145	10 019	4
Peru	76 386	76 882	496	321	175	1
Singapore	17 254 412	17 830 565	576 153	306 893	269 261	3
Vietnam	4 509 779	4 834 617	324 838	166 989	157 849	7
Total	41 150 259	43 693 289	**2 543 030**	1 400 601	1 142 428	**6**

Source: Author's estimations based on SMART simulations, WITS

[4] Table 2 of Chapter 2 http://www.piie.com/publications/briefings/piieb16-1.pdf.

The results at the disaggregated product-level show that if Malaysia enters CPTPP the top five products whose imports will rise the most are vehicles; plastics and articles thereof; machinery and mechanical appliances; electrical machinery and equipment; and iron and steel (Table 3). Appendix Table A.2 reports the change in imports of 97 HS chapter (2-digit) following Malaysia's entry into CPTPP. Imports of vehicles which enter Malaysia with a custom duty will rise by 36% if these duties are brought down to zero. Table 4 presents more details of the increase in imports of motor cars, above US$2 million. Highest rise in imports will be of motor cars with HS code- 870323(of a cylinder capacity exceeding 1,500 cc but not exceeding 3,000 cc), followed by motor cars under HS code-870324 (of a cylinder capacity exceeding 3,000 cc), mainly from Japan.

Table 3: Impact of CPTPP on Malaysia's Imports from CPTPP Partner Countries: Product-Level

	HS Chapter		**Imports of Malaysia Before CPTPP** (US$1000) **(2016)**	**Estimated Imports of Malaysia after CPTPP** (US$1000)	**Change in Imports post CPTPP** (US$1000)	**Percentage Change in Imports of Malaysia post CPTPP (%)**
1	87	Vehicles Other Than Railway or Tramway Rolling Stock, And Parts and Accessories Thereof	1 794 805	2 436 822	642 017	36
2	39	Plastics and Articles There of	1 325 380	1 562 165	236 785	18
3	84	Nuclear Reactors, Boilers, Machinery and Mechanical Appliances; Parts Thereof	1 353 111	1 585 407	232 296	17
4	85	Electrical Machinery and Equipment and Parts Thereof; Sound Recorders and Reproducers, Television Image and Sound Recorders and Reproducers, and Parts and Accessories of Such Articles	994 438	1 180 381	185 943	19
5	72	Iron and Steel	918 529	1 097 007	178 478	19
6	76	Aluminium and Articles There of	260 588	373 546	112 958	43
7	71	Natural or Cultured Pearls, Precious or Semi-Precious Stones, Precious Metals, Metals Clad With Precious Metal, And Articles Thereof; Imitation Jewellery; Coin	443 476	539 632	96 156	22
8	40	Rubber and Articles Thereof	328 741	424 852	96 111	29
9	73	Articles of Iron or Steel	657 981	749 545	91 564	14
10	48	Paper and Paperboard; Articles of Paper Pulp, of Paper or of Paperboard	309 558	385 994	76 437	25

Source: Author's estimations based on SMART simulations, WITS

Table 4: Rise in Imports of Motor Cars in Malaysia post CPTPP post CPTPP

Product Code at 4digit	Product At 4digit	Product code At 6digit	Description of Product At 6digit	Imports from	Malaysia's Imports Before the CPTPP (US$1000)	Malaysia's Imports after the CPTPP (US$1000)	Change in Imports Post the CPTPP (US$1000)
8703	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 87.02), including station wagons and racing cars.	870323	Of a cylinder capacity exceeding 1,500 cc but not exceeding 3,000 cc	Japan	616 972	821 141	204 170
8703	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 87.02), including station wagons and racing cars.	870324	Of a cylinder capacity exceeding 3,000 cc	Japan	85 992	128 169	42 177
8703	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 87.02), including station wagons and racing cars.	870322	Of a cylinder capacity exceeding 1,000 cc but not exceeding 1,500 cc	Japan	37 826	52 801	14 974
8703	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 87.02), including station wagons and racing cars.	870332	Of a cylinder capacity exceeding 1,500 cc but not exceeding 2,500 cc	Japan	15 497	28 676	13 179
8703	Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 87.02), including station wagons and racing cars.	870333	Of a cylinder capacity exceeding 2,500 cc	Japan	4 933	6 852	1 919

Source: Author's estimations based on SMART simulations, WITS

It is interesting to note that the CPTPP may lead to higher imports of plastic waste and scarp under plastics and plastic products. This import can increase by around 35%, mainly coming from Japan, Singapore and Australia (Table 5).

Table 5: Increase in Imports of Plastic Waste and Scrap post CPTPP in Malaysia

Product Code at 4digit	Product description at 4digit	Imports from country	Malaysia's Imports before the CPTPP (US$1000) in 2016	Malaysia's Estimated Imports after the CPTPP (US$1000) in 2016	Change in Imports post CPTPP (US$1000) In 2016	Percentage Change in Imports Post CPTPP (%)
3915	Waste, parings and scrap, of plastics.	Japan	8 969	11 991	3 022	34
3916	Waste, parings and scrap, of plastics.	Singapore	3 284	4 454	1 169	36
3917	Waste, parings and scrap, of plastics.	Australia	2 184	2 971	787	36
3918	Waste, parings and scrap, of plastics.	Canada	1 028	1 430	401	39
3919	Waste, parings and scrap, of plastics.	Mexico	413	570	158	38
3920	Waste, parings and scrap, of plastics.	New Zealand	328	459	131	40
3921	Waste, parings and scrap, of plastics.	Vietnam	37	51	14	38
3922	Waste, parings and scrap, of plastics.	Chile	17	21	5	30
3923	Waste, parings and scrap, of plastics.	Brunei	3	4	1	30
	Total		16 263	21 951	5 688	35

Source: Author's estimations based on SMART simulations, WITS

5.2 Change in Malaysia's Exports Post CPTPP

While CPTPP may lead to a rise of US$2.5 billion in Malaysia's imports, the CPTPP may not offer the opportunity to Malaysia to increase its exports substantially. There are two reasons for this. Firstly, Malaysia already has existing free trade agreements with its major trading partners within the CPTPP, i.e., Japan, Singapore and Australia. The existing tariffs are already very low in these countries, vis-a-vis Malaysia so any further trade agreements will not boost the exports of Malaysia substantially. However, within these trade agreements Malaysia has a sensitive list whereby Malaysia's tariffs are not very low vis-a-vis these countries. Any new trade agreement may imply lowering tariffs of sensitive products of Malaysia and consequently rise in its imports of these products like vehicles and plastics.

Table 6 reports the estimated rise in Malaysia's exports post CPTPP, which is only 0.2% of its existing imports in 2016. Highest rise in absolute terms is expected in Malaysia's exports to Vietnam followed by Canada. While Vietnam is part of ASEAN FTA along with Malaysia, it may have reserved high tariffs in some of the product lines of interest to Malaysia. The CPTPP could therefore lead to a rise in

Malaysia's exports to Vietnam. Malaysia does not have an FTA with Canada and therefore there exists a potential for Malaysia to increase its exports to Canada post CPTPP. Appendix Table A.3 reports the product-wise and country-wise likely increase in exports of Malaysia (greater than US$ 1million) if it ratifies the CPTPP.

Table 6: Estimated Change in Malaysia's Exports post CPTPP

	Exports Before CPTPP (US$1000)	**Exports After CPTPP (US$1000)**	**Change in Exports post CPTPP (US$1000)**	**Percentage Change in Exports (%)**
Australia	6 445 327	6 406 655	-38 672	-0.6
Brunei	512 029	510 493	-1 536	-0.3
Canada	704 494	722 811	18 317	**2.6**
Chile	164 104	175 427	11 323	6.9
Japan	15 250 309	15 250 309	0	0
Mexico	1 890 946	1 898 510	7 564	0.4
New Zealand	731 767	731 035	-732	-0.1
Peru	122 405	129 260	6 855	5.6
Singapore	27 581 069	27 581 069	0	0
Vietnam	5 730 266	5 856 332	126 066	**2.2**
Total	59 132 717	59 261 902	129 185	0.2

Source: Author's estimations based on SMART simulations, WITS

Note: It should be noted that the export figures of Malaysia to CPTPP countries do not match with the import figures of CPTPP countries from Malaysia. One reason is imports figures include c.i.f. But in come cases like Malaysia's exports to Mexico and Mexico's imports from Malaysia has huge difference. Some studies account this difference to misinvoicing. https://wits.worldbank.org/wits/wits/witshelp/content/data_retrieval/T/Intro/B2.Imports_Exports_and_Mirror.htm

The results show that there will be a fall in exports from Malaysia to Australia post the CPTPP. Although this may appear counter-intuitive, this is very likely within a regional trading bloc. Any regional free trade agreement leads to a shift in the regional pattern of trade with imports into partner countries being shifted from less competitive to more competitive countries within the region. This is 'trade diversion' which always accompanies trade creation within the free trade area. In case of Australia, post CPTPP it is estimated that there will be trade diversion for Australia and it will source more imports from other competitive countries as compared to Malaysia, adversely impacting Malaysia's exports to Australia.

Table 7 reports results of trade creation and trade diversion for Australia post CPTPP. The results indicate that Australia's imports from Malaysia declines while they increase from Japan by 7%. There will be no new exports to Australia from Brunei, Chile, Malaysia, New Zealand and Singapore. Japan on the other hand will have new exports to Australia of US$ 711 million along with trade diversion of US$ 228 million.

Table 7: Australia's Trade Diversion from Malaysia post CPTPP

	Imports of Australia from Countries in 2016 (US$1000)	Trade Creation Effect post CPTPP (US$1000)	Trade Diversion Effect post CPTPP (US$1000)	Trade Total Effect post CPTPP (US$1000)	Percentage Change in Imports post CPTPP
Brunei	229 225	0	-10	-9	0
Canada	1 558 291	31 102	10 753	41 855	3
Chile	397 413	0	-1 764	-1 764	0
Japan	**14 391 496**	**711 581**	**228 517**	**940 098**	**7%**
Malaysia	**6 834 028**	**0**	**-38 780**	**-38 780**	**-1**
Mexico	1 866 294	32 429	24 806	57 236	3
New Zealand	5 593 377	0	-54 395	-54 395	-1
Peru	262 864	852	780	1 632	1
Singapore	5 117 498	0	-20 966	-20 966	0
Vietnam	3 313 112	6 435	-21 321	-14 886	0
Total	39 563 598	782 399	127 621	910 020	2

Source: Author's estimations based on SMART simulations, WITS

5.3: Implications of CPTPP on Malaysia's Merchandise Trade Balance

The simulations results reported in Table 8 present the results for the likely impact of CPTPP on Malaysia's merchandise trade balance. The results show that post CPTPP Malaysia's trade balance can worsen, falling from US$17.9 billion in 2016 to US$15.5 billion post CPTPP, i.e., a fall of around 13% in Malaysia's merchandise Balance of Trade is expected post CPTPP, if Malaysia joins the regional trade agreement.

Table 8: Impact of CPTPP on Malaysia's Merchandise Trade Balance

	Malaysia's Imports in 2016 (US$1000)	Malaysia's Exports in 2016 (US$1000)	Malaysia's Trade Balance in 2016 (US$1000)	Estimated Imports post CPTPP (US$1000)	Estimated Exports Post CPTPP (US$1000)	Trade Balance Post CPTPP (US$1000)	Change in BOT (US$1000)
Australia	3 695 967	6 445 327	2 749 360	3 766 828	6 408 753	2 641 925	-107 435
Brunei	156 307	512 029	355 722	159 172	510 687	351 515	-4 207
Canada	663 154	704 494	41 340	679 072	722 970	43 898	2 558
Chile	104 351	164 104	59 753	107 335	175 423	68 088	8 335
Japan	13 638 712	15 250 309	1 611 597	15 149 847	15 255 611	105 764	-1 505 833
Mexico	366 806	1 890 946	1 524 140	380 421	1 899 336	1 518 915	-5 225
New Zealand	684 386	731 767	47 381	708 549	731 020	22 471	-24 910
Peru	76 386	122 405	46 019	76 882	129 299	52 417	6 398
Singapore	17 254 412	27 581 069	10 326 657	17 830 565	27 581 069	9 750 504	-576 153
Vietnam	4 509 779	5 730 266	1 220 487	4 834 617	5 856 024	1 021 407	-199 080
Total	**41 150 259**	**59 132 717**	**17 982 458**	**43 693 289**	**59 270 193**	**15 576 904**	**-2 405 552**

Source: Author's estimations based on SMART simulations, WITS

5.4: Implications of CPTPP on Malaysia's Balance of Trade if Malaysia does not join CPTPP

It is often argued that a country which stays out of a regional trade agreement loses in terms of its exports as tariffs of the partner countries within the FTA are lower with respect to each-other compared to countries outside the FTA. This would imply a trade diversion away from countries out of the agreement and towards countries within the trade agreement, adversely impacting the exports of excluded countries.

However, the extent of trade diversion depends on whether the excluded country has an existing free trade agreement with its major trading partners, which are participating in the regional FTA. In case of Malaysia, it is found that Malaysia already has existing FTAs with Singapore, Japan and Australia. These three countries account for around 82% and 84% of Malaysia's exports and imports within CPTPP. Consequently, Malaysia may not lose much in terms of trade diversion by staying out of CPTPP.

Table 9 reports the estimated results, which show that if Malaysia decides not to join CPTPP, the loss of exports from Malaysia following the CPTPP will be only 0.09% of its existing exports to the CPTPP partner countries, which amounts to US$53.2 million.

Table 9: Impact of CPTPP on Malaysia's Exports if Malaysia does not join CPTPP

	Exports of Malaysia before CPTPP in 2016 (US$1000)	**Exports of Malaysia post CPTPP (US$1000)**	**Change in Exports of Malaysia post CPTPP (US$1000)**	**Percentage Loss in Exports of Malaysia post CPTPP if Malaysia does not join CPTPP**
Australia	6 445 327	6 436 304	-9 023	-0.14
Brunei	512 029	512 029	0	0
Canada	704 494	703 156	-1 339	-0.19
Chile	164 104	162 250	-1 854	-1.13
Japan	15 250 309	15 233 534	-16 775	-0.11
Mexico	1 890 946	1 889 622	-1323	-0.07
New Zealand	731 767	730 230	-1 537	-0.21
Peru	122 405	122 319	-85	-0.07
Singapore	27 581 069	27 581 069	0	0
Vietnam	5 730 266	5 696 458	-33 809	-0.59
Total	**59 132 717**	59 079 498	**-53 219**	**-0.09**

Source: Author's estimations based on SMART simulations, WITS

While Malaysia's exports to CPTPP partner countries will be adversely impacted marginally if it does not join CPTPP, with no changes to its tariffs, the imports will not change leading to a lower but a healthier trade balance than if it joins the CPTPP of US $ 17.92 billion (Table 10).

Table 10: Comparison of Change in Malaysia's Trade Balance with CPTPP and without CPTPP

	Malaysia's Trade Balance in 2016 (US$1000)	**Trade Balance Post CPTPP If Malaysia Joins CPTPP** (US$1000)	**Trade Balance Post CPTPP If Malaysia does not Join CPTPP** (US$1000)
Australia	2 749 360	2 639 827	2 740 337
Brunei	355 722	351 321	355 722
Canada	41 340	43 739	40 002
Chile	59 753	68 092	57 899
Japan	1 611 597	100 462	1 594 822
Mexico	1 524 140	1 518 089	1 522 816
New Zealand	47 381	22 486	45 844
Peru	46 019	52 378	45 933
Singapore	10 326 657	9 750 504	10 326 657
Vietnam	1 220 487	1 021 715	1 186 679
Total	**17 982 457**	**15 568 614**	**17 929 239**

Source: Author's estimations based on SMART simulations, WITS

6. Potential Tariff Revenue Loss to Malaysia of joining CPTPP

As discussed in section 3, on average Malaysia has higher import tariffs as compared to the other CPTPP countries. This implies that the tariff revenue loss to Malaysia will also be higher. Using the WITS simulation, the import tariff revenue loss of Malaysia is estimated. The results are reported in Appendix Table A.4. The total import tariff revenue loss to Malaysia by entering the CPTPP will be of around US$1.6 billion per year, of which 26% of tariff revenue loss will be from removing custom duties on vehicles followed by plastics and articles thereof and machinery and mechanical appliances (Table 11).

Table 11: Potential Tariff Revenue Loss to Malaysia if it ratifies the CPTPP

S.No	HS		**Total Tariff Revenue Loss (US$1000)**	**% of Total Tariff Revenue Loss**
		Total	**-1 643 003**	
1	87	vehicles other than railway or tramway rolling stock, and parts and accessories thereof	-422 413	26
2	39	plastics and articles thereof	-150 164	9
3	84	nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	-132 047	8
4	72	iron and steel	-122 065	7
5	85	electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	-113 961	7
6	40	rubber and articles thereof	-82 654	5
7	76	aluminium and articles thereof	-79 676	5
8	73	articles of iron or steel	-68 868	4
9	10	Cereals	-49 474	3
10	48	paper and paperboard; articles of paper pulp, of paper or of paperboard	-47 839	3

Source: Author's estimations based on SMART simulations, WITS

7. Conclusion and the Way Forward

In the scenario of a growing number of bilateral and regional free trade agreements, mega regional trade agreements like the CPTPP pose new challenges for the developing countries. Not only do these agreements stretch trade liberalization beyond the existing limits, they take away important policy space of the governments for regulating their imports to protect their domestic industry and to promote their exports in order to generate employment. Custom duties are an important policy tool in the hands of the governments which not only generate revenue but also leverage domestic production and employment. In this context, this paper estimates the impact of the CPTPP and associated full trade liberalization on Malaysia's merchandise balance of trade.

Using SMART simulations, the results show that if Malaysia enters the CPTPP it will experience a surge in its imports amounting to around US$2.5 billion, i.e., a 6% rise in its imports while its exports rise only marginally by around 0.2% from CPTPP countries. The reason for this being that Malaysia already has existing FTAs with its major export markets in the CPTPP namely Japan, Singapore and Australia which together account for 84% of Malaysia's exports to CPTPP. The associated trade balance of Malaysia will fall by US$2.4 billion if Malaysia ratifies the CPTPP, which is 13% of its

existing trade balance. If Malaysia does not ratify the CPTPP, Malaysia's trade balance will fall marginally by 0.2% (US$53 million).

More importantly, remaining out of the CPTPP not only has a lower adverse impact on Malaysia' trade balance, it also provides the much-needed policy space to Malaysia for designing its industrial and trade policies. With the advent of the digital industrial revolution developing countries are fast losing their trade competitiveness, even in their traditional export sectors. The rising digital divide is providing a competitive edge to developed countries as they are steadily increasing the digital content in all stages of their manufacturing production. For example, Big data analytics along with artificial intelligence is being used in the pre-production stage; robotics and 3D printing in the production stage and e-commerce and internet of things in the post production stage.

The rising use of digital technologies and increasing product digitalization require developing countries to re-think their existing industrial and trade policies with the objective of increasing their trade competitiveness through higher use of digital technologies and digital services[5]. The CPTPP chapters have some binding commitments especially in the area of zero customs duties on electronic transmissions which has the potential of eroding all the negotiated industrial tariffs in the trade agreements whether at the regional level or at the WTO[6]. The growing trade in electronic transmissions implies that the core resources of digital industrial revolution namely data, software and computer-aided design files (CAD files) used in 3D printing are increasingly being electronically transmitted. This may provide higher market access to the foreign suppliers in the developing countries as they will be able to manufacture products within the national boundaries of the developing counties without their physical presence. They can electronically transmit the software and CAD files and 3D print the currently manufactured products. While 3D printing is still considered to be catering to the niche markets, its market has grown annually by 22% in the period 2014-2018[7]. It is estimated that if current growth of investments in 3D printing continues, 50% of the manufactured goods will be 'printed' in 2060 and if investments in 3D printing doubles, this target will be achieved in 2040 (ING, 2017)[8]. This will wipe out almost 40% of cross-border physical global trade. The fourth digital industrial revolution is fast changing the landscape of international trade. While traditional indicators of trade competitiveness like balance of trade are still important inputs into the policy making of developing countries, there is a need to go beyond raising the trade balance to preserving policy space for regulating trade in the digital world.

[5] Banga (2018)
[6] For detailed discussion on this see Banga (2019)
[7] Statista (https://www.statista.com/statistics/796237/worldwide-forecast-growth-3d-printing-market/)
[8] ING (2017), "3D printing: a threat to global trade" https://www.ing.nl/media/ING_EBZ_3d-printing_tcm162-131996.pdf

References

Banga Rashmi (2014). Trans Pacific Partnership Agreement (TPPA): Implications for Domestic Value Added Trade of Malaysia. background paper, no. RVC-12, UNCTAD.

Banga Rashmi. (2017). Rising Product Digitalization and Losing Trade Competitiveness. UNCTAD/GDS/ECIDC/2017/3, UNCTAD, Geneva.

Banga Rashmi. (2019). Growing Trade in Electronic Transmissions: Implications for the South. UNCTAD Research Paper No. 29 UNCTAD/SER.RP/2019/1, UNCTAD.

Panagariya, A. and Duttagupta (2001). The 'Gains' from Preferential Trade Liberalization in the CGEs: Where Do They Come From? in S. Lahiri, ed. Regionalism and Globalization: Theory and Practice, Routledge. London, 39-60.

Peter A. Petri, Michael G. Plummer, Shujiro Urata and Fan Zhai, (October 2017). Going It Alone in the Asia-Pacific: Regional Trade Agreements Without the United States. Working Paper, PIIE, pp 17-10.

Peterson Institute for International Economics. (2012). Policy Brief by Peter A. Petri, and Michael G. Plummer. The Trans-Pacific Partnership and Asia-Pacific Integration: Policy Implications. Johns Hopkins University and East-West Center, June 2012.

Raza, W., Grumiller, J, Taylor, L., Tröster, B., von Arnim, R. (2014). Assess TTIP: Assessing the Claimed Benefits of the Transatlantic Trade and Investment Partnership. Vienna: Austrian Foundation for Development Research.

Taylor, L., and R. von Arnim. (2006). Computable General Equilibrium Models of Trade Liberalization: The Doha Debate, New School for Social Research. Oxford: Oxfam GB.

World Bank (2018). Economic and Distributional Impacts of Comprehensive and Progressive Agreement for Trans-Pacific Partnership: The case of Vietnam. Washington, D.C: World Bank Group.

Appendix

Table A.1 Malaysia's Exports and Imports at the Product-Level to CPTPP Countries and their Share in Malaysia's Global Exports and Imports in 2017

ProductCode		Imports of Malaysia from CPTPP countries IN 2017 (US$1000)	Share of CPTPP Countries in Malaysia's Global Imports in 2017 (%)	Exports of Malaysia in 2017 to CPTPP Countries (US$1000)	Share of CPTPP Countries in Malaysia's Global Exports
1	live animals	38 048	61	172 563	95
2	meat and edible meat offal	323 009	35	23 551	64
3	fish and crustaceans, molluscs and other aquatic invertebrates	191 410	24	288 853	57
4	dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	588 000	67	159 577	34
5	products of animal origin, not elsewhere specified or included	13 581	52	1 134	13
6	live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	219	2	114 702	83
7	edible vegetables and certain roots and tubers	87 784	9	133 486	50
8	edible fruit and nuts; peel of citrus fruit or melons	105 660	15	79 515	45
9	coffee, tea, maté and spices	99 586	19	66 249	53
10	cereals	400 916	28	9 609	72
11	products of the milling industry; malt; starches; inulin; wheat gluten	82 135	20	42 856	45
12	oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	108 210	18	19 230	36
13	lac; gums, resins and other vegetable saps and extracts	5 612	10	1 452	13
14	vegetable plaiting materials; vegetable products not elsewhere specified or included	24	1	24 800	37
15	animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	102 635	6	1 604 384	12
16	preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	25 072	17	122 689	44
17	sugars and sugar confectionery	62 043	6	69 584	30
18	cocoa and cocoa preparations	66 243	7	510 882	40
19	preparations of cereals, flour, starch or milk; pastrycooks' products	183 068	25	391 587	29
20	preparations of vegetables, fruit, nuts or other parts of plants	26 984	8	75 468	46
21	miscellaneous edible preparations	236 944	25	394 106	29
22	beverages, spirits and vinegar	168 937	27	458 338	59

23	residues and waste from the food industries; prepared animal fodder	123 299	11	159 634	37
24	tobacco and manufactured tobacco substitutes	29 994	12	78 789	32
25	salt; sulphur; earths and stone; plastering materials, lime and cement	82 604	19	157 726	48
26	ores, slag and ash	391 275	21	72 332	5
27	mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	9 002 963	36	17 063 108	52
28	inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	847 739	37	249 868	29
29	organic chemicals	936 875	26	734 775	19
30	pharmaceutical products	155 371	12	107 151	46
31	fertilisers	250 619	25	192 812	34
32	tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	277 444	33	272 222	40
33	essential oils and resinoids; perfumery, cosmetic or toilet preparations	210 055	21	133 412	40
34	soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modelling pastes, 'dental waxes' and dental preparation	183 855	30	171 266	18
35	albuminoidal substances; modified starches; glues; enzymes	58 702	20	45 819	26
36	explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	3 495	16	3 925	28
37	photographic or cinematographic goods	45 261	41	37 162	19
38	miscellaneous chemical products	462 524	15	843 582	20
39	plastics and articles thereof	1 903 226	25	2 402 583	32
40	rubber and articles thereof	556 109	14	866 224	12
41	raw hides and skins (other than furskins) and leather	4 476	5	4 774	18
42	articles of leather; saddlery and harness; travel goods, handbags and similar containers; articles of animal gut (other than silkworm gut)	51 367	10	30 420	48
43	furskins and artificial fur; manufactures thereof	4 311	11	3 138	7
44	wood and articles of wood; wood charcoal	136 572	20	1 147 275	33
45	cork and articles of cork	1 775	64	8	3
46	manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	2 319	30	665	49
47	pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard	59 538	32	565	26
48	paper and paperboard; articles of paper pulp, of paper or of paperboard	348 004	19	479 009	52

49	printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans	34 680	17	82 203	25
50	silk	35	0	481	5
51	wool, fine or coarse animal hair; horsehair yarn and woven fabric	20 594	73	4 764	15
52	cotton	84 979	19	46 419	18
53	other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	153	3	369	7
54	man-made filaments; strip and the like of man-made textile materials	43 365	10	67 514	16
55	man-made staple fibres	29 812	19	84 453	26
56	wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	22 348	12	111 046	45
57	carpets and other textile floor coverings	2 348	2	13 247	74
58	special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	2 943	6	4 352	26
59	impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use	21 158	12	17 430	23
60	knitted or crocheted fabrics	9 382	7	28 837	17
61	articles of apparel and clothing accessories, knitted or crocheted	83 899	9	241 091	25
62	articles of apparel and clothing accessories, not knitted or crocheted	73 566	11	59 223	17
63	other made-up textile articles; sets; worn clothing and worn textile articles; rags	151 375	32	44 593	22
64	footwear, gaiters and the like; parts of such articles	136 932	22	61 365	41
65	headgear and parts thereof	3 587	12	24 830	64
66	umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof	159	1	442	48
67	prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair	183	1	734	48
68	articles of stone, plaster, cement, asbestos, mica or similar materials	43 532	15	345 385	75
69	ceramic products	27 099	8	102 953	40
70	glass and glassware	291 702	33	249 194	26
71	natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	1 237 241	28	893 944	30
72	iron and steel	1 346 723	26	460 179	20
73	articles of iron or steel	840 071	28	1 007 867	49
74	copper and articles thereof	1 407 777	41	477 569	22
75	nickel and articles thereof	190 313	69	35 232	6
76	aluminium and articles thereof	407 403	16	761 388	24
78	lead and articles thereof	16 248	19	24 987	11
79	zinc and articles thereof	94 221	22	74 685	20

80	tin and articles thereof	41 715	22	110 816	19
81	other base metals; cermets; articles thereof	16 113	23	11 153	36
82	tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	171 527	35	74 665	37
83	miscellaneous articles of base metal	56 889	13	132 442	48
84	nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	4 964 204	22	6 366 778	27
85	electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	13 745 453	25	20 728 599	30
86	railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electromechanical) traffic signalling equipment of all kinds	19 685	20	3 260	5
87	vehicles other than railway or tramway rolling stock, and parts and accessories thereof	1 515 998	28	299 438	18
88	aircraft, spacecraft, and parts thereof	194 158	6	520 819	26
89	ships, boats and floating structures	52 979	4	62 126	25
90	optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	1 535 436	28	2 039 255	26
91	clocks and watches and parts thereof	258 561	47	187 344	75
92	musical instruments; parts and accessories of such articles	8 466	14	33 493	27
93	arms and ammunition; parts and accessories thereof	121	1	58	1
94	furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like; prefabricated buildings	115 670	11	779 333	30
95	toys, games and sports requisites; parts and accessories thereof	98 704	18	106 328	30
96	miscellaneous manufactured articles	79 318	22	136 590	38
97	works of art, collectors' pieces and antiques	643	4	718	26
	total/average	48 545 358	21	66 942 848	33

Source: Author’s estimations based on SMART simulations, WITS

Table A. 2 : **Change in Malaysia's Imports post the CPTPP -Product-Wise**

Chapter		**Imports Before CPTPP** (US$1000) **(2016)**	**Imports after CPTPP** (US$1000)	**Change in Imports post CPTPP** (US$1000)
87	vehicles other than railway or tramway rolling stock, and parts and accessories thereof	1 794 805	2 436 822	642 017
39	plastics and articles thereof	1 325 380	1 562 165	236 785
84	nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	1 353 111	1 585 407	232 296
85	electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	994 438	1 180 381	185 943
72	iron and steel	918 529	1 097 007	178 478
76	aluminium and articles thereof	260 588	373 546	112 958
71	natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	443 476	539 632	96 156
40	rubber and articles thereof	328 741	424 852	96 111
73	articles of iron or steel	657 981	749 545	91 564
48	paper and paperboard; articles of paper pulp, of paper or of paperboard	309 558	385 994	76 437
70	glass and glassware	247 616	304 324	56 709
27	mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	5 560 478	5 613 275	52 797
35	albuminoidal substances; modified starches; glues; enzymes	38 742	81 794	43 052
32	tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	147 642	189 642	42 001
21	miscellaneous edible preparations	250 262	291 053	40 791
10	Cereals	92 746	129 397	36 651
28	inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth	66 414	97 758	31 345
44	wood and articles of wood; wood charcoal	50 993	80 434	29 441
38	miscellaneous chemical products	139 007	162 121	23 113
83	miscellaneous articles of base metal	53 682	75 281	21 599
69	ceramic products	26 515	47 526	21 011

96	miscellaneous manufactured articles	56 965	74 110	17 145
94	furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like; prefabricated buildings	66 699	82 692	15 993
74	copper and articles thereof	50 445	64 367	13 922
82	tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	155 662	169 474	13 811
18	cocoa and cocoa preparations	52 634	65 106	12 472
34	soap, organic surface-active agents, washing preparations, lubricating preparations, artificial	81 653	93 083	11 430
56	wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	29 611	40 071	10 460
68	articles of stone, plaster, cement, asbestos, mica or similar materials	28 595	38 922	10 327
52	Cotton	56 599	66 199	9 600
81	other base metals; cermets; articles thereof	30 128	38 961	8 833
54	man-made filaments; strip and the like of man-made textile materials	35 372	42 783	7 411
19	preparations of cereals, flour, starch or milk; pastrycooks' products	105 493	112 774	7 281
63	other made-up textile articles; sets; worn clothing and worn textile articles; rags	23 545	30 163	6 618
80	tin and articles thereof	64 355	70 746	6 391
25	salt; sulphur; earths and stone; plastering materials, lime and cement	7 082	11 799	4 717
17	sugars and sugar confectionery	17 822	22 138	4 316
22	beverages, spirits and vinegar	9 984	14 263	4 279
95	toys, games and sports requisites; parts and accessories thereof	12 915	17 019	4 104
15	animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable	40 656	43 982	3 326
55	man-made staple fibres	20 047	23 192	3 144
90	optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	23 566	26 481	2 915
60	knitted or crocheted fabrics	8 744	11 428	2 684
37	photographic or cinematographic goods	8 976	11 106	2 130

49	printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans	8 993	11 028	2 035
20	preparations of vegetables, fruit, nuts or other parts of plants	22 090	24 122	2 031
30	pharmaceutical products	8 000	9 740	1 740
58	special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	4 467	5 959	1 491
86	railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electromechanical) traffic signalling equipment of all kinds	9 162	10 580	1 418
89	ships, boats and floating structures	5 524	6 520	996
59	impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use	2 044	2 884	840
29	organic chemicals	7 746	8 562	816
79	zinc and articles thereof	4 050	4 847	796
36	explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	3 492	4 102	610
92	musical instruments; parts and accessories of such articles	1 749	2 278	529
57	carpets and other textile floor coverings	1 568	2 062	494
46	manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	843	1 284	442
78	lead and articles thereof	1 070	1 365	295
16	preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	6 607	6 880	273
64	footwear, gaiters and the like; parts of such articles	125	344	218
12	oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	2 039	2 231	192
67	prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair	372	494	122
91	clocks and watches and parts thereof	314	436	122
93	arms and ammunition; parts and accessories thereof	290	374	83
66	umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof	179	262	83

62	articles of apparel and clothing accessories, not knitted or crocheted	483	559	76
61	articles of apparel and clothing accessories, knitted or crocheted	58	120	62
88	aircraft, spacecraft, and parts thereof	106	153	47
45	cork and articles of cork	137	172	35
11	products of the milling industry; malt; starches; inulin; wheat gluten	125	138	13
97	works of art, collectors' pieces and antiques	64	72	9
31	Fertilisers	101	105	3
50	Silk	14	17	3
	Total	16 122 309	18 665 339	**2 543 030**

Source: Author's estimations based on SMART simulations, WITS

Table A. 3 : **Change in Malaysia's Exports post the CPTPP -Product-Wise and Country Wise**

	Product Code	product description	Exports Before the CPTPP (US$1000)	Exports After the CPTPP (US$1000)	Export Change In Revenue post CPTPP	% Change
Canada	40	rubber and articles thereof	86 078	96 408	10 329	12
Canada	61	articles of apparel and clothing accessories, knitted or crocheted	16 774	22 477	5 703	34
Canada	94	furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like; prefabricated buildings	74 531	79 003	4 472	6
Canada	85	electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	218 499	220 684	2 185	1
Canada	62	articles of apparel and clothing accessories, not knitted or crocheted	5 059	6 931	1 872	37
Canada	15	animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	17 530	19 108	1 578	9
Chile	85	electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and	30 230	32 346	2 116	7
Chile	40	rubber and articles thereof	24 197	25 649	1 452	6
Chile	15	animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	18 807	19 936	1 128	6
Chile	94	furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like; prefabricated buildings	19 531	20 508	977	5

Chile	84	nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	9 368	10 117	749	8
Japan	44	wood and articles of wood; wood charcoal	730 589	752 507	21 918	3
Japan	4	dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	9 350	26 929	17 579	188
Japan	18	cocoa and cocoa preparations	159 314	162 500	3 186	2
Japan	19	preparations of cereals, flour, starch or milk; pastrycooks' products	52 782	57 004	4 223	8
Mexico	85	electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and	1 266 394	1 268 261	1 867.7	0.1
Mexico	84	nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	239 887	241 066	1 179.5	0.5
Mexico	69	ceramic products	5 426	7 922	2 496	46
Mexico	44	wood and articles of wood; wood charcoal	29 196	31 531	2 336	8
Mexico	21	miscellaneous edible preparations	7 950	9 699	1 749	22
Mexico	40	rubber and articles thereof	31 108	32 664	1 555	5
Mexico	39	plastics and articles thereof	28 529	29 670	1 141	4
Mexico	34	soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modelling pastes, ‘dental waxes’ and dental	8 599	9 631	1 032	12
Mexico	15	animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	8 881	9 947	1 066	12
Peru	85	electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and	29 088	31 124	2 036	7

Peru	40	rubber and articles thereof	14 880	16 071	1 190	8
Vietnam	24	tobacco and manufactured tobacco substitutes	18 538	91 765	73 226	395
Vietnam	55	man-made staple fibres	23 933	31 352	7 419	31
Vietnam	84	nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	523 520	528 755	5 235	1

Source: Author's estimations based on SMART simulations, WITS

Note: For estimating impact on exports, the exports figures of Malaysia are considered, which may be different from the import figures of the partner countries from Malaysia. Under Tobacco and manufactured tobacco substitutes, Malaysia's exports of HS 240220 (cigarettes containing tobacco) and HS240290 (other) increase.

Table A.4: Total Tariff Revenue Loss to Malaysia Post CPTPP

		Total Tariff Revenue Loss (US$1000)
	Total	**-1 643 003**
87	vehicles other than railway or tramway rolling stock, and parts and accessories thereof	-422 413
39	plastics and articles thereof	-150 164
84	nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	-132 047
72	iron and steel	-122 065
85	electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	-113 961
40	rubber and articles thereof	-82 654
76	aluminium and articles thereof	-79 676
73	articles of iron or steel	-68 868
10	cereals	-49 474
48	paper and paperboard; articles of paper pulp, of paper or of paperboard	-47 839
71	natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin	-44 579
70	glass and glassware	-43 342
32	tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks	-32 950
27	mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	-28 383
21	miscellaneous edible preparations	-24 030
44	wood and articles of wood; wood charcoal	-17 594
83	miscellaneous articles of base metal	-13 884

38	miscellaneous chemical products	-13 403
28	inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	-11 940
35	albuminoidal substances; modified starches; glues; enzymes	-11 516
74	copper and articles thereof	-9 528
96	miscellaneous manufactured articles	-9 323
94	furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and the like; prefabricated buildings	-9 262
82	tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	-8 567
34	soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modelling pastes, 'dental waxes' and dental preparation	-8 328
68	articles of stone, plaster, cement, asbestos, mica or similar materials	-7 575
18	cocoa and cocoa preparations	-7 532
69	ceramic products	-7 239
56	wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	-6 006
52	cotton	-6 005
20	preparations of vegetables, fruit, nuts or other parts of plants	-5 817
63	other made-up textile articles; sets; worn clothing and worn textile articles; rags	-4 611
81	other base metals; cermets; articles thereof	-4 431
19	preparations of cereals, flour, starch or milk; pastrycooks' products	-4 091
54	man-made filaments; strip and the like of man-made textile materials	-3 826
80	tin and articles thereof	-3 538
17	sugars and sugar confectionery	-3 063
95	toys, games and sports requisites; parts and accessories thereof	-2 857
25	salt; sulphur; earths and stone; plastering materials, lime and cement	-2 198
22	beverages, spirits and vinegar	-2 152
55	man-made staple fibres	-2 112
15	animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	-2 087
37	photographic or cinematographic goods	-1 683
49	printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans	-1 601
90	optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	-1 568
60	knitted or crocheted fabrics	-1 531
58	special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	-843
89	ships, boats and floating structures	-764

79	zinc and articles thereof	-600
59	impregnated, coated, covered or laminated textile fabrics; textile articles of a kind suitable for industrial use	-503
86	railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electromechanical) traffic signalling equipment of all kinds	-489
29	organic chemicals	-392
30	pharmaceutical products	-352
92	musical instruments; parts and accessories of such articles	-307
36	explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	-301
46	manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	-204
57	carpets and other textile floor coverings	-172
78	lead and articles thereof	-166
16	preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	-130
12	oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	-94
62	articles of apparel and clothing accessories, not knitted or crocheted	-80
91	clocks and watches and parts thereof	-68
67	prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair	-68
66	umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof	-44
93	arms and ammunition; parts and accessories thereof	-29
64	footwear, gaiters and the like; parts of such articles	-27
45	cork and articles of cork	-21
88	aircraft, spacecraft, and parts thereof	-19
61	articles of apparel and clothing accessories, knitted or crocheted	-10
97	works of art, collectors' pieces and antiques	-3
11	products of the milling industry; malt; starches; inulin; wheat gluten	-2
50	silk	-2
31	fertilisers	-1

Source: Author’s estimations based on SMART simulations, WITS