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Assessing Potential and Impact on Bilateral Free Trade Scenario
Between Indonesia and Mexico

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Abstract

The paper attempts to analyze the impact of a bilateral free trade (zero tariff) scenario between Indonesia and Meixco. The analysis is performed based on the integrated world trade databases owned by United Nations Conference on Trade and Development (UNCTAD) and World Integrated Trade Solution (WITS). The study reveals that Indonesia and Mexico's consumer surplus and trade creation are expected to increase as a result of bilateral FTA but however it does reduce the tariff revenues. Based on the results, it can be concluded that there are plenty room to further enhance their exports. The paper suggests both countries should reduce their protective measures, both tariffs and non-tariff barriers and by eliminating trade barriers both countries will reap higher welfare and fulfilling the objectives of both countries to intensify bilateral trade relations.

Keywords: Bilateral Free Trade, Partial Equilibrium Analysis, SMART Model

JEL classification numbers: F14, F15, F17

1. Background

Economic theory states that trade liberalization increases efficiency, economies of scale, competition, productivity factors and trade flows, thus, ultimately enhance economic growth (Barro and Sala-i-Martin, 1995). The current situation shows that at the multilateral level the progress of the Doha Round at the World Trade Organization (WTO) is slow or even worse could be a deadlock, the developed countries such as the United States and the European Union (EU) which are considered as the traditional markets for many of the developing countries are also still experiencing somehow unstable economic conditions. The world has not yet fully recovered from the global economic and financial crises, thus, this has lead many developing countries to move towards regional and bilateral cooperations in order to boost trade, development and economic growth. This can be seen from the large number of Regional Trade Agreements[1] (RTAs) where as of 15th January 2012, approximately 511 RTAs have been notified to the GATT / WTO; which 319 already entered into force.

Indonesia itself has also actively strengthen its economic cooperation (bilateral, sub-regional and regional) in the form of Economic Partnership Agreement (EPA), Preferential Trade Agreement (PTA), and the Free Trade Agreement (FTA) with many countries around the globe. As of January 2012, there are 20 initiatives which are currently in the process of studies, negotiations or have entered into force (Asia Regional Integration Center, 2012). The main objectives of these economic cooperation initiatives among others is to expand trade in goods and services market and investment cooperation by reducing tariff barriers and non-tariff. But however with the South American, Caribbean, Central American, and North American (except US and Canada) counterparts, so far, only one proposed bilateral FTA has been made and recently last April 2013, this agreement turned into a so called Indonesia-Chile Comprehensive Economic Partnership Agreement (IC-CEPA) (Yulisman, 2013). Recently during the ASEAN Latin Business Forum (ALBF) 2012, Mexico saw Indonesia as an important partner in ASEAN and was proposing Indonesia to join the Pacific Alliance (Peru, Chile, Colombia, Mexico) but however the Indonesian side was still not ready to participate the Trans Pacific Partnership (Burhani, 2012). According to Angeles (2012), uptill July 2012 Mexico has 12 FTAs and several partial scope agreements.

It is already a classical matter countries from these two different regions due to conventional problems such its long distance and lack of direct travel routes which leads to high transportation costs, language barriers, poor infrastructures and inefficient transport services, lack of interests by the local people from both regions, low people to people contact, and lack of information has ultimately caused the trade between ASEAN and South American, Caribbean, Central American and North American (except US and Canada) regions persistently low over the years. For Indonesia, although attempts has been made to reinvigorate and enhance the economic cooperations at the regional and bilateral level within the recent periods. But however, at least until 2012, Indonesian bilateral trade with its partners in the South American, Caribbean, Central American, and North American (except US and Canada) regions shows a relatively low trade volume. As an illustration, in 2012 Indonesia's largest trading partner in Latin America was Brazil (US$3.4 billion) followed by Argentina (US$2 billion), Mexico (US$1.2 billion), Chile (US$382 million) and Panama (US$379 million). The current trade volume according to many views does not reflect the potential trade volume, a deeper economic relations could further be done in the future.

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[1] World Trade Organization (2012), Regional Trade Agreements. Retrieved 17 August, available from: http://www.wto.org/english/tratop_e/region_e/region_e.htm

Few researches have been done so far particularly on issues concerning Indonesian economic relations with Latin American region which cover the South American, Caribbean, Central American, and North American (except US and Canada) hemispheres. Thus, this paper offers a study on the feasibility of enhancing Indonesian economic cooperations with one of the Latin American counterparts, Mexico, one of the Indonesia's trading partner within North American region through a bilateral Indonesia-Mexico scenario. Many studies related with the impact of free trade liberalization have been done by previous researchers both quantitative and qualitative methods, but very few academic papers discussed on Indonesian bilateral trade with the Latin American counterparts. This paper attempts to analyze what would be the economic impact between Indonesia and Mexico within the free trade (zero tariff) scenario. Therefore, this research paper attempts to raise and propose a study with a title of: *Assessing Potential and Impact on Bilateral Free Trade Scenario between Indonesia and Mexico*. This study is expected not only enriching scientific international trade literatures, but also for the policymakers, this could be used as a reference to take the appropriate economic diplomacy measures.

2. Overview Bilateral Economic Relationships Indonesia-Mexico

Diplomatic bilateral relations between Indonesia and Mexico have started since 6th April 1953 and over the years, the bilateral relations between both countries have been generally positive, good and cordial. For Mexico, it is the first Asian country to formally open a diplomatic relationship with Mexico. Indonesian first President, Soekarno visited Mexico three times (1958, 1959, and 1961), followed by President Soeharto visited Mexico three times (1991, 1995, and 1997), President Abdurrahman Wahid once in 10-11 April 2000, President Megawati Soekarnoputri once in 2002, and President Susilo Bambang Yudhoyono once in 2008. Meanwhile, the Mexican President, Adolfo López Mateos made an official visit to Indonesia back in 1962 and in November 1994 the Mexican President, Carlos Salinas de Gortari visited to Indonesia to attend the APEC meeting in Bogor.

Indonesia opened its Embassy in Mexico City on 1st July 1956, but however the Indonesian government has opened the information office (*Oficina de Información de la República de Indonesia*) backed in January 1954. Meanwhile Mexico opened its Embassy in Jakarta in 1961, in which previously concurrently held by the Mexican Embassy in Tokyo. Further, Mexico has opened a Honorary Consulate in Denpasar, Bali (1995) and Yogyakarta (2010), meanwhile Indonesia has a Honorary Consulate in Nuevo Leon-Montery. As of November 2011, there were 366 Indonesian citizens living in Mexico (Kemlu, 2011, p.126-127).

For the bilateral trade relations, both countries signed *Indonesia-Mexico Trade Agreement* in Mexico City on 1st November 1961 and the *Revised Protocol on the Trade Agreement* signed in Jakarta on 19th October 1962, since then bilateral trade cooperation formally started, although historically bilateral trade has been going long time before. To strengthen bilateral trade relations on May 2009 Indonesia established Indonesian Trade Promotion Center (ITPC) in Mexico City. Indonesia and Mexico has also conducted a Bilateral Consultation Forum (BCF) four times, 1st BCF (11 April 2003, Jakarta), 2nd BCF (10-12 May 2007, Mexico City), 3rd BCF (9-10 May 2011, Jakarta) and the 4th BCF (2nd August 2011, Mexico City).

To enhance economic, politico-security and socio-cultural cooperations both countries (public and private sectors) have signed among others: *KADIN-CEMAI Cooperation Agreement* (1991); *Indonesia-Mexico Technical and Science Cooperation Agreement* (2 July 1996); *MoU Cooperation*

between Bank Negara Indonesia and Bancomext (July 1997); *MoU Cooperation between Bank Exim and Bancomext* (July 1997); *MoU Cooperation between Bank Indonesia and Banco de Mexico* (July 1997); *Double Taxation Avoidance Agreement* (30 May 2001), *Education and Cultural Cooperation Agreement* (30 May 2001, Indonesia ratified this agreement in November 2008), *MoU of Joint Consulation Forum* (30 May 2001), *the Establishment of a Joint Business Committee between KADIN and COMCE* (24 October 2002), *MoU on the Establishment of the Consultative Committees in Agricultural Sector* (17 November 2008), *MoU between the Center for Education and Training, Ministry of Foreign Affairs for the Republic of Indonesia and the Ministry of Foreign Affairs for the United of Mexican States on Diplomatic Education and Training* (17 November 2008), *MoU between NAFED and ProMexico on Trade Promotion* (17 November 2008), *MoU between Pertamina and PEMEX on Energy Cooperation* (17 November 2008), *MoU between the Ministry of Forestry for the Republic of Indonesia and the Ministry of Environment and Natural Resources of the United Mexican States (SEMARNAT) on Forestry Cooperation* (3 August 2011), *MoU between Indonesian National Narcotics Agency (BNN) and the Mexican Attorney General's Office (PGR) on Technical Cooperation Against Illicit Traffic in Drugs, Psychotropic Substances and its Precursors* (3 November 2011), *MoU between the Indonesian Police and the Mexican Attorney General's Office (PGR) on Combating Transnational Crime and Capacity Building Cooperation* (3 November 2011).

Within the Indonesian Ministry of Foreign Affairs (MoFA), Mexico is handled within the Directorate of North and Central American Affairs (Amuteng) and is within the North American region. Among the Latin American countries, Mexico is the third largest Indonesia's trading partner but compared to the other North American countries, Mexico is far lagged behind with the United States and Canada (see table 1). Within the North and Central American regions, Indonesian trading volume with the United States reached US$26.48 billion, followed by Canada (US$2.6 bilion), Mexico (US$1.21 billion), and Panama (US$225 million). The current Indonesia-Mexico bilateral trade relations still below its potential and more efforts could be made to strengthen bilateral trade volume.

Table 1: Trade Relations between Indonesia and North and Central American Region Counterparts for the Period 2011-2012 (In Thousands USD)

No	Country	2011				2012			
		Export	Import	Total	Balance	Export	Import	Total	Balance
1	United States of America	16,459,139.00	10,813,206.30	27,272,345.30	5,645,932.70	14,874,386.40	11,602,612.10	26,476,998.50	3,271,774.30
2	Belize	530.9	3,958.50	4,489.40	-3,427.60	356.8	4266.7	4,623.50	-3,909.90
3	El Salvador	11,350.80	1,750.30	13,101.10	9,600.50	12,851.30	1,209.60	14,060.90	11,641.70
4	Guatemala	21,601.90	41,129.50	62,731.40	-19,527.60	28,110.50	908.70	29,019.20	27,201.80
5	Honduras	24,221.00	1,226.10	25,447.10	22,994.90	15,561.30	1,301.90	16,863.20	14,259.40
6	Canada	960,285.10	2,015,826.50	2,976,111.60	-1,055,541.40	792,445.90	1,810,746.00	2,603,191.90	-1,018,300.10
7	Costa Rica	23,939.10	9,421.70	33,360.80	14,517.40	16,060.90	8,513.40	24,574.30	7,547.50
8	Mexico	658,392.90	412,670.10	1,071,063.00	245,722.80	649,881.40	568,439.10	1,218,320.50	81,442.30
9	Nicaragua	7,581.60	103.7	7,685.30	7,477.90	20,337.00	1,327.30	21,664.30	19,009.70
10	Panama	143,184.30	75,544.30	218,728.60	67,640.00	154,076.40	225,225.50	379,301.90	-71,149.10
	Total	18,310,226.60	13,374,837.00	31,685,063.60	4,935,389.60	16,564,067.90	14,224,550.30	30,788,618.20	2,339,517.60

Source: World Integrated Trade Solution (2013)

Based on the Indonesia-Mexico bilateral trade data for the period 1989-2012, the bilateral trade relations has only recently showed a significant improvement. In 1989, the bilateral trade volume was only US$77.39 million and now in 2012 has reached to US$1.2 billion. During the mid 1990s until 2009, in average the bilateral showed an rising trend but with some fluctuations. The Peso Crisis 1995 (Tequila Crisis), the 1997/98 Asian Economic and Financial Crisis, the 2001 US Recession, and the Great Recession (Global Crisis) in 2009 to a certain degree have caused the bilateral trade relations to slowndown. But however, since 2010 bilateral trade rose dramatically and keep increasing until 2012. Both countries have learned from their economic crises lessons in the mid and late 1990s and the prolonged economic recession in the US and European region as their traditional markets, have pushed both countries to actively search for alternative markets in order to boost economic growth and development.

Graphic 1: Trade Relations between Indonesia and Mexico for the Period 1989-2012

(In Million USD)
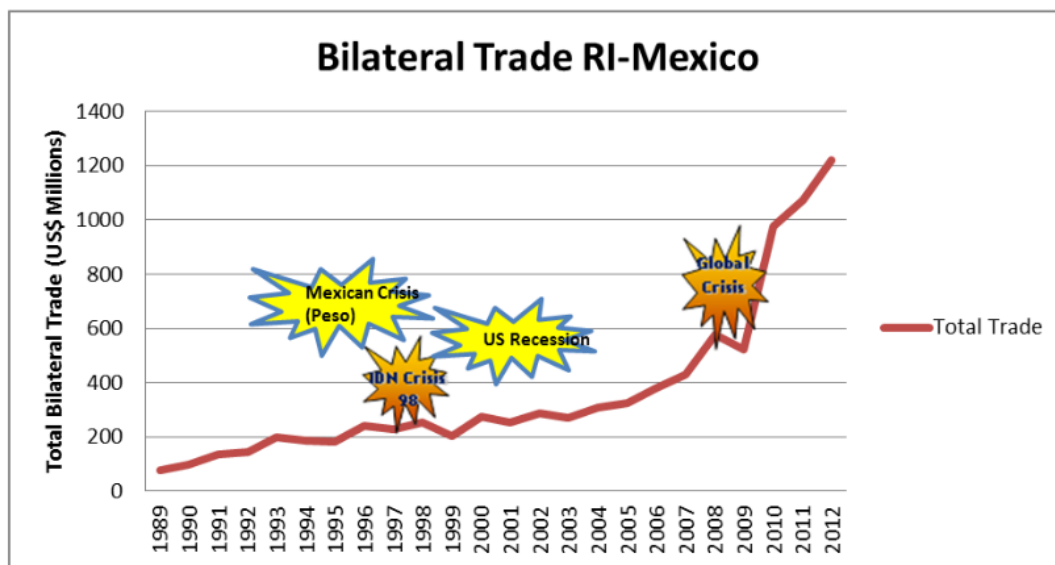
Source: World Integrated Trade Solution (2013)

The 2009 Global Recession could be the culminating point and turning momentum for both countries to speed up their economic diplomacy endeavours to find alternative markets. For the Indonesia-Mexico bilateral trade volume, it seems to be fruitful in which trade has dramatically increased over the last few years. In 2009, the bilateral trade was US$523.77 million and increased significantly to US$975.53 million (2010) or an increase of 86 percent, reaching above US$1 billion (2011) and in 2012 reached to an unprecedented level to US$1.2 billion. The bilateral trade over the last 5 years (2008-2012) showed a positive trend rising with an average of 24.80 percent. The trade balance always showed a trade surplus for the Indonesian side. Tracing back since 1989-2012, Indonesia only experienced trade deficits in 1989-1991 and 1995.

Table 2: Trade Relations between Indonesia and Mexico for the Period 1989-2012
(In Million USD)

Year	RI Export	RI Import	Total	Trade Balance
1989	25.53	51.86	77.39	-26.33
1990	36.03	63.11	99.14	-27.08
1991	56.72	81.36	138.08	-24.64
1992	87.31	56.09	143.40	31.22
1993	140.34	58.21	198.55	82.13
1994	144.30	41.62	185.92	102.68
1995	88.41	92.45	180.86	-4.04
1996	127.76	113.93	241.69	13.83
1997	167.83	62.70	230.53	105.13
1998	213.89	40.98	254.87	172.91
1999	179.55	24.36	203.91	155.19
2000	243.99	29.65	273.64	214.34
2001	229.93	24.68	254.61	205.25
2002	264.22	23.81	288.03	240.41
2003	238.11	30.88	268.99	207.23
2004	279.44	29.61	309.05	249.83
2005	277.09	46.25	323.34	230.84
2006	318.05	59.89	377.94	258.16
2007	360.98	67.76	428.74	293.22
2008	426.08	149.38	575.46	276.7
2009	384.04	139.73	523.77	244.31
2010	762.66	212.87	975.53	549.79
2011	658.39	412.67	1071.06	245.72
2012	649.88	568.44	1218.32	81.44

Source: World Integrated Trade Solution (2013)

Indonesia's exports to Mexico during the last 5 years (2008-2012) showed a rising trend with an average of 14.84 percent, but however Indonesian import from Mexico have grown at a faster rate reaching 45.58 percent. In 2012, Indonesian exports amounted US$649.88 million meanwhile imports reached to an unprecedented level of US$568.44 million. Using the HS 4 digits (Version 2007), Indonesian top five export commodities to Mexico in 2012 were: HS4001 -- *Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms or in plates, sheets or strip* (US$62.7 million); HS2711 -- *Petroleum gases and other gaseous hydrocarbons*.(US$56.39 million); HS8703 -- *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 (US$53.56 million), HS6403 -- *Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather* (US$40.88 million), and HS8521 -- *Video recording or reproducing apparatus, whether or not incorporating a video tuner* (US$39.82 million).

Meanwhile Indonesian main import commodities from Mexico in 2012 were: HS8525 -- *Transmission apparatus for radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras, digital cameras and video camera recorders* (US$357.29 million); HS3915 -- *Waste, parings and scrap, of plastics* (US$35.86 million); HS7204 -- *Ferrous waste and scrap; remelting scrap ingots of iron or steel* (US$18.2 million); HS8471 -- *Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included* (US$16.64 million); and HS8701 -- *Tractors (other than tractors of heading 87.09)* (US$14.63 million).

3. Research Methodology

The paper discusses the impact and implications of Indonesia-Mexico bilateral free trade agreements scenario. The study will use SMART Model (Software for Market Analysis and Restrictions on Trade) obtained from World Integrated Trade Solutions (WITS) in order to analyze the overall impact of Indonesia-Mexico bilateral free trade scenarios (zero tariff dismantlement). SMART is a partial equilibrium model and a market access simulation package and has been used by many analysts to evaluate the impact of change in the trade policy on the trade effects, change in tariff revenue, and welfare effects. The SMART Model, for a given good, different countries compete to supply (export to) a given home market. The main simulation analysis is on the composition and volume of imports into that market. The SMART Model is based on the following assumptions:

1) Partial Equilibrium: no income effects.
2) Armington Assumption: goods imported from different countries are imperfect substitutes, i.e., grapes from Mexico are an imperfect substitute to grapes from Indonesia. In SMART Model, the import substitution elasticity is given to be 1.5 for each good.
3) Export supplies are perfectly elastic: export supply curves are flat and world prices of each variety (e.g. grapes from Mexico) are exogenously given. This is often called the price taker assumption. By default, SMART uses 99 for infinite elasticity for all products and partners.
4) Import Demand Elasticity: the default values are the same for all reporters but may vary by product. The current set includes over 100 distinct values that can be changed but the elasticity value is unique for a given product (import demand elasticity is irrespective of the partner).

Mathematically to evaluate the impact of change in the trade policy on the trade creation, change in tariff revenue, and welfare effects, the SMART Model uses the following main equations: First, for the trade creation is defined as the direct increase in imports following a reduction on the tariff imposed on good g from country c i (Jammes & Olarreaga, 2005). It captures the aspects of trade liberalization as in the case of bilateral trade scenario. To obtain this, SMART uses the definition of price elasticity of import demand:

$$\varepsilon_{g,c} = \frac{dm_{g,c}/m_{g,c}}{dp_{g,c}^d/p_{g,c}^d} < 0 \qquad (1)$$

$$\frac{dm_{gcd}}{m_{gcd}} = \varepsilon_{gcd} \frac{dP_{gcd}}{P_{gcd}}$$

Solving (1) for $dm_{g,c}$, we obtain the trade creation ($TC_{g,c}$) evaluated at world prices and associated with the tariff reduction on good g when imported from country c:

$$TC_{g,c} = p_{g,c}^{w} dm_{g,c} = p_{g,c}^{w} \varepsilon_{g,c} m_{g,c} \frac{dp_{g,c}^{d}}{p_{g,c}^{d}} \qquad (2)$$

Note that using (3), we have $dp_{g,c}^{d} = p_{g,c}^{w} dt_{g,c}$. Substituting this and (3) into (2) yields:

$$TC_{g,c} = p_{g,c}^{w} dm_{g,c} = p_{g,c}^{w} \varepsilon_{g,c} m_{g,c} \frac{dt_{g,c}}{(1+t_{g,c})} = \varepsilon_{g,c} m_{g,c} \frac{dt_{g,c}}{(1+t_{g,c})} \qquad (4)$$

Note that in the last equality we simply choose units of all goods so that the world prices are equal to 1. One can then interpret $m_{g,c}$ as import value of good g from country c measured at world prices. This normalization of units is undertaken from now on in order to simplify the expressions, so that mg,c represents both imported quantities and value of good g from country c. As long as world prices are kept exogenous (i.e., export supply functions are perfectly elastic), this normalization has no implications for the derivations above and below (Jammes & Olarreaga, 2005).

For the tariff revenue is given as the product of the tax rate (tariff rate in this case) and the tax base (the value of imports). Thus, before the change in the ad valorem incidence of the trade barriers, the revenue is given as:

$$R_0 = \sum_g \sum_d t_{gcd}^0 P_{gcd} M_{gcd} \qquad (5)$$

After the change in the tariff rate, the new revenue collection will be given by:

$$R_1 = \sum_g \sum_d t_{gcd}^1 P_{gcd} M_{gcd} \qquad (6)$$

The revenue loss as a result of the implementation of a change in the tariff rate would then be the net effect between R_1 and R_0 which is the same as:

$$RL = \sum_g \sum_d dt_{gcd} P_{gcd} M_{gcd} \qquad (7)$$

Finally, for the welfare effect, the SMART Model only analyze the implication to the consumer surplus in the importing country as a result of lower import prices. Increased imports leads to a net welfare gain (increase in consumer welfare) and is measured as follows:

$$w_{gcd} = 0.5(dt_{gcd}dM_{gcd}) \qquad (8)$$

The coefficient of 0.5 captures the average between the ad valorem incidence of the trade barriers before and after their elimination/reduction. Equation (8) assumes that the elasticity of export supply is infinite (Laird and Yeats, 1986).

The main advantage using the SMART Model is its minimal data requirement. SMART Model only requires data for the trade flows, the trade policy (tariff), and a couple of behavioral parameters (elasticities). Another advantage is that it permits an analysis at a fairly disaggregated (or detailed) level uptill HS 6 Digits level and it resolves a number of "aggregation biases" where within the framework of a general equilibrium model, the level of aggregation is neither convenient nor possible. However SMART as a partial equilibrium model does have its own disadvantages among others: SMART neglects the interactions and feedbacks between the various markets or the inter-sectoral input/output linkages that are the basis of general equilibrium model; the analysis is done on pre-determined number of economic variables, as a result this makes it very sensitive to a few (badly estimated) behavioral elasticities; and it also misses the constraints applied to the various factors of production and their movement across sectors (Ahmed, 2010).

Last, this paper will also attempt to provide recommendations for the Indonesian and Mexican policymakers. The scope of this research covers: a) The number of countries observed are only between Indonesia and Mexico; b) For the trade data, a 4 Digits Harmonized System (HS) will be used in order to analyze at the more disaggregated level (product level) based on the data obtained from UN COMTRADE; and c) Free trade scenario (zero tariff simulation) will be based on trade data year 2011 (the latest data available at WITS) and only covers primary and manufactured goods.

4. Analysis and Findings

4.1 Indonesia-Mexico Bilateral Free Trade Scenario: A Partial Equilibrium Analysis

In this section, the results of SMART model illustrates and discusses the possible impact of the Indonesia-Mexico bilateral free trade scenario in 2011. The objective is to analyze the impact on the consumers potential gains, product-specific tariff revenues and trade creation effects. To analyze the bilateral FTA scenario, this paper uses the HS 4 Digits Code and a complete tariff dismantlement scenario (extreme scenario) in order to clearly expose the effects of trade liberalization on all products.

4.1.1 The Impact of Indonesia-Mexico Bilateral Free Trade Scenario on the Consumer   Surplus   and Trade Creation Effect

SMART simulation results reveal positive consumer surplus and trade creation effect for both Indonesia and Mexico. The results are reported in table 3. As a result of prospective Indonesia-Mexico FTA scenario, Indonesian consumer surplus is expected to increase by US$396380. *Waste, parings and scrap, of plastics* contributed the highest consumer surplus by US$86780 accounted for 21.89 percent of the total Indonesian consumer surplus, followed by *Tractors (other than tractors of heading 87.09)* amounted US$61900 (15.6 percent), *Women's or girls' blouses, shirts and shirt-blouses, knitted or*

crocheted amounted US$25410 (6.41 percent), and *Flours, meals and pellets, of meat or meat offal, of fish or of crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption; greaves* amounted US$16910 (4.27 percent).

Meanwhile, Indonesia's trade creation effect (change in import) is expected to be US$9.93 million meaning the zero tariff scenario of the bilateral Indonesia-Mexico causes an expected increase of Indonesian imports from Mexico by US$9.93 million. The highest trade creation effect for Indonesia is expected to be *Waste, parings and scrap, of plastics* contributed the highest trade creation effect by US$2.02 million accounted for 20 percent; followed by *Tractors (other than tractors of heading 87.09)* amounted US$0.77 million (7.75 percent), *Flours, meals and pellets, of meat or meat offal, of fish or of crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption; greaves* by US$0.45 million (4.53 percent), and *Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel* by US$0.44 million (4.43 percent).

Table 3: The Impact of IDN-MEX FTA Scenario on Indonesia's *Consumer Surplus*

(Top 10 Commodities)

Product Code	Product Name	Consumer Surplus in Thousands USD
3915	*Waste, parings and scrap, of plastics*	86.78
8701	*Tractors (other than tractors of heading 87.09)*	61.90
6106	*Women's or girls' blouses, shirts and shirt-blouses, knitted or crocheted.*	25.41
2301	*Flours, meals and pellets, of meat or meat offal, of fish or of crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption; greaves.*	16.91
7304	*Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel.*	14.51
2106	*Food preparations not elsewhere specified or included.*	13.25
6203	*Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear).*	12.91
8501	*Electric motors and generators (excluding generating sets).*	10.02
8481	*Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves.*	9.79
8414	*Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters.*	8.81

Source: World Integrated Trade Solution

Table 4: The Impact of IDN-MEX FTA on Indonesia's *Trade Creation Effects* (Top 10)

Product Code	Product Name	Trade Creation Effects in USD (Millions)
3915	*Waste, parings and scrap, of plastics*	2.02
8701	*Tractors (other than tractors of heading 87.09)*	0.77
2301	*Flours, meals and pellets, of meat or meat offal, of fish or of crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption; greaves.*	0.45
7304	*Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel.*	0.44
6106	*Women's or girls' blouses, shirts and shirt-blouses, knitted or crocheted.*	0.40
8402	*Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers.*	0.35
8414	*Air or vacuum pumps, air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters.*	0.34
8481	*Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves.*	0.31
8413	*Pumps for liquids, whether or not fitted with a measuring device; liquid elevators.*	0.31
4006	*Other forms (for example, rods, tubes and profile shapes) and articles (for example, discs and rings), of unvulcanised rubber.*	0.30

Source: World Integrated Trade Solution

For Mexico, its consumer surplus gain is expected to increase by US$13.2 million. The biggest consumer surplus is contributed mainly by *Cocoa beans, whole or broken, raw or roasted* by US$1.45 million, followed by *Other footwear with outer soles and uppers of rubber or plastics* amounted US$1.44 million, *Footwear with Outer Soles of Rubber, Plastics, Leather or Composition Leather and Uppers of Leather* amounted US$1.05 million and *Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials* amounted US$0.97 million. Meanwhile for the trade creation effect, the prospective bilateral Indonesia-Mexico FTA is expected to be US$89.745 million. The total trade effect is dominated by *Cocoa beans, whole or broken, raw or roasted* totalling US$11.98 million, followed by *Other footwear with outer soles and uppers of rubber or plastics* by US$7.63 million and *Yarn (other than sewing thread) of synthetic staple fibres, not put up for retail sale* (US$6.29 million).

Both countries are expected to gain consumer surplus and trade creation effect but Indonesia has lower consumer surplus and trade creation effect as it has already a relatively low tariff regimes. Therefore, unless there are other concerns specific to both countries such as revenue loss or diverting cheaper products from other preferential agreements, it is suggested that access may be granted by each country at least starting from the top ten commodities that contributed gain in consumer surplus and trade creation effect. It is important to underline that the SMART Model does not evaluate the total impact of the FTA on welfare as a whole, because it only captures consumer surplus. In order to see the greater picture of the welfare effects as a whole, it is necessary to analyze the effects for producers.

Table 5: The Impact of IDN-MEX FTA Scenario on Mexico's *Consumer Surplus*

(Top 10 Commodities)

Product Code	Product Name	Consumer Surplus in Millions USD
1801	Cocoa beans, whole or broken, raw or roasted.	1.45
6402	Other footwear with outer soles and uppers of rubber or plastics.	1.44
6403	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather.	1.05
6404	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials.	0.97
6205	Men's or boys' shirts.	0.72
6202	Women's or girls' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, other than those of heading 62.04.	0.68
6210	Garments, made up of fabrics of heading 56.02, 56.03, 59.03, 59.06 or 59.07.	0.58
5509	Yarn (other than sewing thread) of synthetic staple fibres, not put up for retail sale.	0.54
6110	Jerseys, pullovers, cardigans, waistcoats and similar articles, knitted or crocheted.	0.47
6204	Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear).	0.35

Source: World Integrated Trade Solution

Table 6: The Impact of IDN-MEX FTA on Mexico's *Trade Creation Effects* (Top 10)

Product Code	Product Name	Trade Creation in Millions USD
1801	*Cocoa beans, whole or broken, raw or roasted.*	11.98
6402	*Other footwear with outer soles and uppers of rubber or plastics.*	7.63
5509	*Yarn (other than sewing thread) of synthetic staple fibres, not put up for retail sale.*	6.29
6403	*Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of leather.*	5.80
6404	*Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials.*	4.26
6205	*Men's or boys' shirts.*	3.19
6210	*Garments, made up of fabrics of heading 56.02, 56.03, 59.03, 59.06 or 59.07.*	2.65
6202	*Women's or girls' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, other than those of heading 62.04.*	2.63
6704	*Wigs, false beards, eyebrows and eyelashes, switches and the like, of human or animal hair or of textile materials; articles of human hair not elsewhere specified or included.*	2.02
6110	*Jerseys, pullovers, cardigans, waistcoats and similar articles, knitted or crocheted.*	1.99

Source: World Integrated Trade Solution

4.1.2   The Impact of Indonesia-Mexico Bilateral Free Trade Scenario on the Tariff   Revenues

SMART simulation results also reveal that Indonesia's revenue loss will be -US$8.58 million while Mexico may lose about –US$17.94 million in case of perfect tariff liberalization. The biggest tariff revenue loss for Indonesia comes from *Tractors (other than tractors of heading 87.09* by -US$1.08 million (accounted for 12.59 percent of the total expected revenue loss), followed by *Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers.* amounted -US$0.85 million (9.9 percent) and *Carbonates; peroxocarbonates (percarbonates); commercial ammonium carbonate containing ammonium carbamate* amounted -US$0.83 million (9.67 percent). Meanwhile for Mexico, the revenue loss primarily comes from *Seats (other than those of heading 94.02), whether or not convertible into beds, and parts thereof* amounted –US$15.9 million, and also other commodities such as *Garments, made up of fabrics of heading 56.02, 56.03, 59.03, 59.06 or 59.07.* by –US$6.22 million; and *Other footwear with outer soles and uppers of rubber or plastics* by –US$5.14 million. The expected tariff revenue loss, Mexico is expected to bare a higher revenue loss compared to Indonesia.

Table 7: Indonesia's Expected Tariff Revenue Loss (Top 10)

Product Code	Product Name	Revenue Loss in Millions USD
8701	Tractors (other than tractors of heading 87.09)	1.08
8402	Steam or other vapour generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers.	0.85
2836	Carbonates; peroxocarbonates (percarbonates); commercial ammonium carbonate containing ammonium carbamate.	0.83
3915	Waste, parings and scrap, of plastics	0.48
8481	Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves.	0.31
2833	Sulphates; alums; peroxosulphates (persulphates).	0.30
2301	Flours, meals and pellets, of meat or meat offal, of fish or of crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption; greaves.	0.29
2820	Manganese oxides.	0.24
8413	Pumps for liquids, whether or not fitted with a measuring device; liquid elevators.	0.18
4002	Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any product of heading 40.01 with any product of this heading, in primary forms or in plates, sheets or strip.	0.18

Source: World Integrated Trade Solution

Table 8: Mexico's Expected Tariff Revenue Loss (Top 10)

Product Code	Product Name	Revenue Loss in Millions USD
9401	Seats (other than those of heading 94.02), whether or not convertible into beds, and parts thereof.	15.90
6210	Garments, made up of fabrics of heading 56.02, 56.03, 59.03, 59.06 or 59.07.	6.22
6402	Other footwear with outer soles and uppers of rubber or plastics.	5.14
1511	Palm oil and its fractions, whether or not refined, but not chemically modified.	4.85
0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen.	4.72
6404	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of textile materials.	4.68
6109	T-shirts, singlets and other vests, knitted or crocheted.	4.06
6204	Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear).	3.84
9403	Other furniture and parts thereof.	3.28
6203	Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear).	2.93

Source: World Integrated Trade Solution

5. Conclusion and Recommendations

The present study reveals that the trade expansion between both countries could be further be enhance and one of the way is through establishing a Indonesia-Mexico bilateral FTA. The bilateral free trade scenario reveals that Indonesia and Mexico's consumer surplus and trade creation will increase as a result of bilateral FTA. Indonesia's consumer surplus gains and trade creation effects are derived from among others are: *Waste, parings and scrap, of plastics;* and followed by *Tractors (other than tractors of heading 87.09).* Meanwhile for Mexico, its consumer surplus gain and trade creation effect are derived among others from *Cocoa beans, whole or broken, raw or roasted;* and *Other footwear with outer soles and uppers of rubber or plastics.* For the expected tariff revenue loss, it is revealed Mexico experiences a higher revenue loss in which the biggest tariff revenue loss for Mexico comes from *Seats (other than those of heading 94.02), whether or not convertible into beds, and parts thereof,* meanwhile for Indonesia the revenue loss in which the biggest tariff revenue loss for Indonesia comes from *Tractors (other than tractors of heading 87.09).*

Both countries are expected to gain consumer surplus and trade creation effect but Indonesia has lower consumer surplus and trade creation effect as it has already a relatively low tariff regimes.

Therefore, unless there are other concerns specific to both countries such as revenue loss or diverting cheaper products from other preferential agreements, it is suggested that access may be granted by each country at least starting from the top ten commodities that contributed gain in consumer surplus and trade creation effect. Based on the findings, Indonesia and Mexico will derive gains from bilateral FTA since they will access to goods at lower prices as long as the benefits pass from tariff reductions pass smoothly to consumers (exporters and importers are assumed not to interupt the market). To ensure this, a strong competition policy and judicial system should be implemented in order to shield the consumers against the potential abuse, for instance, potential dominant positions or against collusion from large importers. It is important to underline that the SMART Model does not evaluate the total impact of the FTA on welfare as a whole, because it only captures consumer surplus. In order to see the greater picture of the welfare effects as a whole, it is necessary to analyze the effects for producers.

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