INDONESIAN AND UNITED STATES OF AMERICAN ECONOMIC PARTNERSHIP AGREEMENT EFFECT

Tajerin
Central Social and Economic Research of Marine and Fisheries
e-mail: jerin_jmhr@yahoo.com

Abstract

The paper analyzes fisheries trade effects from the implementation of Indonesian and the United States of American Economic Partnership Agreement (IUSEPA). The analysis is performed on the integrated world trade databases owned by World Trade Organization, United Nations Conference on Trade and Development, and United Nations Statistics Division, using Wits software package developed by the World Bank. The result indicates that in the future, Indonesian government as a party that will conduct bilateral economic partnership agreement with the United states, needs to propose or negotiate fishery import tariffs that imposed by the United States ranges from 0 to 7 percent.

Keywords: Bilateral economic agreement, fisheries, trade effect
JEL classification numbers: F53, F55

Abstrak

Makalah ini menganalisis pengaruh pelaksanaan *Indonesian and the United States of American Economic Partnership Agreement* (IUSEPA) terhadap perdagangan perikanan di Indonesia. Analisis ini dilakukan pada tiga basis data perdagangan dunia yang terintegrasi, yang dimiliki oleh *World Trade Organization*, *United Nations Conference on Trade and Development*, dan *United Nations Statistics Division*, menggunakan paket perangkat lunak Wits yang dikembangkan oleh Bank Dunia. Hasilnya menunjukkan bahwa di masa depan, pemerintah Indonesia sebagai pihak yang akan melakukan perjanjian kemitraan ekonomi bilateral dengan negara-negara Amerika, perlu untuk mengosiasikan tarif impor perikanan yang dikenakan oleh Amerika Serikat berkisar 0 sampai 7 persen.

Keywords: Perjanjian ekonomi bilateral, perikanan, pengaruh perdagangan
JEL classification numbers: F53, F55

INTRODUCTION

In the last two decades, Indonesia's economy has liberalized the trade in line with GATT – WTO (General Agreement on Trade and Tariff – World Trade Organization) framework and APEC (Asia Pacific Economic Cooperation). The period of 1980s is a period of very rapid liberalization. Although at the beginning, economic liberalization was intended to correct the economic policy of the previous regime, but it eventually evolved into a set of liberalization policies in order to address the development of globalization, especially related to the deregulation of trade and financial activities or investment.

In the case of trade, deregulation has been able to encourage the expansion of trade as a driving force for the Indonesian economy. This situation was shown by the trade volume in Indonesia, which experienced a significant increase in the last few years. In 1995, the export value reached USD 47,454 million. Five years later (in 2000), it has grown to USD 65,408

million, and in 2006 dropped to USD 63,253 million. Unlike the export, the growth of import value tended to be static. In 1995 the import value reached USD 40,921 million, in 2000 reached USD 40,367 million, and in 2006 dropped to USD 39,546 million. Despite the fluctuations in exports and imports, from 1995-2006, the trend in both export and import are positive (CBS, 1995-2006).

Similar condition can be observed form export and import performance of Indonesian fisheries. As an illustration, for the period 2001-2006, the export value of Indonesian fishery increased sharply from USD 1.63 billion in 2001 to USD 2.10 billion in 2006. However, the development of Indonesian fishery exports in 2004 experienced a sharp decline up to USD 1.24 billion. It then increased again, namely in the year 2005 to USD 1.91 billion, and in 2006 to USD 826.48 billion. Meanwhile, import value of Indonesia's fishery, especially for shrimp and tuna commodities, since 2002 to 2006 continued to experience significant improvement. In 2002 the value of imports of shrimp and tuna were USD 10,704 thousand and USD 1040 thousand respectivelly, and in 2006 to USD 3378 thousand and thousand of USD 5141 ((DKP, 2007).

On the other hand, the trade liberalization has encouraged domestic institutional and governance reform, which in turn further facilitate Indonesian trade (Kawai, 200 4). Since the early 90's, Indonesia and other countries in East Asia have increased financial openness, which contributed to the high economic growth. However, it also opened the financial vulnerability of the economy, including Indonesia, which culminated in the form of a financial crisis in 1997-1998

As a further response of the crisis, Indonesia established regional economic cooperation in trade (beside investment and finance) which then triggers Indonesia to strengthen economic cooperation in the form of Free Trade Agreements – FTAs - within bilateral economic partnership framework.

Some considerations to these bilateral FTAs are: (1) Preferential properties for the countries that conduct bilateral economic agreements, theoretically have positive impact for both countries (see, for example, Chanda and Sasidaran, 2008; and Karmakar, 2006); and (2) in the bilateral positions, negotiations become more flexible in considering aspects in the two countries having an agreement (Levy, 1997). According to Khor (2007) due to the flexibility, FTAs usually have a broader scope than the multilateral free trade. Theoretically, this FTAs will provide a transfer of trade benefits (trade diversion) and trade creation for each country's that engaging bilateral agreements.

In practice, FTAs can be implemented in the form of regional and bilateral FTAs. An example of regional FTAs is the economic cooperation among East Asia countries, such as the ASEAN-China FTAs, India-ASEAN FTAs, and in the pre-negotiation phase is ASEAN-EU FTA. The example for bilateral FTAs are those as practiced by the Japan-Singapore, Japan-Philippines and Japan-Indonesia in Economic Partnership Agreement – EPAs (Baldwin, 1995).

After a bilateral economic partnership agreement between Indonesia and Japan, it has been initiated negotiations to establish the same agreement with the United States. It is expected that the Indonesia and United State of America Economic Partnership Agreement/IUSEPA would be realized as soon as possible.

As another bilateral economic agreements, the essence of IUSEPA implementation is human welfare improvements through optimization of resource allocation and trading activities. Therefore, this study carried out in order to estimate the effect of trade namely trade diversion and creation of fishery products from IUSEPA.

Various papers have attempted to investigate aspects on bilateral trade. Baxter and Koupritsas (2006) provide a theoretical model to find determinants of trade flow across members of a bilateral trade agreement. Anderson and Windcoop (2003) develop a method that consistently and eciently estimates a theoretical gravity equation and correctly calculates the comparative statics of trade frictions. They find that national borders reduce trade between the US and Canada byab out 44%, while reducing trade among other industrialized countriesby about 30%.

Ghosh and Yamarik (2004) use extreme bounds analysis to test the robustness of the hypothesis that regional trading arrangements (RTAs) are trade creating. They find that at the extreme bounds, when all weight is attached to the prior distribution, none of the RTAs are found to be trade creating. As a result, they conclude that the pervasive trade creation effect found in the literature reflects not the information content of the data but rather the unacknowledged beliefs of the researchers.

This paper, as mentioned previously, intends to find out whether IUSEPA will provide net trade creation.

METHODS

Types and Sources of Data

This research was conducted using secondary data obtained from three sources of world trade database, namely TRAINS UNCTAD, UNSD COMTRADE, and WTO that integrated in WITS software package as developed by the World Bank, which can be accessed from http://wits.worldbank.org/website.

Data Analysis Method

Estimation analysis on the effects of trade diversion and creation of fisheries in IUSEPA was carried out in a partial equilibrium framework. Partial equilibrium framework has many advantages, such as allowing very detailed studies of the impact of trade policy instruments changing (such as through changes in tariff) with emphasis on market analysis as well as individual products. However, in practice, this partial equilibrium model has certain limitations, the main one is the intersectoral implications (second-round effects) of changes in trade policies that are not included in calculation. However, this model is more appropriate to analyze different basic and specialized treatment in simulation analysis, and working at a very detailed level (Grobmann and Busse, 2004).

Generally there are two basic methods of partial equilibrium that can be used to analyze the effects of trade diversion (*TD*) and trade creation (*TC*). First, the partial equilibrium model is built on the assumption that the commodity being analyzed is homogenous, and second, the partial equilibrium model is built on Armington assumption, which examined the nature of import demand function when imported goods and domestic production of goods used as imperfect substitutes (Grobmann and Busse, 2004).

This study uses the second one, namely partial equilibrium model with "Armington method". In practice, the Armington method is carried out using "SMART Model" approach. Basically, the model is a further development of "differentiated product model" that was developed by Verdoorn in 1969 (Grobmann and Busse, 2004). This model was originally formulated to analyze consumers (buyers) interests of commodities or products that are imported from producer countries. The model was further developed by UNCTAD and the World Bank since 1980s that can be used to analyze, not only the interests of consumer countries, but also producing countries who do trade agreement (economics).

Related to the goals of this research, the use of the SMART model is considered more appropriate in comparison to the predecessor (differentiated Product Model),

being able to analyze the effects of bilateral trade between developed and developing countries, without biased towards developed countries (Superior Party) as in the case with differentiated Product Model.

SMART model in WITS Software (World Integrated Trade Solutions) can be used to evaluate and observe the consequences and impact of trade policy changes in several variables associated with the consequences of bilateral cooperation, namely: effect of Trade Creation (*TC*) and Trade Diversion (*TD*).

SMART model of WITS has three types of elasticities: (1) Supply elasticities value 0.99 (or very close to one) which means that the increase in demand for certain goods will always be matched by the producer and exporter of the goods, without any impact on the goods price; (2) Import substitution elasticities of the same goods from different countries is imperfectly substitutable in the SMART model, import substitution elasticity has value 1.5 for each item; and (3) Import demand elasticity that measures the response of demand in the move to import prices. In the SMART model, import demand elasticity is based on price elasticities in international trade. In addition, the SMART model also has other important assumptions, namely: perfect competition, where the tariff cuts are fully reflected in prices paid by consumers.

Mathematical Model

Trade Creation (*TC*)

Trade creation (*TC*) captures aspects of trade development (liberalization) as in the case of Billateral Trade Agreement (*BTA*s). The derivation of *TC* equations is started from import demand and export supply function. Import demand function is simplified to country *j* from country *k* for commodity *i* (kind of fisheries commodities) and *t* (tariff for commodity *i*)

$$M_{tjk} = f(Y_j, P_{tj}, P_{ik}). \quad (1)$$

The export supply function for commodity *i* from country *k* can be simplified as follows

$$X_{ijk} = f(P_{ijk}). \quad (2)$$

The balance of trade between the two countries is the standard partial equilibrium equations

$$M_{tjk}=X_{ijk} \quad (3)$$

In a free trade area, domestic price of commodity *i* in country *j* from country *k* will change due to tariff changes:

$$P_{ijk}=P_{ikj}(1+t_{tjk}) \quad (4)$$

To derive the *TC* formula, according to Laird and Yeats (1986), equation is (4) totally derived to o*BTA*in:

$$dP_{ijk} = P_{ikj}dt_{ijk} + (1+t_{ijk})dP_{ikj} \quad (5)$$

Equation (4) and (5) substituted to obtain import demand equation elasticity:

$$\frac{dM_{tjk}}{M_{ijk}} = \eta_i^m \left(\frac{dt_{tjk}}{(1+t_{ijk})} + \frac{dP_{tjk}}{P_{ikj}} \right) \quad (6)$$

Identity equations (3), $\frac{dM_{ijk}}{M_{ijk}} = \frac{dX_{ikj}}{X_{ikj}}$ can be used to derive the export supply elasticity equation as follows :

$$\frac{dP_{ikj}}{P_{ikj}} = \frac{1}{\gamma_t^e} \frac{dM_{ijk}}{M_{ijk}} \quad (7)$$

which if it is used in Equation (5) allows to take into account the effect of *TC*. From Equation (3), the *TC* effects are similar to export growth of country *k* on commodity *i* to country *j*:

$$TC_{ijk} = M_{ijk}\eta_i^m \frac{dt_{ijk}}{\left(\left(1+t_{ijk}\right)\left(1-\eta_i^m/\gamma_i^e\right)\right)} \quad (8)$$

If $\gamma_i^e = \infty$, then the equation (7) can be simplified as follows :

$$TC_{ijk} = \eta_i^m M_{ijk} \frac{\left(1+t_{ijk}^1\right)-\left(1+t_{ijk}^0\right)}{\left(1+t_{ijk}^0\right)} \quad (9)$$

where TC_{ijk} is the sum of *TC* in USD million for commodity *i* that is affected by tariff changes and η_i^m is import demand elasticity for commodity *i* in the importing country of the relevant trading partners. M_{ijk} is the level of the current import demand for commodity *i*. t_{ijk}^0 and t_{ijk}^1 represent the initial and final tariff for commodity *i*. Thus *TC* is strongly influenced by current levels of imports, import demand elasticity, and relative changes of the tariff.

TradeDiversion (TD)

In contrast to trade creation (*TC*), trade diversion (*TD*) has the following equation:

$$\sigma_M = \frac{\Delta\left(\sum_k M_{ijk}/\sum_K M_{ijK}\right)\Big/\left(\sum_k M_{ijk}/\sum_K M_{ijK}\right)}{\Delta\left(P_{ijk}/P_{ijK}\right)/\left(P_{ijk}/P_{ijK}\right)}. \quad (10)$$

where *k* shows imports from partner countries, and *K* from the rest of the world (ROW). Equation (10) can be expanded further, through substitution and rearrangement, which can be used to obtain *TD* equation, as follows:

$$TD_{ijk} = \frac{M_{ijk}}{\sum_k M_{ijk}} \frac{\sum_k M_{ijk}\sum_K M_{ijK}\frac{\Delta\left(P_{ijk}/P_{ijk}\right)}{P_{ijk}/P_{ijK}}\sigma_M}{\sum_k M_{ijk}+\sum_K M_{ijK}+\sum_k M_{ijk}\frac{\Delta\left(P_{ijk}/P_{ijK}\right)}{P_{ijk}/P_{ijK}}\sigma_M} \quad (11)$$

Equation (11) can be simplified for the case of *EPA* (Economic Partenership Agreement) or *BTA* (Billateral Trade Agreement). In this study, *BTA* is between Indonesia as the producer of fishery products and the United Countrys (USA) as the main importer of fishery products. The terms of relative price movements in equation (11) as suggested by Laird and Yeats (1986), which captures the movement due to changes in tariffs or incidence of non-tariff distortions for partner countries and the *ROW*. Therefore trade partner countries switch to the *EPA*, TD^{EPA} can be captured by reducing equation (2) as:

$$TD^{EPA} = \frac{M^{USA}M^{ROW}\left(\frac{1+t_{USA}^1}{1+t_{USA}^0}-1\right)\sigma_M}{M^{USA}+M^{ROW}+M^{USA}\left(\frac{1+t_{USA}^1}{1+t_{USA}^0}-1\right)\sigma_M} \quad (12)$$

Equation (12) showes additional import of partner countries to its EPA partners as a result of the *TC*.

Framework of WITS

WITS program that is built on SMART model basis was used in the study through the mechanism of tariff change simulations. The program is a software that is developed by the World Bank which integrates three databases of world trade held by the WTO, TRAINS UNCTAD, and UNSD-COMTRADE

As a rule, each data-processing program requires a data set as input, and so does the WITS program. In order to generate the necessary information, it is necessary to have a data set that includes tariffs, export, import and other trading data from all countries in the world (http://wits.worldbank.org/website). One advantages of WITS program is the availability of connection to WTO data bank that integrate data from various institutions of world trade, such as WTO, UNCTAD and COMTRADE. The data sets used in this study are those of 2007. In addition, for simulation purposes, it also needs information about tariff changes.

Output from WITS software are divided into five modules, related each other, but have different objectives, namely: (1) Trade Effects Module, (2) Market View Module, (3) Welfare Effects Module, (4) Revenue Impact module, and (5) Exporter View Module (http://WITS.worldbank.org/website). However, according to the analysis in this study, only two modules that will be used, namely Trade Effects and Revenue Impact Module.

Selection of Simulation Scenario

Selection of simulation scenario in this study is basically associated with a major debate in international trade cooperation revolves around the question: "Should a country follow the policy of free trade or protectionist"? Given that the focus of this research is biletaral cooperation between Indonesia and the United States, theoretically both Indonesia and the United States could choose laissez-faire trade policies so that the commodities exchange between countries is not hampered. This condition is known as free trade. The opposite might happened, namely either Indonesia or the United States create conditions of autarky with all sorts of rules that turn off all incentives to make inter-state trade

However, in practice, there is no country in the world takes the extreme policies such as autarky. The existing trend is that these countries will take a policy in the spectrum between the two. In other words, either Indonesia or the United States would take steps toward free trade conditions, or the so-called trade liberalization. In contrary, protectionist efforts refer to the steps of a country to protect domestic businesses from the pressures of international competition, particularly through import tariff policy. As in the case of fisheries, the protection is seen from the amount of import tariff. Import tariffs to Indonesian fishery products was 0% - 15%, while import tariffs of fishery products to the United States was 0% -35% (DKP, 2007; and Satria et al., 2009).

Related to the implementation of the import tariffs, the research tend to make an analytical effect estimation caused by import tariff cutting. Furthermore, in order to simulate the process of effects estimation, first we need some "tariff-cutting scenarios" with the selection of representative possible effects of change (impacts) that will occur later.

Table 1: Simulation of Various Scenarios by Import Tariff Cutting Used in Analysis

SIMULATION				
Scenario-1:	Scenario-2:	Scenario-3:	Scenario-4:	Scenario-5:
IUSEPA refers to WTO direction "in stages" with the implementation of fisheries tariffs by 28% *)	IUSEPA refers to WTO direction "in stages" with the implementation of fisheries tariffs by 21% *)	IUSEPA refers to WTO direction "in stages" with the implementation of fisheries tariffs by 14,0% *)	IUSEPA refers to WTO direction "in stages" with the implementation of fisheries tariffs by 7,0%*)	IUSEPA refers to WTO direction "in stages" with the implementation of fisheries tariffs by 0% *)
Shock:	*Shock*:	*Shock*:	*Shock*:	*Shock*:
Cutting for Fishery Import Tariff by 20%	Cutting for Fishery Import Tariff by 40%	Cutting for Fishery Import Tariff by 60%	Cutting for Fishery Import Tariff by 80%	Cutting for Fishery Import Tariff by 100%

Note: *) Retrieved from equivalency results of import tariff rates (TBM) for Indonesian fishery to the United States, which is 0 - 35% (Table 1) with a magnitude range of fishery import tariff cuts (PTI) for 0% - 100%. TBM 0% is equivalent to PTI 100%, and TBM 35% equivalent to PTI 0%.
Source: Data simulation.

In practice, the selection of simulation scenarios are conducted with the consideration that there is not yet available reference policies related to tariff cuts in trade transactions applied in the bilateral economic agreement between Indonesia and the United States except that there is a tendency of tariff cuts of 100% or by applying the tariff rates of 0%.

In this study, the selection of import tariff-cutting scenarios is based on preliminary simulation of the sensitivity level of trade effect using WITS program analysis. The indicators are important in determining the degree of effect that may arise due to changes in tariffs in bilateral trade transactions (Bacchetta and Jammes, 2004).

By considering variations of representative selection for "tariff-cutting scenario", then based on these preliminary results of the simulation we use five possible scenarios, ie by 20%, 40%, 60%, 80% and 100% for purposes of simulation analysis in this study. Each simulation scenario is described in Table 1.

By considering variation of representative option for tariff deduction scenario especially on effect change possibility that possibly occurred, it is possible for us to use five tariff deduction scenarios, namely 20%, 40%, 60%, 80% and 100%, for simulation analysis in this research. All the scenarios were explained in the Table 1.

RESULTS DISCUSSION

Estimation Analysis of Trade Diversion and Creation Effect from IUSEPA

Effects estimation due to Indonesia - United States bilateral partnership agreements against trade diversion and creation for Indonesian fisheries are based on the results o*BTA*ined from *trade effect* module using WITS software. The module is one of the most important module to assess whether an economic cooperation and enacted tariff harmonization give effect on the trade diversion and trade creation.

Theoretically, the consequences in the form of trade creation (*TC*) and trade diversion (*TD*), are an explicit form of three basic principles in international trade cooperation (bilateral), namely "Most Favored Nations" (MFN), "RECIPROCITY" and "National Treatment" (Vinner, 1990 in Aryaji, 2004). The three principles imply for trade diversion (*TD*) and trade creation (*TC*) as the effect of bilateral trade cooperation as in IUSEPA. In this study, *TD* and *TC* are defined as follows. *TD* is a situation where IUSEPA divert trade from more efficient suppliers outside IUSEPA to less efficient suppliers within IUSEPA. *TC* is basically the IUSEPA post-establishment emerging of trade where supply comes from more efficient countries.

Table 2 and Figure 1 show that simulation results for each tariff cutting scenario (scenarios 1 to 5) do not give the effect of trade creation (*TC*), but trade diversion (*TD*), particularly for scenarios 4 and 5. The scenario of tariff cuts 20% to 60% (scenario 1, 2 and 3) do not create either *TD* and *TC* (nil effects) on each commodity or processed fisheries products.

The zero effects of trade diversion and trade creation for the three scenarios (scenario 1, 2, and 3) show that there is no change in the value of *TD* and *TC* arising from import tariff cuts for 20% to 60% of IUSEPA implementation, or in other words there is no difference in values between *TD* and *TC* before and after the IUSEPA implementation through import tariff cuts of 20%-60%.

However, this does not mean that there is no transaction or trading value, but means that the total value. It simply of trade in fisheries products by IUSEPA implementation for import tariffs cutting 20%-60% is still the same as before (without IUSEPA implementation), namely USD 11,572.656 thousand. This can be seen in Table 2 and Figure 5 in column heading 20-60% tariff cuts simulation or Scenario 1-3.

Table 2: Recapitulation of Trade Diversion and Trade Creation Effects from Tariff Cut Simulation that Processed Trade Effects Module (USD Thousand)

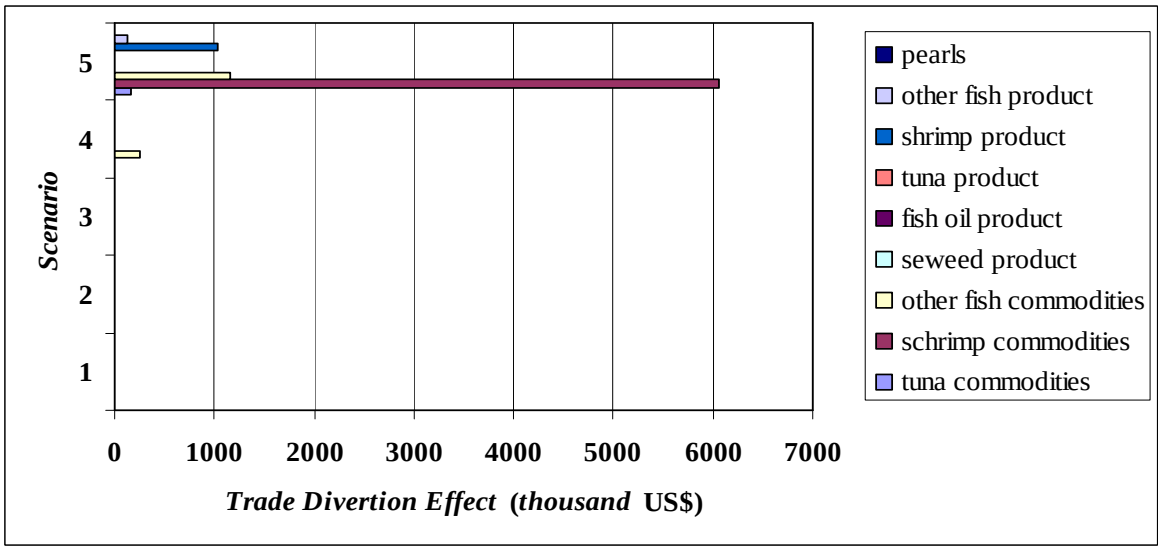
HS Code	Description	Tariff Cut Simulation 20 - 60% (Scenario 1 – 3)			Tariff Cut Simulation 80% (Scenario 4)			Tariff Cut Simulation 100% (Scenario 5)		
		Trade Diversion	**Trade Creation**	**Total Trade**	**Trade Diversion**	**Trade Creation**	**Total Trade**	**Trade Diversion**	**Trade Creation**	**Total Trade**
	Fisheries	**0.000**	**0.000**	**0.000**	**257.135**	**0.000**	**257.135**	**8,557.845**	**0.000**	**8,557.845**
03	**Fish and Crustaceans**	**0.000**	**0.000**	**0.000**	**257.135**	**0.000**	**257.135**	**7,384.203**	**0.000**	**7,384.203**
	Tuna	0.000	0.000	0.000	0.000	0.000	0.000	168.066	0.000	168.066
	Shrimp, Prawns, Lobsters	0.000	0.000	0.000	0.000	0.000	0.000	6,052.688	0.000	6,052.688
	Other Fisheries Products	0.000	0.000	0.000	257.135	0.000	257.135	1,163.449	0.000	1,163.449
12	**Seaweeds**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
15	**Fish Oils**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**2.202**	**0.000**	**2.202**
16	**Preparations of Fish, Crustaceans etc**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**1,171.440**	**0.000**	**1,171.440**
	Tuna	0.000	0.000	0.000	0.000	0.000	0.000	6.804	0.000	6.804
	Shrimp, Prawns, Lobsters	0.000	0.000	0.000	0.000	0.000	0.000	1,035.864	0.000	1,035.864
	Other Fisheries Products	0.000	0.000	0.000	0.000	0.000	0.000	128.772	0.000	128.772
71	**Pearls, natural or cultured**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
	Non Fisheries	16 959.508	0.057	16 959.454	26 901.820	0.130	26 901.690	17 4550.902	0.169	174 550.733
	Total	**16959.508**	**0.057**	**16959.454**	**27158.955**	**0.130**	**27158.825**	**183,108.748**	**0.169**	**183,108.578**

Source : Processed data using WITS software package (2009)

Table 3 : Recapitulation of the Effect on Import Tariff Revenue, Total Trade, and Trade Value as the Results of Various Import Tariff Cuts Simulations which is Processed by Revenue Effects Module

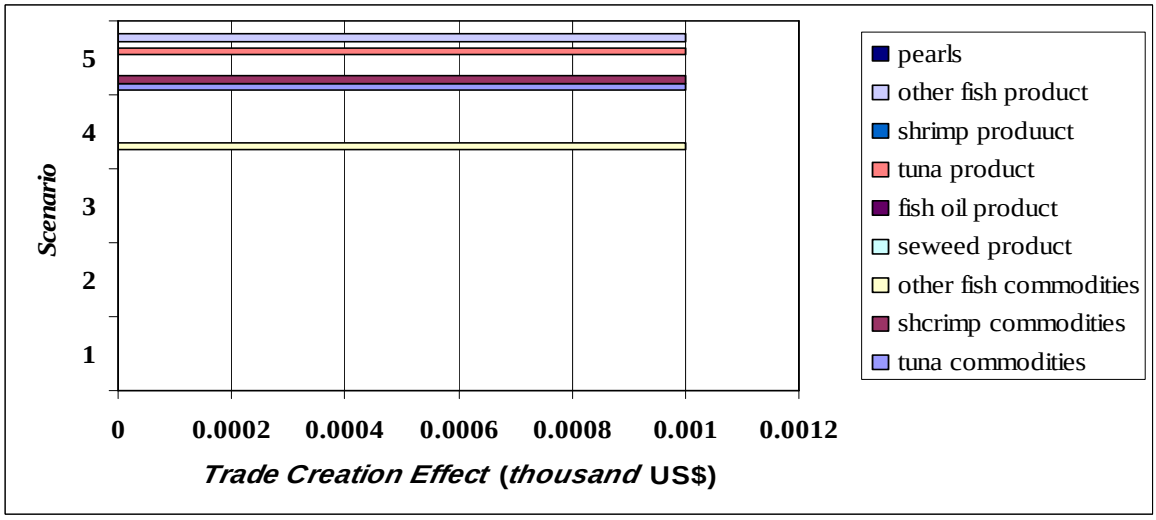
HS Code	Description	Tariff Cut Simulation 20 - 60% (Scenario 1 – 3)			Tariff Cut Simulation 80% (Scenario 4)			Tariff Cut Simulation 100% (Scenario 5)		
		Revenue Effect	Total Trade Effect	Trade Va lue	Revenue Effect	Total Trade Effect	Trade Va lue	Revenue Effect	Total Trade Effect	Trade Va lue
	Fisheries	**0.000**	**0.000**	**11,572.656**	**-69,211**	**257.135**	**11,147.204**	**-707.434**	**8,557.845**	**57,237.716**
03	**Fish and Crustaceans**	**0.000**	**0.000**	**11,572.656**	**-69,211**	**257.135**	**11,147.204**	**-564.631**	**7,384.203**	**39,310.269**
	Tuna	0.000	0.000	0.000	0,000	0.000	0.000	-17.958	168.066	3,048.381
	Shrimp, Prawns, Lobsters	0.000	0.000	8,064.258	0,000	0.000	2,688.086	-156.343	6,052.688	13,726.813
	Other Fisheries Products	0.000	0.000	3,508.398	-69,211	257.135	8,459.118	-390.330	1,163.449	22,535.075
12	**Seaweeds**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
15	**Fish Oils**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-3.272**	**2.202**	**7,078.238**
16	**Preparations of Fish, Crustaceans etc**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**-139.531**	**1,171.440**	**10,849.209**
	Tuna	0.000	0.000	0.000	0.000	0.000	0.000	-6.080	6.804	432.153
	Shrimp, Prawns, Lobsters	0.000	0.000	0.000	0.000	0.000	0.000	-86.964	1,035.864	2,736.289
	Other Fisheries Products	0.000	0.000	0.000	0.000	0.000	0.000	-46.487	128.772	7,680.767
71	**Pearls, natural or cultured**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
	Non Fisheries	-31,834.245	16,955.662	21,947,439.839	-39,413.836	26,901.691	17,131,496.755	-169,903.020	174,550.733	38,290,313.620
	Total	**-31,834.245**	**16,955.662**	**21,959,012.495**	**-39,483.047**	**27,158.820**	**17,142,643.959**	**-170,610.454**	**183,108.578**	**38,347,551.336**

Source : Processed data using WITS software package (2009)



Source: Data calculation.

Figure 1: Trade Diversion Effect from Indonesia - United States Bilateral Agreements on Various Tariffs Cutting Simulations



Source: Data calculation.

Figure 2: Total Value of Trade of Indonesia - United States Bilateral Agreements on Various Tariffs Cutting Simulations

From Table 3 and Figure 2, it can be inferred that for scenario 4, the o*BTA*ined effects on *TD* value is only from other fish (outside tuna and shrimp), and only in scenario 5 it o*BTA*ines large changes of *TD* for all commodities and processed fishery products. The o*BTA*ined value of the change for other fisheries in *TD* for scenario 4 is USD 257,135 thousand, while processed tuna commodities, seaweed and pearls have no *TD* effect. Beside these commodities, there is total value of trade for shrimp commodity but with the same value as before (without IUSEPA implementation). As shown in Table 4 and Figure 8 the total value of trade from other afisheries is USD 8,459.118 and amounted to USD 2,688.086 thousand for shrimp.

Table 4: Trade Values and Change of Fisheries and non Fisheries Product before and after IUSEPA using Tariff Cuts 100%

Code	Decription	Before IUSEPA*) (Thousand US$)	After IUSEPA**) (Thousand US$)	Change (effect) (US$ thousand)	(%)
	Fisheries	48,679.87	57,237.72	8,557.845	17.58
3	Fish and Crustaceans	31,926.07	39,310.27	7,384.203	23.13
	Tuna	2,880.32	3,048.38	168.066	5.83
	Shrimp, Prawns, Lobsters	7,674.13	13,726.81	6,052.688	78.87
	Other Fisheries Products	21,371.63	22,535.08	1,163.449	5.44
12	Seaweeds	0.00	0.00	0.000	0.00
15	Fish Oils	7,076.04	7,078.24	2.202	0.03
16	Preparations of Fish, Crustaceans e*TC*	9,677.77	10,849.21	1,171.440	12.10
	Tuna	425.35	432.15	6.804	1.60
	Shrimp, Prawns, Lobsters	1,700.43	2,736.29	1,035.864	60.92
	Other Fisheries Products	7,552.00	7,680.77	128.772	1.71
71	Pearls, natural or cultured	0.00	0.00	0.000	0.00
	Non Fisheries	38,115,762.89	38,290,313.62	174,550.733	0.46
	Total	38,164,442.758	38,347,551.336	183,108.578	0.48

Notes: (1) * Without IUSEPA implementation, (2) ** With IUSEPA Implementation mechanism using import tariff cuts 100%.
Source: Calculated based on the results of data processing using WITS Program (2009).

Scenario 5 resulted in *TD* effects for all of fisheries commodities, which amounted to USD 8557,846 thousand. As large as 86.29% are o*BTA*ined from fishery products (USD 7,384.283 thousand), and the rest of 13.69% are from processed fishery products (USD 1,171.441 thousand) and 0.026% of fish oil (USD 2202 thousand). In more details, based on the type of commodities or products, the largest source of *TD* effect from scenario-5 is o*BTA*ined from frozen shrimp imported commodities (70.73%) and shrimp products (12.10%), followed by frozen tuna commodities (1.96%), processed tuna products (0.08%), and the rest from commodity and other processed fishery products (15.13%).

Furthermore if the *TD* effect of secanario 5 is viewed from the relative changes as a percentage, from Table 4, we can say that all commodities and processed fishery products have positive change namely 17.58%; and for the overall fisheries commodities by 23.13% and for overall processing fisheries products for 12.10%. Meanwhile, according to commodities type or products, the largest positive changes are experienced by shrimp trade (78.87%, form fisheries commodity groups); and trade of processed shrimp products, in the amount of 60.92% (from processed fishery products). However seaweed and pearls indicated no *TD* changes, while there relatively small *TD* change on fish oil as much as 0.03%.

Therefore, according to the simulation results, using scenario 1-3 in which Indonesia and the United States has trade bilateral economic agreements, especially for fisheries sector refers to WTO direction “in stage" by import tariff cutting 20 - 60% or by imposing fisheries import tariff from 14.0 to 28.0%, had no effect in trade diversion and trade creation. In other words the overall commodities and processed fishery products resulted in total trade of zero.

While for scenario 4 in which Indonesia as the exporter and the United States as the importer have trade bilateral economic agreements, especially for fisheries sector refers to WTO direction “in stage" by import tariff cutting 80% or by imposing fisheries import tariff 7,0 %, resulted in

positive *TD* change namely USD 257,135 thousand, although only from other fisheries (excluding tuna and shrimp).

While on scenario 5 in which Indonesia and United States have bilateral economic agreements in trade, especially for fisheries sector refers to WTO direction "in full" by import tariff cutting 100% or by imposing fisheries import tariff 0%, there is a positive *TD* effect for overall fisheries (USD 8,557.846 thousand). *TD* Effect that generated from scenario-5 is relatively larger compared to the scenario-4, even more than the scenario-1, scenario-2 and scenario-3.

From the analysis results, Indonesia as a country that will conduct the bilateral economic partnership agreement with the United States may propose application of fisheries import tariffs at least 0% and maximum of 7%, or in other words, we proposed fisheries import tariff cuts to the United States or vice versa with the percentage 80% to 100% from imposed fisheries tariffs by United States (35%).

CONCLUSION

Implementation of Indonesian and United States of American Economic Partnership Agreement (IUSEPA), for all tariff-cutting scenarios (from 20% to 100%) potentially gives positive effect on trade diversion of fisheries product, while there is no effect on trade creation. The positive effect of diverting fisheries products trade derived by the application of tariffs cutting policy mechanism on Indonesian fisheries product to the United States by 80% to 100% (or with import tariffs 7% - 0%). While import tariff cutting from Indonesia to the United States by 20% to 60% (or the application of tariff 14% to 28.0%) did not create these effects.

Cutting of import tariffs by 80% creates effect on the value of trade diversion for other fisheries product (outside shrimp and tuna), amounted USD 257,135 thousand each. Import tariffs cutting for 100% resulted in the overall value trade diversion in amount of $ 8557,846 thousand. In the cutting rates, the largest trade diversion effects came from imported shrimp and shrimp products, followed by frozen tuna and processed tuna products, and the rest are from other commodities and processed fisheries products.

Based on their effects on trade diversion and creation, Indonesian fisheries sector can be considered eligible to be involved in IUSEPA implementation, as long as they follow implementation mechanism of tariff reduction policies or imports tariff cutting ranged from 80% to 100 % from fisheries tariffs that imposed by United States namely 35%, or the government can impose import tariffs from 7% to 0% .

On top of it, from sectoral perpsektif, in the future, Indonesian government as the party who will conduct the bilateral economic partnership agreement with the United States need to propose or negotiate the implementation of import tariffs on Indonesian fisheries product that imposed in the United States to a minimum of 0% and a maximum of 7%. However, in order to negotiate the proposal, Indonesia should consider some important things. First, diligence and prudence in negotiations, especially by considering that the coverage of IUSEPA is in almost all areas, both goods and services, by emphasizing "SS" (Stand Still Commitment) which is based on the existing regulation

Second, the government should consider an effective strategy that accurately reach negotiations targets with the United States. This is because parties in the IUSEPA negotiation is in an imbalance position (the United States as a developed country and Indonesia as a developing country), which means that Indonesia is in a defensive position than the offensive one.

In addition, it is also a necessary anticipatory efforts to create effective preconditions towards IUSEPA through appropriate policies, strategies, and program in order to overcome various obstacles that may arise when IUSEPA is completely implemented.

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