

An Analysis of Malaysian Palm Oil Exports to Selected TPPA Member Countries

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ABSTRACT

Malaysia officially signed the Trans-Pacific Partnership Agreement (TPPA) in February 2016. The trade partnership between Malaysia and 11 other participating countries is expected to enlarge Malaysian trade volume and consequently help the country leap-frog towards becoming a high income nation. A study to assess the potential economic impact of TPPA on the Malaysian economy has been done, but none on an in-depth empirical analysis of its impact on the Malaysian palm oil industry. This ex-ante study shows that the Malaysian palm oil industry will gain via TPPA. The elimination or reduction of trade barriers offered under TPPA will allow Malaysia to expand her palm oil market share internationally. The largest export increment due to TPPA was found in the study to be in the palm oil exports to Mexico, followed by Canada. However, no significant change was found in the exports of palm oil to Peru and the United States of America as both countries have currently imposed zero import duties on processed palm oil from Malaysia.

Keywords: TPPA, economic impact, Malaysian palm oil.

INTRODUCTION

Malaysia is one of the developing countries that practise an open economy, wherein her total trade is larger than the size of her gross domestic product (GDP). In 2015, Malaysia's total trade grew by 1.2% from RM 1.45 trillion in 2014 to reach RM 1.47 trillion, whereas GDP for that year was around

RM 1.16 trillion. Strong uptake from major trading partners, such as the Association of South-east Asian Nations (ASEAN) member countries, the European Union (EU), the United States of America (USA), Australia, Taiwan and China, has contributed to the sturdy growth in Malaysia's export performance. Moreover, trade with free trade agreement

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(FTA) partner countries also added to the expansion in exports. According to the Malaysia External Trade Development Corporation (MATRADE), 63.1% of Malaysia's total exports in 2015 were accounted for by the FTA countries (MATRADE, 2016).

From its name, it may be ascertained that FTA is a trade agreement involving co-operation between at least two countries to reduce trade barriers, such as import tariffs and quotas. FTA is aimed at providing the means to achieve quicker and greater market access between the partners of the agreement. To date, Malaysia has signed and is implementing seven bilateral FTA and six regional FTA. The bilateral FTA were signed with Japan, Pakistan, New Zealand, Chile, India, Australia and Turkey. Together with her ASEAN partners, Malaysia is party to the ASEAN Free Trade Area (AFTA), ASEAN-Japan Close Economic Partnership Agreement (AJCEP), ASEAN-Korea Free Trade Agreement (AKFTA), ASEAN-China Free Trade Agreement (ACFTA), ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) and ASEAN-India Free Trade Agreement. Besides the ASEAN trade agreements, Malaysia also participates in D-8 PTA¹, the on-going Regional Comprehensive Economic Partnership (RCEP), the Framework Agreement on Trade Preferential System among the member states of the Organisation of the Islamic Conference (TPS-OIC), with the latest being the Trans-Pacific Partnership Agreement (TPPA). Together

with 11 other countries, namely Australia, Brunei, Canada, Chile, Japan, Mexico, New Zealand, Peru, Singapore, USA and Vietnam, Malaysia signed TPPA in February 2016 (MITI, 2016).

TPPA has its origin from the Pacific 4 (P4) FTA signed by New Zealand, Singapore, Chile and Brunei Darussalam. P4 FTA was signed in 2005 and came fully into force in 2009. P4 was then expanded and the TPPA negotiations began with the entry of USA, Australia, Peru and Vietnam in March 2010. The scope of the agreement has been expanded to include new issues with the goal of developing a comprehensive and high standard 21st century FTA. The first round of TPPA negotiations was held in March 2010, and Malaysia became the ninth TPPA member in October 2010. In December 2012, Canada and Mexico joined TPPA, followed by Japan in July 2013. The membership in TPPA is voluntary, but open only to APEC member economies. The initiative of TPPA is to establish FTA among 12 countries, with a market of 800 million people, with a combined GDP of USD 27.5 trillion.

Like the other FTA, the participation of Malaysia in TPPA is expected to enhance economic integration within the Asia-Pacific region and enable Malaysia to engage closely with important trading partners, such as USA, Canada, Mexico and Peru, with which Malaysia currently does not have any structural framework such as trade agreements. However, the involvement of Malaysia in TPPA has raised some issues, and these have been debated by many Malaysians, NGO and other interest groups. In fact, TPPA is the first FTA to be tabled, debated and voted in the Malaysian Parliament. The opponents of TPPA believe that TPPA will drive up the cost of

certain products and undermine the country's sovereignty. A study by PwC Advisory Services Sdn Bhd, however, revealed that the benefits of TPPA outweigh the costs. The study which employed a Computable General Equilibrium (CGE) model to simulate the potential economic costs and benefits of Malaysia's participation and non-participation in TPPA found that Malaysia's GDP is projected to increase by USD 107 billion to USD 211 billion over the period 2018-2027, and this would raise GDP growth by 0.60% to 1.15% points in 2027. This projection was based on the assumption that all tariffs will be eliminated and the non-tariff measures be reduced by 25%-50% across the 12 prospective TPPA member countries (PwC Advisory, 2015).

In regard to the benefits of TPPA in terms of contributing to Malaysia's trade performance, this article examines the changes in the share of Malaysian palm oil exports to selected members of TPPA, *i.e.* Peru, Mexico, Canada and USA. These four countries were chosen due to the fact that they have yet to sign any trade agreement with Malaysia. The other TPPA member countries – Australia, Brunei, Chile, Japan, New Zealand, Singapore and Vietnam – have already signed FTA with Malaysia either bilaterally or under the ambit of ASEAN; thus, they have greater market accessibility through tariff elimination and/or reduction.

The participation of Malaysia in TPPA has raised various issues. One of the advantages of TPPA is the reduction and/or elimination of trade barriers offered by participating countries. Participation in TPPA is expected to benefit Malaysia and will help to enhance Malaysian exports. However, the impact of removal of the trade barriers on Malaysian

¹ Group of Developing Eight (D-8) comprises eight Islamic countries, *i.e.* Bangladesh, Indonesia, Iran, Malaysia, Egypt, Nigeria, Pakistan and Turkey. The D-8 Preferential Tariff Agreement (PTA) is designed to gradually reduce tariffs and other barriers to trade on specific goods in order to promote intra-trade among D-8 members.

commodity exports remains uncertain until the entry-into-force (EIF) of TPPA in 2018. There have been a number of studies assessing the potential impact of TPPA to Malaysia.

However, to the best of our knowledge, there is no study assessing the direct impact of TPPA on the export performance of Malaysian palm oil. Therefore, there is a need to analyse and quantify the impact of Malaysia's participation in TPPA on her palm oil export performance to selected TPPA member countries. The objectives of this article are to estimate the impact of TPPA tariff reduction and/or elimination on the share of Malaysian palm oil exports to the above-mentioned countries. Two specific questions are examined: firstly, will a reduction in the import tariff of the four above-mentioned countries under TPPA increase import share from Malaysia? Secondly, by how much will the imports increase upon the EIF of TPPA?

LITERATURE REVIEW

Most of the previous studies relating to the liberalisation of trade suggest that involvement in bilateral or regional FTA does contribute positively to the growth of the economy. Mai *et al.* (2005) highlighted the potential benefits of an Australia-China FTA, which concluded that for both Australia and China FTA yielded increased output and was welfare-enhancing. FTA was estimated to boost the real GDP and real Gross National Product (GNP). Real GDP increased in both countries due to increased capital, improved productivity and better utilisation of resources. The Australian industries that benefited most from FTA were grains, wool, wool tops, minerals and non-ferrous metals, while Chinese industries that

benefited most were manufacturing industries, especially textiles (Mai *et al.*, 2005). Other studies on trade agreements also suggest that the creation of trade pacts enhances economic integration of a country and directly improves economic growth as a whole. For example, the involvement of Australia in AANZFTA has boosted Australia's total trade. AANZFTA is the biggest FTA that Australia has concluded, with ASEAN and New Zealand together accounting for 20% of Australia's total trade in goods and services. Worth AUD112 billion, this was larger than Australia's trade with any single country (Obradovic, 2012). The positive results of the trade agreement towards a country's development are also found in the partnership between India and Sri Lanka. In 1998, India and Sri Lanka signed the Indo-Lanka Free Trade Agreement (ILFTA). Pursuant to this agreement, India's exports to Sri Lanka grew substantially by 458% from USD 636 million in 1999 to USD 2916 million in 2008. At the same time, Sri Lanka's exports to India grew by 500% in the period from 1999 to 2003 (Suhail and Sreejesh, 2011).

The development of FTA and trade liberalisation always brings benefits to export performance. Francois *et al.* (2013) stated that liberalising trade can bring positive significant economic gains for EU and USA. Total exports would increase by 6% in EU and 8% in US. A key part of trans-Atlantic liberalisation is the reduction of non-tariff barriers, which benefits both countries in terms of the increased level of their economic activity and productivity. Meanwhile, in a study assessing the effect of FTA on exports from Lao People's Democratic Republic (Lao PDR) also found that reducing import tariffs based on the World Trade Organisation (WTO)

strongly supports trade creation, while several FTA made between Lao PDR and her major trading partners are important to support export growth (Vanhnalat *et al.*, 2015).

In 2015, total exports of the world's oils and fats amounted to 84.11 million tonnes, an increase by 8.60% from that of the previous year. Out of this total, 57.4% was made up of palm oil exports, 15.0% of soyabean oil exports, and the rest the exports of other oils and fats (ISTA Mielke GmbH, 2015). The share of palm oil exports is the largest due to the plentiful supply of palm oil. Among the major oilseed crops, oil palm is the most productive in the world. In terms of land usage, oil palm requires only 0.26 ha of land to produce 1 t of oil, whereas soyabean, sunflower and rapeseed require 2.22, 2.00 and 1.52 ha, respectively, to produce the same amount (Anon, 2016). From 2011 to 2015, the world's exports of palm oil grew by 7.25%, and this growth momentum is expected to last due to the rising world population and resultant demand. Despite its wide applications, palm oil has been most intensively used as a frying oil in many countries. Owing to this purpose, palm oil is highly demanded in the world's most populous countries, such as China, India, USA and Indonesia. On average, for the past five years (2011-2015), China has been the main buyer of Malaysian palm oil with a share of 18.6%, followed by India (13.8%), the EU countries (12.9%), Pakistan (7.0%), and USA (5.3%). Purchase of palm oil by these major importing countries is essential in stabilising the world's crude palm oil (CPO) prices. A weaker demand for palm oil from China, India and the EU countries will significantly and negatively affect CPO prices. Therefore, it is important for Malaysia to formulate

new strategies to intensify the exports of palm oil.

There are many rules, regulations and guidelines governing the entry of palm oil into overseas markets. For instance, the enforcement of tighter Chinese Inspection and Quarantine (CIQ) rules in China in early 2013, which requires all edible oil exporters to ensure that their shipment quality meets the landed quality specifications, is seen to be one of the factors that spell trouble for palm oil export growth (Reuters, 2012). Another effort to limit the entry of palm oil by the other countries is by increasing the tax rate and import duties. In early 2016, the governing party of France proposed an additional tax on palm oil. The implementation of the palm oil tax was proposed in response to allegations of deforestation and destruction of biodiversity by the oil palm industry. These allegations are inaccurate and the proposal has been rejected. This kind of trade barriers has limited the growth of palm oil exports. However, the formulation of or amendments to trade barriers can be negotiated via trade agreements.

The participation of Malaysia in TPPA is said to be a positive move for the economy of Malaysia. However, in terms of palm oil trading, the impact is expected to be not as great as the impact to the overall economy. Among the other 11 participating countries, only four; namely Canada, Mexico, Peru and USA, have yet to sign any trade agreement with Malaysia. The other TPPA member countries already have FTA signed with Malaysia, either bilaterally or regionally through ASEAN. The total Malaysian palm oil exports to these four countries in 2015 were 718 657 t, which was equivalent to 4.1% of the total Malaysian palm oil exports in that year (MPOB, 2016). Out of this portion, about

97.9% had been exported to USA, 1.6% to Canada, 0.3% to Mexico and 0.2% to Peru.

Peru

With a population of 31 376 670, which is equivalent to 0.4% of the world's population (The World Bank Group, 2016), the Peruvian average consumption of vegetable oils has been growing steadily from 4.1 kg/person/yr in 1992 to 11.8 kg/person/yr in 2007 (Knoema, 2011-2016). According to Zarate and Garbee (2015) in their book *The Fire of Peru: Recipes and Stories from My Peruvian Kitchen*, most of the Peruvian households use canola oil for all types of cooking, including deep frying. In spite of that, there is also a demand for palm oil. In 2015, Malaysia exported 1316 t of palm oil to Peru. This is slightly higher compared to that of the previous year which was about 1213 t. Besides palm oil, Peru also imports oleochemicals and other finished palm products from Malaysia. The current import duty laid by the Peruvian government on the imports of palm oil and palm-based products ranges between 0 (free) and 9.0%. Under TPPA, Peru offers the Malaysian government an import duty elimination for CPO and palm kernel oil products (crude and processed) for 11 years. For palm-based oleochemical products, the offer was for most of the import duties to be eliminated upon EIF of TPPA from the current 0% to 9%, except in the case of soap products and stearic acid for which the import duties will be liberalised in six years' time from the current 9% (Balu, 2016).

Mexico

Mexico is known to be a net importer of oilseeds. Deriving the advantage of membership in the North American Free Trade

Agreement² (NAFTA), Mexico imports significant amounts of soyabean and canola oil. In 2015, soyabean continued to be the primary oilseed imported by Mexico, to be crushed domestically. Despite having large stocks of soyabean and canola oil, Mexico also imports palm oil. Besides its application in food, palm oil is also an energy source, *i.e.* referring to its use in the production of biofuel. In Mexico, about 52% of the palm oil is imported from Costa Rica and Guatemala, 13% from Honduras, 12% from Colombia, 11% from Indonesia, 5.6% from Nicaragua and only 2.9% from Malaysia (Simoes). High imports of palm oil from these countries are believed to be due to the trade advantage gained by Mexico via the Central America Free Trade Agreement³ (CAFTA). Due this advantage, the market share of Malaysian palm oil in Mexico is limited. However, moving forward, the palm oil export volume from Malaysia to Mexico is expected to improve via TPPA. In this trade agreement, Mexico offers tariff elimination upon EIF for 78.8% of palm oil and its products tariff lines. Under TPPA, Mexico has offered an import quota for palm oil and palm kernel oil products entering the country. Palm products exported under the import quota will enter Mexico duty-free. Palm oil and palm kernel oil products which are exported in amounts more than the specified

² In 1994, the North American Free Trade Agreement (NAFTA) came into effect, creating one of the world's largest free trade zones and laying the foundations for strong economic growth and rising prosperity for Canada, the United States and Mexico (source: <http://www.naftanow.org/>).

³ The Central America Free Trade Agreement (CAFTA) is an expansion of NAFTA to five Central American nations (Guatemala, El Salvador, Honduras, Costa Rica and Nicaragua), and the Dominican Republic (source: <http://www.citizen.org/Page.aspx?pid=1046>).

import quota will receive the normal rate (most favoured nation rate) of import duty. Meanwhile, palm-based oleochemical products have also been given import duty liberalisation upon EIF of TPPA except for certain tariff lines such as glycerol, saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and others, polycarboxylics, and also biodiesel (Balu, 2016).

Canada

As in the case of Mexico, the most widely used vegetable oils in Canada are canola and soyabean. In 2015, Canadian oilseed farmers produced a total of 23.47 million tonnes of soyabean and canola (rapeseed), 4.4% higher compared to that of the previous year (Dessureault, 2016). As the Canadian oilseed industry is highly dependent on export markets, the incentive to plant canola and soyabean follow the prices of the said oilseeds. Lower prices of rapeseed and soyabean in 2015 caused the areas planted with rapeseed and soyabean to decline in 2015/2016 by 3.2% and 2.3%, respectively. Canadian vegetable oils are an excellent source of dietary fat, and are used to prepare a vast array of foods. Despite having their own processed vegetable oils, Canada also imports other types of vegetable oils from other countries. Out of all the oils and fats imported by Canada in 2015, 22.8% was palm oil, 9.6% olive oil, and 8.0% was fish oil, together with a few other oils and fats (ISTA Mielke GmbH, 2016). More than 70% of Canadian palm oil imports originated from Malaysia (Simoes). The volume of palm oil exports to Canada is expected to increase upon implementation of TPPA. Under TPPA, Canada offers immediate import duty liberalisation upon EIF of TPPA as compared to the

current import duty of 3.5 to 8% (Balu, 2016).

USA

Unlike the three above-mentioned countries (Peru, Mexico and Canada), the contribution of Malaysian palm oil exports to USA is very significant. Despite being the largest producer of soyabean, USA continues to import palm oil. For the past five years, USA imported an average of 75 000 t of palm oil from Malaysia – 5.3% of Malaysia's total exports (MPOB, 2016). As in any other major importing countries, palm oil is not being used only in the food industry. The applications of palm oil in USA cover manufacture of consumer products, *i.e.* cosmetics, detergents, candles, *etc.*, and also as an energy source, *i.e.* to generate electricity, for heating, and as fuel. Stability of the palm oil trade to USA is important to the Malaysian palm oil industry. Participation of Malaysia in TPPA is expected to open up greater market access for the export of palm oil to USA. Under TPPA, USA has accorded elimination upon EIF by 97.2% and 96.1% of tariff lines for palm oil and its products, respectively. Palm oil and palm-based products will be given immediate import duty liberalisation upon EIF of TPPA as compared to the current import duty of between 2.8% and 6.5% (Balu, 2016).

With the exception of USA, Peru, Canada and Mexico are currently not major palm oil export destinations. Nevertheless, the study was carried out based on the perception that Malaysian palm oil exporters will have greater opportunities to further explore these markets for possible investments in the food manufacturing sector because trade barriers are expected to be reduced/eliminated. The recent case of better performance of palm oil

exports resulting from relaxation of trade barriers under the Malaysia-Turkey Free Trade Agreement (MTFTA) supports this perception. The MTFTA negotiations were concluded at a meeting from 13-15 January 2014 in Ankara, Turkey. The agreement was later signed by Dato' Sri Mustapa Mohamed, Minister of International Trade and Industry of Malaysia, and by the Honourable Nihat Zeybekci, Minister of Economy of the Republic of Turkey, on 17 April 2014 in Ankara, Turkey. MTFTA outlines commitments from both countries on liberalisation of trade in goods, by which both countries will progressively reduce or eliminate tariffs on a substantial number of products traded between the countries. Upon EIF of FTA, Turkey offered to reduce duties one-off on palm oil products such as CPO, process palm oil, crude palm kernel oil, and process palm kernel oil by 30% (margin of preference) (MITI, 2016). As a result of the reduction in duties, palm oil exports to Turkey in 2015 surged by more than 400% from 77 682 t in 2014 to 398 729 t (MPOB, 2016).

METHODOLOGY

In estimating the potential economic effects of TPPA on the Malaysian palm oil industry, the study applied the SMART (software for market analysis and restrictions on trade) model. This model and the simulation package which are provided together by the World Bank and the United Nations Conference on Trade Development (UNCTAD) help to quantify the economic effects of a FTA in an individual market in the country.

The model, which is also described as an ex-ante partial equilibrium model, measures the first-round effect of a possible trade liberalisation scenario in a

developing country. It simulates the implication of policy changes of the proposed trade agreement, such as changes in tariff rate and non-tariffs on a specific product. The fine details of how specific products will be affected by different policy approaches suit the purpose of this study as the larger general equilibrium models do not work at this level of detail (Laird and Yeats, 1986). The broader coverage of the interactions among different sectors of economy which are constructed at a high level of aggregation in general equilibrium may lead to the loss of commodity-specific details (FAO UN, 2005).

This method provides a quantitative solution to the earlier research question of how much will imports of palm oil by the selected TPPA countries increase. It focuses on the changes in imports into a particular market when there is a change in trade policy. In generating the output, the SMART model requires data on trade flows, the initial tariff protection and the values of certain behavioural parameters (Plummer *et al.*, 2010). The SMART model is a partial equilibrium modelling tool. It does not account for the economic interactions between the various markets in a given economy as are simulated in general equilibrium modelling.

Materials

The SMART model uses data from the World Integrated Trade Solution – a software developed by the World Bank in collaboration with UNCTAD and in consultation with organisations such as the International Trade Centre, the United Nations Statistical Division (UNSD) and the WTO. For the purpose of this study, the model employs the latest available trade data in the UNCTAD Trade Analysis Information System (TRAINS)

which contains information on tariffs and non-tariff measures for more than 160 countries.

The data on tariffs and non-tariff measures are recorded using the most detailed Commodity Description and Coding System (HS) at the National Tariff Line Level. Tariff information contains not only applied MFN tariff rates, but also (to the extent possible) various preferential regimes including the rates of the Generalised System of Preferences (GSP), Regional Trade Agreements (RTA) and other Preferential Trade Agreements (PTA) as well as the rates of bilateral trade agreement tariffs, and the value of the data is recorded in USD along with a variety of quantity measures. To examine the impact of TPPA on Malaysian export performance, this study utilised the import data from the four selected TPPA member countries, namely Mexico, Canada, Peru and USA. These four countries were chosen on the basis that there had been no prior trade agreement signed by Malaysia with these countries. *Table 1* shows the raw data extracted from TRAINS for the purpose of the simulation.

Besides the data on trade flows and tariffs, the SMART model also requires the parameters to reflect consumer and exporter behaviour, such as elasticity values, to assess the potential impact of trade policy

shocks. By default, SMART uses 99 as the export supply elasticity value, and the same value is used for all partners. Meanwhile, the import demand elasticity value used by default in SMART is the same for all reporters but may vary by product, and, lastly, the substitution elasticity in SMART is set at 1.5. The changes in palm oil prices which result from the modification of tariff and non-tariff barriers are expected to influence trade diversion, particularly from Indonesia, the largest producer of palm oil, and also from other major oils and fats producers. Besides the stiff competition from Indonesia, demand for palm oil is also largely influenced by changes in soyabean oil prices as these oils (palm and soyabean) are highly substitutable between one another (Shariff *et al.*, 2006). Palm oil tends to be cross-price elastic with soyabean oil, having a coefficient of 1.06 (Santeramo, 2017).

SMART Theoretical Framework

The SMART model lays down the idea that different countries compete to supply (export to) a particular market. The focus of the simulation in this model was on the composition and volume of imports into that market (the selected TPPA member countries). Export supply of a given goods – in

TABLE 1. MALAYSIAN PALM OIL EXPORTS TO SELECTED TRANS-PACIFIC PARTNERSHIP AGREEMENT (TPPA) MEMBER COUNTRIES

Destination	Year	HS code	Export value (USD 1000)
Mexico	2014	151110	1 495.13
		151190	11 075.92
Canada	2015	151110	0.48
		151190	53 667.47
Peru	2014	151190	18 943.83
USA	2015	151190	468 586.70

Source: The UNCTAD Trade Analysis Information System (TRAINS).

this study, palm oil – by a given country supplier (say, Malaysia) is assumed to be related to the price that it fetches in the export market. The degree of responsiveness of the supply of export to changes in the export price is given by the export supply elasticity. By default, SMART assumes that export supply elasticity of each foreign country is infinite, which implies that each foreign country can export as much of the goods as possible at a certain price – *i.e.* the price-taker assumption. On the demand side, SMART relies on the Armington assumption – imperfect substitution between home and foreign goods – to model consumer behaviour. This assumption suits palm oil as certain properties of

that oil make it less likely to be substituted with other vegetable oils (Bauen *et al.*, 2010).

In the SMART modelling framework, any changes in trade policy will affect trade flows. It decomposes trade effects into trade creation and trade diversion. Trade creation is defined as the direct increase in imports following a reduction in tariff. Trade diversion is created when the price of a goods from country A is cheaper than from country B due to the reduction of tariffs, resulting in increased imports of that goods from country A while imports from country B symmetrically decreases. To illustrate this: if tariff on palm oil from Malaysia in Mexico is reduced (preferential tariff reduction

which does not apply to other countries), the import of palm oil from Malaysia will increase because palm oil from other countries (Indonesia, Thailand and the rest) becomes relatively more expensive.

RESULTS AND DISCUSSION

The study used the SMART model to capture the economic effects of preferential tariff liberalisation on the Malaysian palm oil industry (product code HS 1511). During the simulation, the magnitude of reduction in import duties was based on the offers by the respective countries in TPPA (Table 2), and the simulation results are presented in Table 3.

The simulation results show that the largest increment due to the changes in import duties is for palm oil exports to Mexico. Assuming that the trade policy of Mexico with other countries remains constant, and the import duty for palm oil products from Malaysia is reduced to zero, the Malaysian palm oil export value to Mexico is projected to increase by 8.89%. This simulation is based on the current applied duty provided by TRAINS, which is 3% for crude palm oil (HS 151110) and 5% for processed palm oil product (HS 151190). The total effect on

TABLE 2. OIL PALM LIBERALISATION OFFERS IN TRANS-PACIFIC PARTNERSHIP AGREEMENT (TPPA)

Country	Current import duty (before TPPA)	Total of import duties eliminated (tariff lines) upon EIF (%)	Total duty eliminated (%)
Peru	Free – 9%	82.89	100
Mexico	Free – 20%	78.83	98.65
Canada	Free – 2.18%, but not less than USD 2.47/kg	97.26	100
USA	Free – 18%, 8.8 to 34.2 sen/kg	96.15	100

Note: EIF – entry into force.

Source: Balu (2016).

TABLE 3. SIMULATION RESULTS OF MALAYSIAN PALM OIL EXPORTS, BEFORE AND AFTER TRANS-PACIFIC PARTNERSHIP AGREEMENT (TPPA)

Importing country	Export-supply elasticity	Import-demand elasticity	Substitution elasticity	Export value of palm oil from Malaysia [#] (USD 1000)		Percentage change (+/- %)
				Before TPPA	EIF of TPPA	
Peru	99	0.6664*	1.5	18 944	18 944	0
Mexico	99	0.6664/0.4964**	1.5	12 571	13 659	8.89
Canada	99	0.6664/0.7020**	1.5	53 668	55 406	3.24
USA	99	0.6664	1.5	468 587	468 587	0

Note: *Import-demand elasticity for product with HS code 151190.

**Import-demand elasticity for product with HS code 151110.

[#]latest available export data from TRAINS.

EIF – entry into force.

Source: <http://wits.worldbank.org/WITS/WITS/Results>.

trade resulting from the elimination of the import duty on palm oil from Malaysia is anticipated to be worth USD 1.118 million, with USD 0.373 million coming from trade creation and USD 0.745 million from trade diversion.

The second largest increment resulting from the elimination of import duties is for palm oil imports by Canada. Assuming that the applied import duties on Malaysian palm oil products – 6% for HS 151110 and 2.75% for HS 151190 – were eliminated and that the duties imposed on other countries remained constant, the total import value of palm oil from Malaysia to Canada is expected to increase by 3.24%. Additionally, trade creation and trade diversion resulting from this simulation are valued at USD 0.957 million and USD 0.780 million, respectively.

The results of the simulation show that there is no change in the value of palm oil exports to Peru and USA. Both countries currently impose zero import duties on processed palm oil (HS 151190). According to the latest data provided in TRAINS, 99.9% of the value of Malaysian palm oil imports by USA in 2015 was due to processed palm oil (HS 151190), while Peru did not import any crude palm oil (HS 151110) from Malaysia in 2014 (the latest data available in TRAINS). Hence, no trade creation or trade diversion is anticipated in these countries pursuant to participation in TPPA. However, Malaysia is expected to benefit from the liberalisation of import duties on palm-based downstream products, such as oleochemicals, carboxylic acid and biodiesel.

CONCLUSION

From the simulation results and the discussions, it is clear that trade liberalisation in TPPA does

help to raise the performance of Malaysian palm oil exports. The reduction and/or elimination of trade barriers allows palm oil to expand its market share among the other major oils and fats consumed globally. Even though the offers under TPPA do not make any impact on the performance of palm oil exported to USA – one of the major consumers of palm oil – they do help to open up the markets for palm-based downstream products. The Department of Statistics, Malaysia, stated that total exports of palm oil and palm-based products in May 2016 grew by 9.0% year-on-year, and this was largely contributed by the increase in exports of palm-based oleochemicals by 18.3% year-on-year (DOSM, 2016). Turning back to the objectives of this study, TPPA is found to be advantageous to the Malaysian palm oil industry as it will help create higher trade numbers and increase market share relative to its competitors internationally. As this study employed partial equilibrium, it should be borne in mind that the results are limited only to the direct impact of TPPA on one specific product, which is palm oil. This method is unable to capture the spill-over effect of the trade policy shocks to related products. However, this study is not only limited to TPPA. The simulation results of trade liberalisation that have been emphasised in this study can also be applied to other upcoming or potential trade agreements to be concluded, either bilaterally or regionally.

LIMITATIONS AND RECOMMENDATIONS

Partial equilibrium modelling (the basis of the SMART model) is a straight-forward method for analysing the impact of trade

agreements. As it is only a partial model, the analysis is done only on a pre-determined number of economic variables. This makes it very sensitive to a few behavioural elasticities. Arising also from its simplicity, this partial equilibrium model may miss important interactions and feedbacks among various markets. It tends to neglect the importance of inter-sectoral input/output linkages as well as the existing constraints that apply to various factors of production, such as labour, capital and land. The model is limited only to one market and ignores the indirect effects of the trade policy changes in a particular market that spill over to related markets. Additionally, the results of this model may be sensitive to the modelling assumptions and the parameter values used as the user may perform the simulation manually by changing the parameter values (the elasticities values) over a reasonable range.

From the above discussion, it is recommended that the government should continue to explore any potential trade agreements as they can help further enhance the Malaysian palm oil market share internationally. This will consequently contribute to higher export revenue for Malaysia.

ACKNOWLEDGEMENT

The authors wish to acknowledge the Head of the Techno-economics Research Unit and all subordinate staff of the Techno-economics Research Unit of the Economics & Industry Development Division, MPOB for their kind assistance and support towards completing this article. The authors also wish to thank the Director-General specifically and the management of MPOB for their support in conducting this research.

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