

THE IMPACT OF ASEAN-INDIA FREE TRADE AGREEMENT IN MANUFACTURED TRADE OF THE MEMBER COUNTRIES¹

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ABSTRACT

This study has three objectives. First, to analyze the map and the flow of the ASEAN-India trade. Second, to analyze the position of Indonesia in terms of trade among ASEAN-India members. Third, to explore the impact of tariff elimination on the performance of trade of each member country, in particular for Indonesia. General Equilibrium Model and General Trade Analysis Project (GTAP) have been used in answering the research objectives. The results show that Trade flow among ASEAN-India still small compared with the trade carried out with developed countries. The share of intra ASEAN-India Trade still below 20 percent. Nevertheless, there is a tendency for members to increase their trade activities in recent years. In terms of intra ASEAN + India, all countries (Singapore, Malaysia, Indonesia, Thailand, The Philippines, and India) will experience an increase in their trade activities both in their import and their export. The implementation of ASEAN-India Free Trade will encourage the trade creation and trade diversion intra ASEAN-India. It can be concluded that ASEAN-India Free Trade will create a chance for all members to increase their trade activities. Nevertheless, this Agreement still need more time to be implemented. It is needed to give a chance to the members to prepare their competitiveness.

Keywords: AIFTA, International Trade, GTAP Model

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INTRODUCTION

Since May 2010 ASEAN has signed a free trade agreement with India. This agreement is known as the ASEAN India Free Trade Area (AIFTA). The possibility of opening up export opportunities to India after the agreement is quite reasonable because India has been a country that is quite protective of imports since a long time.

Progress in India-ASEAN connectivity is also supported by the "Look East Policy". There was a sharp increase of Indian exports to ASEAN countries in recent years. As a proof, in 2010, total trade between ASEAN and India reached 55.4 billion dollars, up 42 percent compared with 2009. Besides that, the value of ASEAN-India trade has also penetrated 70 billion U.S. dollars in 2012.

India is committed to a gradual lowering of tariffs by 79.35% of tariff lines, or about 3,289 tariff lines for the normal tariff category (normal track). For example: India will gradually lower the duty on CPO and RPO respectively 80% and 90% to 37.5% and 45% during 2010-2019. Furthermore, as the mainstay of coal from Indonesia to the Indian market will also enjoy a 0% import duty in early 2013.

Indonesia has opportunities to improve its exports to other products such as animal products, vegetables, fruits, plantation and other products. To seize these opportunities, Indonesia should also strengthen its competitiveness because the India's domestic market has been opened for all ASEAN countries. To anticipate the negative impact of the deal, the study that was able to see the impact is very necessary. Furthermore, to get a positive impact of the policy, an analysis that is able to provide a variety of information that can formulate some positive scenarios and policies is required. Based on the above considerations, this study becomes very important to be carried out.

The question that arises is whether the imposition of AIFTA region is able to improve the welfare of all member countries? Is this implementation is only able to lead the strong ASEAN countries to get stronger and the weak will get weaker? Looking at the various issues that are likely to arise and to anticipate the impact of tariff policy in AIFTA. It is necessary to find an answer whether the ASEAN-India trade (AIFTA) can be beneficial or detrimental to all states members or several of them?. Is the implementation of the AIFTA will be able to fix Indonesia's trade balance position, or even vice versa Indonesian imports will increased if AIFTA implemented zero tariff ?

The study aims to assess the impact of AIFTA on Indonesian macroeconomic performance. In particular, the purpose of the research are as follows:

1. To analyze the maps and the trade flows among AIFTA member countries.
2. To analyze the position of Indonesia in the context of trade between AIFTA member countries
3. To explore the impact of tariff elimination policy in exports and imports of each AIFTA member countries.

2. LITERATURE REVIEW

2.1. ASEAN International Trade

Although the ASEAN-India trade volumes continue to increase in the last two decades, but until now India is not a major trading partner of ASEAN. According to data from ASEAN Secretary, India is only the seventh trading partner of ASEAN countries (Table 1). ASEAN's main export partner is China, followed by the European Union countries, as well as Japan and the United States. Based on the same table, India is also not being the main origin countries of ASEAN imports. India ranks only ninth major imports from ASEAN origin. The contribution of trade with India is just 2.7 percent. This figure is equal to the contribution of ASEAN trade with Australia and Hong Kong.

Tabel 1. Top 10 ASEAN Partners in Trade

Trade partner country/region ^{1/}	Value			Share to total ASEAN trade		
	Exports	Imports	Total trade	Exports	Imports	Total trade
ASEAN	267,981.0	251,823.8	519,804.7	25.0	25.8	25.4
China	112,999.8	119,013.4	232,013.2	10.6	12.2	11.3
EU-27	115,036.4	93,548.4	208,584.8	10.7	9.6	10.2
Japan	102,890.8	103,746.3	206,637.1	9.6	10.6	10.1
USA	100,464.7	86,220.0	186,684.7	9.4	8.8	9.1
Republic of Korea	44,980.1	53,648.2	98,628.3	4.2	5.5	4.8
India	36,028.7	19,414.7	55,443.4	3.4	2.0	2.7
Australia	35,250.8	20,175.4	55,426.3	3.3	2.1	2.7
Hong Kong	33,039.4	21,292.3	54,331.7	3.1	2.2	2.7
Taiwan	16,122.3	18,989.3	35,111.6	1.5	1.9	1.7
Total top ten trade partner countries	864,794.0	787,871.8	1,652,665.8	80.8	80.8	80.8
Others ^{2/}	206,147.4	186,917.8	393,065.2	19.2	19.2	19.2
Total	1,070,941.4	974,789.6	2,045,731.0	100.0	100.0	100.0

Sources: ASEANSec. (2013)

Nevertheless, India is quite important for ASEAN particularly for Indonesia. The implementation of AIFTA is expected to boost Indonesian exports. India is currently ranked 6th Indonesia's main export destination with contribute of 7.4 percent of Indonesia's total exports. Thus, India is more significant in the Indonesian perspective than the ASEAN.

The implementation of AFTA is expected to affect the performance of ASEAN including Indonesia trade, both exports and imports. Therefore, in the implementation of free trade, Indonesia should be able to take steps carefully. This step is important so that the desired goal can actually be achieved, especially in 2016 AIFTA already set a zero rate.

Tabel 2. Market Structure of Indonesian Export

No	Negara Tujuan	Persen
1	China	12.3
2	Japan	10.9
3	United States of America	10.8
4	Singapore	9.3
5	India	7.4

Sources: Central Bank of Indonesia, 2014

2.2. Theory and Distortion in International Trade

Difference resources owned by countries push them to produce a product that can be produced at a relatively lower cost compare with other countries, and then sell that product to other countries that produce it with relatively more expensive. These conditions led to further specialization in trade. This policy will provide benefits or gains from trade in each country. (Caves et. Al., 1993; Chacoliades, 1978; Dunn Jr. and Mutti (2000), Krugman and Obstfeld (2000) and Salvatore, 2000).

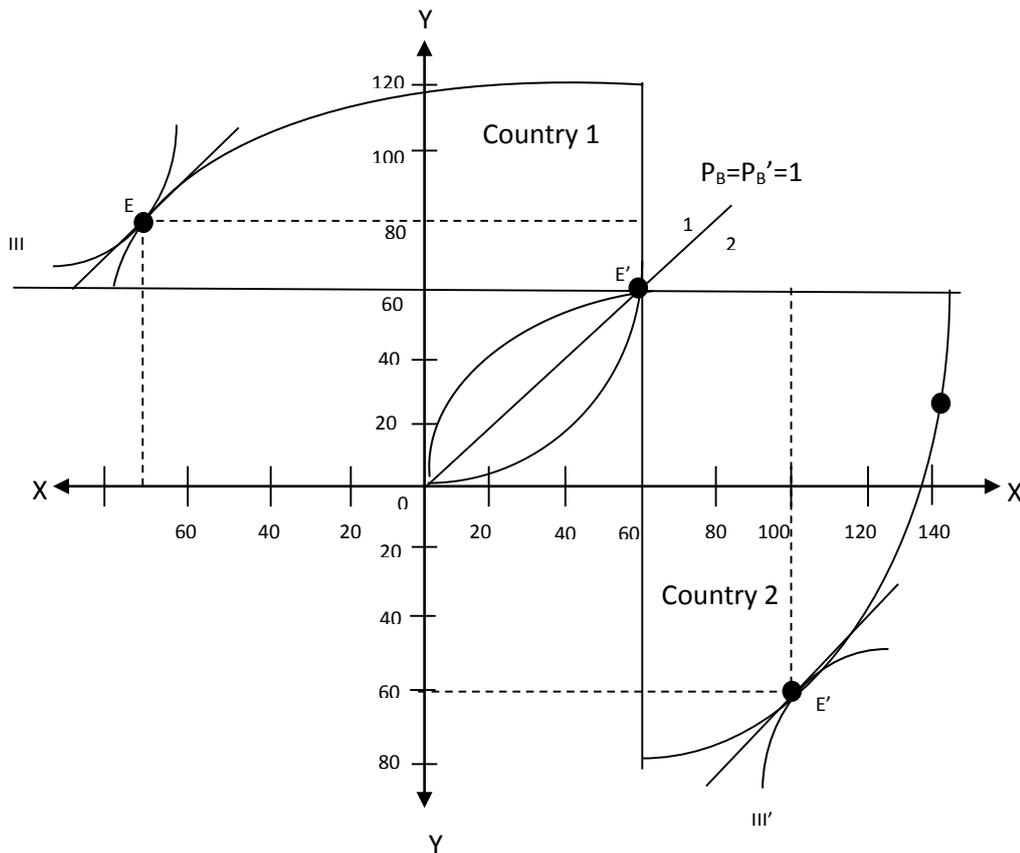


Figure 1. Process of Trade Between Two Countries point E *).

The process of trading can be described as in Figure 1. Upon the trade takes place, the state 1 will produce 130X and 20Y (point E which is identical to consume 70X and 80Y (also indicated by point E are the same but drawn from the central axis or 0), while the 60X and 60Y will trade the rest of the country 2. Meanwhile, country 2 produces 40X and 120Y (point E 'are also sources : Salvatore (2000) is identical to point E *). State 2 consumes 100X and 60Y (also symbolized by point E 'are the same, but refers to the central axis or 0), while the rest will be traded with countries 1.

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2.3. Previous studies about an Impact of Trade Liberalization

There are some researchers who have studied and analyzed the impact of liberalization on economic performance either in the context of a country or in a broader context. The results are varied. Some find a positive effect while others find negative effects.

Devaragan et.al. (1990) look at the impact of trade liberalization which is focused on the two sectors model. Using simultaneous equations, it was found that the change in terms of trade (TOT) in African countries on one hand has raised the income effect which causes the demand for domestic goods raised sharply. On the other hand the policy would not be able to create economic recovery for these countries, in fact, it will be worsening trade balance. This finding is consistent with Aggarwal and Agmon in Wijaya (2000) and Paulino and Thirwall (2004).

Another examination of the impact of trade liberalization was also carried out by Lopez (2003). In his study, Lopez examined the impact of regional trade liberalization, including NAFTA, on the balance of payments and balance of Mexico's trade during the 1980s. He come to the conclusion that trade reforms during the 1980s

significantly affects trade, export and import. It is, however, the effects of NAFTA can be ignored. It means that NAFTA did not give any effect on exports and imports as well as Mexico's balance of payments. There is a prediction that the differences in economic structure of member countries are not the cause of the emergence of such effects.

In the context of AFTA, impact of trade liberalization has been examined by the Judge (2004). The finding showed that the impact of AFTA was significant enough for the economy of member countries. Using Recursive Dynamic Multi-Region Computable General Equilibrium, trade liberalization is predicted to increase trade among member countries of ASEAN as a whole. It is, however, among the ASEAN member countries, Indonesia is one of members that experience the smallest increase in real GDP.

Emilia and Haryadi (2009) find that Trade flow among ASEAN countries still small compared with the trade taking with developed countries. The share of intra ASEAN Trade is still below 20 percent. In terms of intra ASEAN, ASEAN 5 (Singapore, Malaysia, Indonesia, Thailand, and The Philippines) still dominate the trade activities. Meanwhile, the new comers such as Vietnam, Brunei, Lao, and Cambodian are still left behind. The implementation of ASEAN Free Trade will increase the trade creation and trade diversion intra ASEAN. A large part of these impacts was occupied by the ASEAN 5.

Emilia and Haryadi (2009) also argue that the new comers have not been ready yet to follow the free trade in the existing condition. This argument is indicated by (1) larger increase in their import rather than an increase in their export, (2) a decrease in their welfare. The finding showed all the new comers experienced a decrease in their welfare. It means that if the free trade is implemented soon, the new comers will tend to be consumers rather than exporters. Emilia and Haryadi (2010) come to the conclusion that ASEAN Free Trade Area still need more time to be implemented.

2.4. General Trade Analysis Project Model

GTAP model is a CGE model that uses as a tool of analysis and explicitly described by Hertel and Tsigas (1997), and Oktaviani (2008). GTAP model is basically the same as the national CGE model. Both the GTAP model and CGE model use the same basic concepts of current expenditure and purchasing between economic actors. Both are structural models built on the basis of microeconomic theories that explain in detail the behaviors in each economic agent (behavioral equations).

The main difference between the national CGE model and the GTAP model lies in the coverage area. In the CGE model, interaction among agents takes place only in one country or region, whereas in the GTAP model interaction among agents takes place between countries / regions. In addition, GTAP also includes a global transportation and mobility investment. Thus, the GTAP model can explain the impact of policies among countries, while the CGE model is limited only in one region or country.

Several advantages of general equilibrium model (GTAP) compared with other models can be explained as follows: First, compared with partial equilibrium analysis: (1) GTAP model would used better in analyzing intersectoral linkages and linkages among sectors within the context of trade among countries (de Melo, 1988), (2) GTAP model has strong microeconomic foundations that include microeconomic behavior relationships and its parameters, therefore GTAP model see the economy as a complete system (Dixon at.al., 1992), (3) GTAP model is able to provide more information than the partial equilibrium model.

Second, compared with macro econometric models, CGE models can see the impact on a particular year, whereas the model of macro econometric usually uses time series data, which can not be applied in a given year. In addition, by using a CGE model, the relationship between macroeconomic and macroeconomic can be known, while analysis of the impact on macroeconomic models can only be done at the macro level (Horizon in Oktaviani, 1997).

Third, compared with other models such as multi-sector model of Input-Output (IO), CGE models have several advantages including: (1) CGE model has a strong microeconomic foundation so the model will be able to facilitate the modelers in interpreting the simulation results, because the CGE model contains a complete specification of supply and demand in all markets (Robinson, 1989 in Judge 2004), (2) CGE models can be used to analyze the impact of policy in all economic sectors simultaneously, while the Input-Output model can only analyze the impact of policies on industrial level. Unlike the Input-Output model where price is an exogenous variable, CGE models has set price as an endogenous variable, so that the substitution among production factors can be involved in the model (Horizon, 1997).

Fourth, compared with the model of Social Accounting Matrix (SAM), CGE models have several advantages: First, CGE models have included non-linear equations, while SAM still using model of linear equations. Second, CGE models include price as an endogenous variable, while in the SAM model, the price is still assumed to be exogenous variables. Among CGE models, GTAP model has the advantage of being able to see the economic impact that occurs between states in a lump sum (See Hertel, 1997; oktaviani, 2000; and Judge, 2004, Haryadi, 2011).

3. METHODS

3.1. Types and Sources of Data

This study use secondary data mostly from a database Alayisis General Trade Project (GTAP) version 7. Other complementary data derived from relevant agencies such as the World Bank, the International Monetary Fund, Bank Indonesia, Central Bureau of Statistics, ASEANSec, Ministry of Commerce, Ministry of Industry, Department of Foreign Affairs and others. The main analytical tool used is a multicounty CGE model GTAP 7.

GTAP in the data base contained 87 countries / regions and 57 commodity sectors. Data country / region and many sectors will be grouped and separated in accordance with the purposes of this study. The process of sorting and merging this (disaggregation and aggregation) will be determined by a variety of considerations: (1) for the ASEAN countries, while these countries stand alone in

Table 3. Aggregation of Countries/Regions based on GTAP Aggregation

Aggregation based on GTAP Database			
	New Aggregation		Old Region
	Code	Description	
1	Chn	China	China
2	Ind	India	India
3	Jpn	Japan	Japan
4	Ina	Indonesia	Indonesia
5	Mys	Malaysia	Malaysia
6	Tha	Thailand	Thailand
7	Phl	Philippines	Philippines
8	Vnm	Vietnam	Vietnam
9	Spr	Singapore	Singapore
10	XSE	Other Asean	Other ASEAN
11	USA	USA	USA
12	EU	European Union	Austria;Belgium; Denmark; Finland; France; Germany; United Kingdom;Greece;Ireland;Italy;Luxemburg;Netherlands;Portugal;Spain;Sweden
12	ROW	All other region	Rest of Oceania; Hong Kong; Taiwan; Rest of East Asia; Singapore; Rest of Southeast Asia; Canada; Mexico; Rest of Neorth America; Columbia; Rest of Andrean Pact; Argentina; Brazil; XChile; Uruguay; Rest of South America; Central America; Rest of FTAA; Rest of The Carribbean; Switzeland; Rest of EFTA; Rest of Europe; Albania; Bulgaria; Croatia; Cyprus; Czech Republic; Hungaria; Malta; Poland; Romania;

			Slovakia; Slovenia; Estoria; Latvia; Lithuania; Russian Federation; Rest of Former Soviet Union; Rest of Middle East; Morocco; Tunisia; Rest of North Africa; South Africa; Rest of South African CU; Malawi; Resto of Sub-Saharan Africa; Armenia; Azerbaijan; Georgia; Iran; Rest of Western Asia; Ethiopia; Nigeria; Sinegal; Ukraina; Rest of Eastern Europe; Norway; Costa Rica; Guatemala; Nicaragua; Panama; Egypt.
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the GTAP data base, it will be left to stand alone, but when in the data base ASEAN member countries are located in an area that would normally be left to join because its contribution in the international trade is quite small. The same condition will be treated in the commodities sector, (2) manufacturing commodities are separated by industry groups such as those found in the data base GTAP 6.2. Basing on the above considerations, it is planned to study the

Table 4. Aggregation of sectors based on GTAP Aggregation

Aggregation based on GTAP's Database			
	New Sector		New Sector Description
	New Product Code	Comprising	
1	textile		tex
2	Wearing Apparel	Wearing Apparel	wap
3	Leather	Leather Products	lea
4	Wood	Wood products	lum
5	Paper	Paper Products	ppp
6	Chemical	Chemical, rubber, plastic products	crp
7	motor	Motor Vehicle and parts, Tansport equipments	mvh otn
8	electronic	Electronic equipments	ele
9	machinary	mesin-mesin	ome
10	Palm Oil	Crude Palm Oil	vol
11	Other Vegetable Oil	Other Vegetable Oil	osd
12	Food	Food made of sugar,milk, and other	c_b mil sgr ofd b_t
13	Other Manufacture	Other Manufacture	omf
14	Agriculture	Agriculture	pdr wht gro v_f osd c_b pfb ocr ctl oap rmk wol frs fsh omt mil pcr sgr ofd b_t
15	Mining	Coal, oil and gas, mineral products	coa oil gas omn p_c nmm i_s nfm fmp
16	Services	Services and activities NES	ely gdt wtr cns trd otp wtp atp cmn ofi isr obs ros osg dwe

countries or regions will be aggregated into 13 regions (Table 3), while commodities are grouped into 16 (Table 4).

3.2. Methods of Data Analysis

Data were analyzed both qualitatively and quantitatively. Qualitative analysis is intended to look at the development and trade flows and to determine the contribution of member countries in intra and extra ASEAN trade. Based on this analysis, it will be known direction and be identified opportunities that could be exploited by Indonesia. Quantitative analysis was conducted to measure the impact of trade liberalization policies that have been agreed ASEAN. GTAP model in detail can be seen in Hertel (1997).

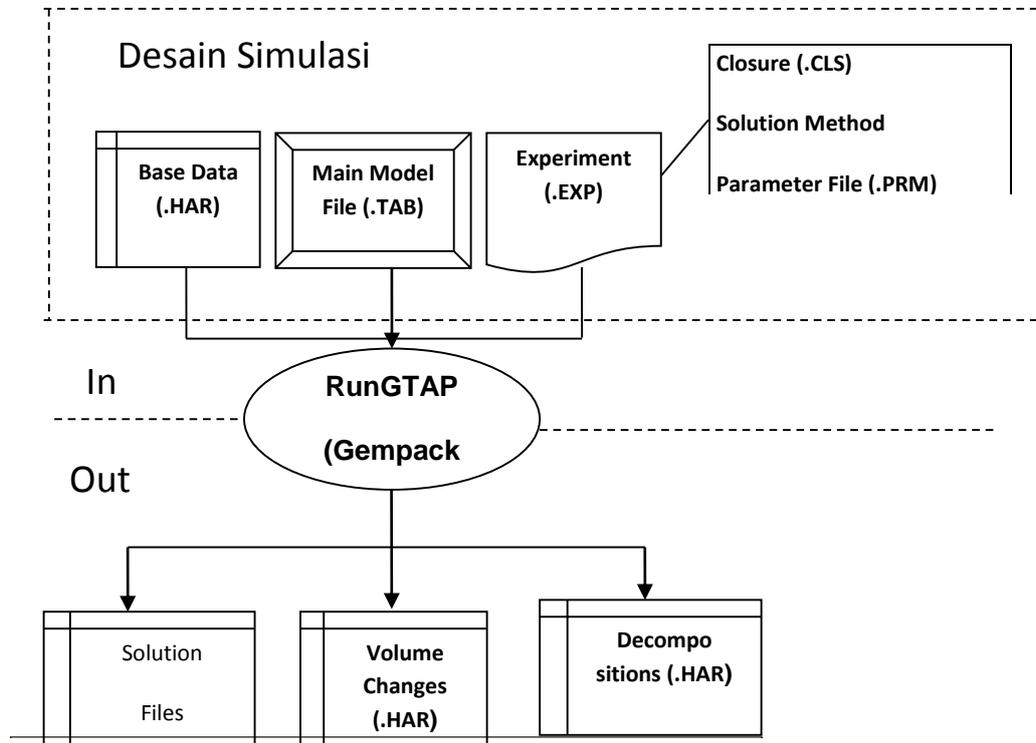
3.3. Data Processing Method

GTAP model processed using software RunGTAP. Stages of data processing can be explained by Figure 2. Process of aggregation of sectors and countries / regions performed using GTAPAgg.

The processing of data will be done using RunGTAP adjustment closure (cover model) and shock in accordance with the purpose of research. Processed data will produce output (out) like solution, volume changes, and decomposition. Completion of this section include file solution (solution file), change in volume (volume changes), and the decomposition (decomposition).

After aggregating regions and sectors, then made a big shock adapted to deal with the governments of ASEAN countries. Then performed simulations to see the impact. Through in-depth analysis of the process (in-depth study) will be able to explain the results obtained by the changes that will occur as a result of the implementation of the policy of free trade in ASEAN.

Figure 3. Process of aggregation of sectors and countries / regions performed using GTAPAgg.



Source: GTAP 7. data base.

3.4. Simulation policies

Simulation of the impact of policy on the elimination of trade tariffs is done by removing import tariffs in total either included in Inclusion List, Temporary List, Sensitive List, and General Exception List. This simulation aims to accommodate the AIFTA agreement would eliminate tariffs in total no later than in 2020.

RESULTS AND DISCUSSIONS

4.1. Flow maps of Indonesian Trade And its Position among ASEAN Countries and India

Among seven countries / territories, Singapore appears to be a major destination countries (Table 5). It means that Singapore is a promising market for all ASEAN members. Total of Singapore export achieved US\$118,182.1 million, or ¼ of the total of trade among ASEAN India US\$ 488.051.1 Million.

Table 5. Map of Intra ASEAN Trade Flows Based On Market Price

US\$ Million

Country	Ina	Mys	Tha	Phl	Spr	India	A+I	ROW	Total
Ina	0	2478.5	1648.4	937.8	5498.4	648.8	11211.9	66935.2	78147.1
Mys	1662	0	3569.1	1314.6	19108.7	1317.3	26971.7	107110.9	134082.6
Tha	1400.8	3450.9	0	1304	5054.3	2719.9	13929.9	76047.6	89977.5
Phl	190.8	1328.9	1634.1	0	2752.5	119.6	6025.9	34518.5	40544.4
Spr	3404.9	12994.2	4317.3	2768.2	0	3170.7	26655.3	91526.8	118182.1
India	205.5	457.7	1560.5	417.1	1163.4	0	3804.2	23313.2	27117.4
A+I	6864	20710.2	12729.4	6741.7	33577.3	7976.3	88598.9	399452.2	488051.1
ROW	36958.1	55356	53016.4	36380.9	83136.7	22676.4	5890797	996987.90	6887784.90
Total	47047.1	80257.3	69508.8	44992.3	124483.5	35028.1	6660762	715074	7375836

where:

Ina = Indonesia; Mys = Malaysia; Phl = Philipina; Spr = Singapura; India = India; A+I = ASEAN + India; ROW = Rest of the World

This fact shows that Singapore has been a center of trade in the ASEAN region and also a transit place for product from overseas (Table 6). These countries are Indonesia, Malaysia, Thailand, Philippines, Vietnam, and India. In this study, other ASEAN countries are Lao, Cambodia, Myan Mar, and Brunei Darussalam.

Table 6. Countries Become Major Destination Trade in the ASEAN-India Regional

Country/Region	Main Destination of Export		
	I	II	II
Indonesia	Singapore	Malaysia	Indonesia
Malaysia	Singapore	Thailand	Indonesia
Philippines	Singapore	Malaysia	Thailand
Thailand	Singapore	Malaysia	Indonesia
Vietnam	Singapore	Thailand	Philippines
Singapore	Malaysia	Thailand	Indonesia
India	Singapore	Thailand	Malaysia

Source: GTAP 6.2. (processed) information

Where,

I = the country's largest export destination

II = second largest export destination

III = third largest export destination

Different with the export target, ASEAN members and India are still placing Singapore as the main origin of imports (Table 7). Among the seven countries included in the simulation, all of them put Singapore as the main countries of origin of their imports.

Table 7. Countries Become Major Destination Trade in the ASEAN Region

Negara/Wilayah	Origin of Import		
	I	II	III
Indonesia	Singapore	Thailand	Malaysia
Malaysia	Singapore	Thailand	Indonesia
Philippines	Singapore	Malaysia	Indonesia
Thailand	Singapore	Malaysia	Indonesia
Vietnam	Singapore	Thailand	Indonesia
Singapore	Malaysia	Indonesia	Thailand
India	Thailand	Singapore	Malaysia

Source: GTAP 8. (processed)

Where,

I = country largest import origin

II = second largest import origin country

III = third largest import origin country

When further examination was carried out among other ASEAN countries, it can be seen than only Laos which places Thailand as the main supplier of its domestic market. This condition is expected to have a closely related to the regional location. Thailand is a country which borders with Laos.

4.2. Indonesian Position Among the ASEAN and India

Map of the status and position of Indonesian trade among ASEAN+India can be seen in Table 8. Based on the table, it can be seen that, overall, Indonesia is a net exporter of manufactured products. Meanwhile, the largest imports consist of machinery and chemical products. Indonesia is the largest trade surplus comes from wood products and chemical products, while the largest deficit came from machinery and motor vehicle products. In the context of intra-ASEAN trade of manufactured products, Indonesia is also a net exporter status (Table 8).

Table 8. Map Status and Position of Manufacturing Indonesia Trade Balance in the Context of the World Trade

Product	Export	Import	Status	(U.S. \$ Million)
				Deficit/ surplus
textile	4,439.5	2,059.5	Net Exporter	2380
Wearing Apparel	4,668.9	154.6	Net Exporter	4,514.3
Leather	2,950.9	296.5	Net Exporter	2,654.4
Wood	5,978.6	147.7	Net Exporter	5,830.9
Paper	3,300.9	960.6	Net Exporter	2,340.3
Chemical	5,149.6	6,190.2	Net Importer	-1,040.6
motor	705.2	3,357.7	Net Importer	-2,652.5
electronic	8,508	2,887.2	Net Exporter	5,620.8
machinary	9,101.6	11,977.9	Net Importer	-2,876.3
Palm Oil	1,377.5	39.8	Net Exporter	1,337.7
Other Vegetable Oil	15	349.2	Net Importer	-334.2

Food	2,728.8	1,502.7	Net Exporter	1,226.1
Other Manufacture	1,563.3	1365	Net Exporter	198.3
Balance of Trade	50,487.8	31,288.6	Net Exporter	19,199.2

Source: GTAP 8 (processed)

4.3. Impact of AIFTA on Its Trade Performance

4.3.1. Impact of AIFTA on Its Export and Import

Impact of free trade on ASEAN exports can be seen from Table 9. Lines in each column of the table shows the exports while at each table shows the

Table 9. Impact of the ASEAN India Free Trade on Members Trade Balance

(percent)

Product/Negara		Indonesi a	Malaysia	Thailand	Philipina	Vietnam	Singapura	India
textile Wearing Apparel	Export	79.66	51.92	72.24	165.26	40.50	91.16	149.2
	Import	39.74	73.94	156.35	26.92	113.1	2.84	37.02
Leather Wood	Export	115.67	50.02	72.25	64.74	115.3	143.52	136.4
	Import	57.12	70.17	164.38	33.14	138.6	2.11	32.36
Paper Chemical	Export	49.49	79.07	29.07	136.28	154.1	77.77	76.67
	Import	31.65	86.94	237.43	35.27	185.1	2.34	23.73
motor electronic	Export	51.06	13.27	36.94	86.87	46.88	47.43	63.88
	Import	18.05	23.21	125.27	18.44	149.6	-0.14	11.88
machinary Palm Oil	Export	25.74	53.92	25.61	42.05	69.63	20.32	29.09
	Import	22.32	36.17	96.54	15.56	88.78	4.54	2.48
Other Vegetable Oil Food	Export	22.42	22.44	15.15	29.76	19.67	19.59	79.77
	Import	24.92	20.71	67.02	18.21	71.94	1.82	4.19
Other Manufacture textile	Export	170.80	144.62	150.40	157.76	99.62	40.90	177.7
	Import	75.49	123.81	261.24	79.88	324.1	5.66	71.67
Wearing Apparel Leather	Export	39.05	22.51	63.71	4.23	11.45	16.34	300.7
	Import	13.83	5.95	49.27	4.88	348.36	1.21	34.50
Wood Paper	Export	34.18	34.21	24.07	28.13	42.56	27.08	34.22
	Import	16.87	26.76	83.27	17.99	70.30	1.41	7.86
Chemical motor	Export	14.79	27.88	-12.77	-21.30	-11.62	44.50	4.20
	Import	5.39	6.12	34.72	10.93	-13.62	5.74	-3.61
electronic machinary	Export	79.94	31.61	22.87	4.29	-5.03	64.59	42.40
	Import	-5.01	-2.18	217.33	6.04	23.42	5.34	-4.27
Palm Oil Other Vegetable Oil	Export	89.27	65.53	17.03	50.94	33.64	82.11	77.14
	Import	30.11	33.73	207.84	13.53	94.26	8.56	27.64
Food	Export	119.76	79.00	137.39	90.82	115.8	49.93	56.22
	Import	138.08	17.10	144.75	119.91	141.9	0.99	86.13

percentage changes of import. Simulation results show that the implementation of AIFTA affects on increasing in the percentage of intra-AIFTA trade. All ASEAN countries experience increased in their trade (Table 9).

Although most of the ASEAN countries showed a relatively large increase in imports, the country/region is also experiencing an increase in exports. The simulation results prove the theory of economic integration which

states that international trade will result in two things: trade creation and trade diversion that can be seen from the increase in intra ASEAN trade..

Theoretically, the elimination or reduction of trade barriers including reduction of tariff, reduction of export subsidies or reduction of domestic support clearly affects the economy of all countries in the world. Haryadi (2008) proved that the removal of barriers in the world trade overall impacted on improving people's welfare. It is however, when viewed carefully, not all countries experienced an increase in welfare. Some states even showed a tendency to decrease welfare.

4.3.2. Free trade and Welfare

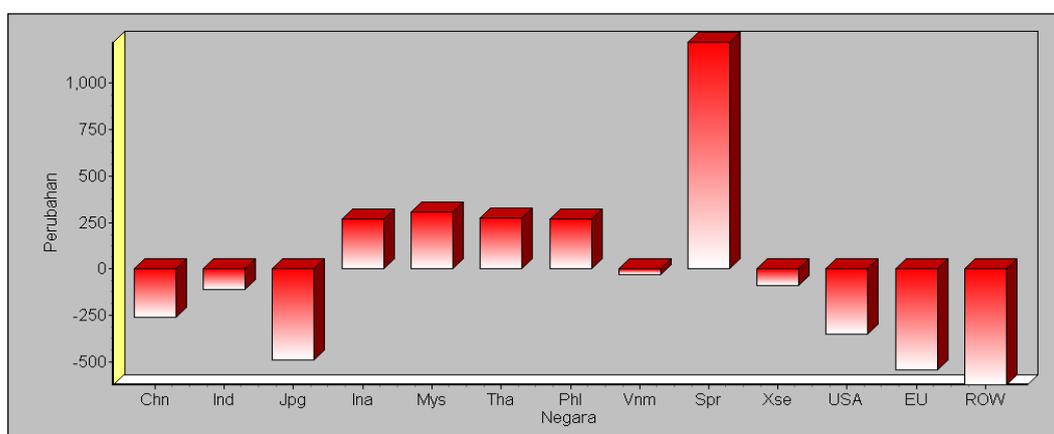
The results of the simulations performed in this study were also showing the same thing. The implementation of the ASEAN-India free trade is managed to improve the welfare of society as a whole (Table 10). However, if it is explored further, the policy was not able to improve the welfare of the people in all members. This means that the implementation of AIFTA will not be able to create a free trade welfare evenly.

Table 10. Impacts Implementation of ASEAN-INDIA Free Trade on World.Macroeconomic Performance .

Indicators	Change
World Trade Price Index	0.0001%
World Trade Volume	0.0015%
World Trade Value	0.0016%
Walras Demand	-0.0006%
Walras Suooly	-0.0006%
	0
World Welfare	US\$ 254.2 Billion

As it is shown in Figure 3, from 7 aggregations ASEAN-INDIA, only 5 countries show an increase in welfare as a result of treatment of free trade in the region. The five countries are increasing their welfare are Indonesia, Malaysia, Thailand, Philippines, and Singapore. All these countries are countries that already exist and are founding members of ASEAN-INDIA. In contrast countries those are new in the ASEAN-INDIA economic foundation and has relatively less powerful in fact harmed by the implementation of zero tariff on ASEAN-INDIA, including India.

Figure 3. Enforcement Impact of ASEAN-INDIA Free Trade against Welfare Member State



4.3.3. Economic analysis

The impact of the implementation of the ASEAN free trade on the performance trade-INDIA member states have successfully explored. As it was expected, the impact of the implementation of zero tariff policy is to improve the welfare of society as a whole. It is however, when it is examined further turns the impacts are not uniformly distributed. Each member countries get different effects.

Indonesia, Malaysia, and Singapore are three of the ten member countries of ASEAN-INDIA enjoying zero tariff policy impact implementation in the region. Meanwhile, member states of ASEAN-INDIA such as Thailand, Philippines, Vietnam, Brunei, Laos, Cambodia, and Myanmar did not obtain significant positive impact.

The simulation results show the three (3) important points of interest in deeply observed: (1) the impact of liberalization has led to the increase in exports in almost all member states of ASEAN-INDIA, (2) concurrent impact of rising exports, the implementation of the ASEAN free trade area-INDIA has also led to a surge in imports in almost all countries, (3) the impact of the increase in exports and imports in each ASEAN member country-INDIA differ between each other.

The increase in exports and imports with different magnitudes cause the net impact is received by the member states also differ. Countries such as Indonesia, Malaysia, Thailand, Philippines, and Singapore enjoy the positive impact of the zero tariff policy. This impact is shown by an increase in the welfare of each of these countries (Figure 4). In contrast, a relatively new member states enter as members of ASEAN-INDIA harmed due to a decrease in the level of welfare.

The results showed that at the time of the ASEAN free trade area-INDIA implemented, there will be an increase in the volume of trade among the member countries of ASEAN-INDIA. The increase in trading volume is realized in the form of increased exports, followed by an increase in imports. Thus the integration of economic theory that states that free trade would create an increase in the volume of trade (trade creation) can be proven.

These findings suggest that the implementation of free trade will create opportunities for member countries to increase the intensity of trade in the pursuit of foreign exchange. The intensity of the trade can be done considering the greater export opportunities. The findings suggest that the implementation of free trade will result in the transfer of trading activities of member states outside the country to fellow members. It is However, not all countries of ASEAN-INDIA experience an increase in their trade shows. For example, the country of Thailand is still focusing its trade with countries outside ASEAN-INDIA. The visible indication of Thailand's trade balance shows that the percentage increase in exports is smaller than the increase in imports, while exports outside Thailand to ASEAN-INDIA show improvement.

The increase in the volume of trade among member countries of ASEAN-INDIA is strongly influenced by the level of tariffs applied before the policy deletion is done. If the rate of pre-application level zero rate of a country is high enough, then the country will be negatively impacted if done free trade. Striking example occurred in the country of Thailand. Among the member countries of ASEAN-INDIA, Thailand is the highest level of protection. The impact is when the ASEAN-INDIA Free Trade is implemented, then the product of Thailand will be hard to compete at the level of the ASEAN-INDIA. Therefore, from the simulation results it appears that Thailand experienced a smaller increase in exports even sometimes tend to decline to trade among the ASEAN-INDIA. In contrast imports from ASEAN-INDIA Thailand generally increases sharply if the zero rate applied current.

Some countries are unable to compete in the ASEAN-INDIA shift some of its exports to countries outside the ASEAN-INDIA. One indication of this is shown by Thailand. Some Thai products such as food, motorcycles and other products showed an increase in export to ASEAN-INDIA. Despite the increase in percentage is not so high, but because of the volume and value of export to the ASEAN-INDIA relatively large, the increase in size and value will also be large enough volume.

5. CONCLUSION AND POLICY IMPLICATIONS

The impact of the implementation of the ASEAN free trade area-INDIA (AFTA) on the performance of manufacturing industries of member countries including Indonesia successfully explored. The simulation results obtained from this research can be used as a reference material to formulate and make appropriate policy for Indonesia, especially in order to avoid the negative impact of this policy. Based on the description and explanation has been given in the previous section, it can be drawn a conclusion and policy implications.

1. Countries of ASEAN-INDIA still have a relatively large dependence on the developed world, either as their export destination and as a major supplier countries domestic needs, so that the external trade with ASEAN-INDIA greater than the internal.
2. Till now the strength of the economy, especially the manufacturing of commodity trading ASEAN-INDIA is still dominated by Singapore, followed by Malaysia and Indonesia, Thailand and Philippines. The position of Indonesia is in the Rank 3.
3. The implementation of ASEAN free trade area-INDIA will have an impact on trade creation (increase in trading volume in the internal region) and diversion trade (a trade diversion of external trade to internal trade).
4. Impact of this policy largely enjoyed by the five-INDIA ASEAN (Indonesia, Malaysia, Thailand, Philippines, and Singapore's) all of whom are founding members of ASEAN-INDIA and has particularly been relatively more advanced economies than other countries in ASEAN.

Based on the above conclusions, the policy implementation of this study are as follows.

1. Simulation results show that the ASEAN-INDIA dependence on external trade is still relatively high. The visible indication of the volume of intra-ASEAN trade-INDIA only 19 percent of the total trade of ASEAN-INDIA. This dependence is mainly caused by the trade orientation of the Member States of ASEAN-INDIA was concentrated to countries outside ASEAN-INDIA. In addition, factors cause the price level is estimated as the product of a country outside ASEAN-INDIA relatively low, therefore, although the tariff was abolished but will not greatly affect the manufacturing trade of ASEAN-INDIA. To reduce the level of dependence, the ASEAN-INDIA must continue to improve the competitiveness that tariff cut further strengthen and improve the internal trade of ASEAN-INDIA.
2. Simulation results show that the elimination of domestic support can improve the welfare of the ASEAN-INDIA and the world as a whole. However, when viewed in more detail, it turns out not all ASEAN-INDIA enjoying the effects of free trade. Most ASEAN-INDIA especially a relatively new entry into the ASEAN-INDIA decreased levels of well-being. Therefore, the removal of barriers to intra-ASEAN trade-INDIA should be done gradually. This policy is expected to give more time for countries such as the ASEAN-INDIA Vietnam and Others to reorganize its manufacturing industry is one of the ways is through increasing competitiveness.
3. Simulation results show that the removal of tariff into the implementation of zero tariff will lead to trade creation and creates trade diversion. However, not all members enjoy this policy. Therefore, strengthening and increasing the intensity of trade in this region is needed. Therefore, all the policy makers in the ASEAN-INDIA must commit to the goal of ASEAN-INDIA boost intra-regional trade volumes.

REFERENCES

- Aseansec,2004, Asean secretariat, asean Economic corporation-Trade and AFTA: <http://www.aseansec.org/>.
- Aseansec,2013, Asean secretariat, asean Economic corporation-Trade and AFTA: <http://www.aseansec.org/>.
- Caves, E. Richard, Jeffrey A. Frankel, and Ronald W. Jones. 1993. *World Trade and Payments: An Introduction*. Sixth Edition. Harper Collins Collage Publisher. New York.
- Chacoliades, M. 1978. *International Trade: Theory and Policy*. Mc Graw-Hill Book Company, London.
- De Melo, J. and A. Panagriya. 1993. *Introduction in New Dimensions in Regional Integration*. Cambridge University Press, Cambridge.
- Devaragan, S., J.D. Lewis and S. Robinson. 1990. Policy Lessons from Trade Focussed : Two Sektor Models. *Journal of Policy Modelling* 12 (4) : 625 -657.
- Emilia and Haryadi, 2009, The impact of Free Trade Area on the Intra ASEAN Manufacture Trade, Research Report, Jambi University Reseach Center, Jambi.
- Haryadi, 2011. The implementation of asean-china free trade area In agriculture and its impacts on indonesian agricultural trade, Paper presented in the FAEA Conference, Kuala Lumpur, Malaysia
- Hertel, T. (ed), 1997, *Global Trade Analysis: Modelling and Applications*, Cambridge University Press, Cambridge.
- Hertel, T.W. and M.E. Tsigas, 1997. Structure of GTAP. In *Global Trade Analysis: Modeling and Applications*. Cambridge University Press, Cambridge.

- Krugman P & M Obstfeld, 2000, *International Economics: Theori and Policy*, 5th Edition, Addison-Wesley Publishing Company, USA
- Oktaviani, R, 2000, *The Impact of trade Liberalization on Indonesian Economy and its agricultural sektor*, Disertation, Department of Agricultural Economics, University of Sydney
- Oktaviani, R. Puspitawati, E. and Haryadi. *Impacts of ASEAN Agricultural Trade Liberalization on ASEAN-6 Economies and Income Distribution in Indonesia*, ASIA-Pacific and Training Network, Research Series, No 51, Januari 2008. www.artnetontrade.org.
- Paulino As & A. P. Thirlwall, 2004, *The Impact Of Trade Liberalisation On Exports, Imports And The Balance Of Payments Of Developing Countries*, *The Economic Journal*, 114 (February), F50–F72. _ Royal Economic Society 2004. Published By Blackwell, Publishing, 9600 Garsington Road, Oxford Ox4 2dq, Uk And 350 Main Street, Malden, Ma 02148, USA.
- Salvatore D, 2000, *International Economics*, 5th Edition, Prentice Hall, New Jersey, Amerika Serikat.
- Wijaya, A, 2000, *Dampak Liberalisasi Perdagangan terhadap Kinerja Ekonomi Indonesia: Suatu Pendekatan Makroekonometrika*, Disertasi, Tidak dipublikasikan.
- World Trade Organization, 2005, *Doha Work Programme ministerial Conference, Sixth Session*, Hong Kong, 13 - 18 December 2005