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The Potential Impact of the Vietnam - EFTA FTA on Vietnam Imports of Seafood

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Abstract: This paper assesses the potential impacts of the Vietnam - EFTA Free Trade Agreement (Vietnam - EFTA FTA) on Vietnam's seafood imports from the EFTA by adopting the SMART model based on two scenarios. The simulation results reveal that the Vietnam-EFTA FTA resulted in a significant increase in Vietnam's seafood imports from the EFTA, implying that the EFTA would be still one of the most important seafood sources for Vietnam in the upcoming time. When Vietnam also extends its coverage of tariff elimination to ASEAN+5 including China, Japan, South Korea, India, Australia - New Zealand, having signed an FTA with ASEAN to which Vietnam is a country member and to the European Union (EU), which is Vietnam's partner in the Vietnam - EU FTA (EVFTA), a reduction in Vietnam's seafood imports from the EFTA would occur, but it will be inconsiderable. Besides, in both scenarios, trade creation effects will be higher than trade diversion effects; meaning that the Vietnam - EFTA FTA would raise the welfare of Vietnam. Based on these results, the paper ends by drawing out some implications for the Vietnamese government and domestic seafood enterprises to be better prepared for the upcoming Vietnam - EFTA FTA.

Keywords: Seafood imports, SMART model, Vietnam - EFTA FTA, Vietnam.

1. Introduction

Vietnam is one of the largest seafood producers and exporters in the world, with a high growth rate. Namely, regarding seafood production, according to the Vietnam

Association of Seafood Exporters and Producers (VASEP, 2020), Vietnam experienced a more-than-6 times increase in the total output, from 1.3 million tons in 1995 to 8.4 million tons in 2020, of which capture fishery production accounted for 46% and aquaculture production accounted

for 54%. In terms of seafood exports, the value of exported seafood of Vietnam went up by 10% annually, from USD 758 million in 1997 to USD 8.5 billion in 2020. This growth made Vietnam the world's fourth leading aquaculture producing country (after China, India and Indonesia) and the fourth largest exporter of seafood, after the EU, China, and Norway in 2020 (Statista, 2022).

Despite being among the top seafood exporters in the world, Vietnam has recently imported more and more seafood products for domestic consumption and for processing to serve re-export purposes. Namely, in the period of 2010-2018, Vietnam's seafood imports witnessed a more than 21.10% growth rate per annum, from USD 328,854,000 to USD 1,522,080,000. Moreover, during the outbreak of COVID-19 in 2019-2020, Vietnam's seafood imports continued to enjoy a steady rise at a rate of 3.3% and 4.7% compared to 2018, respectively. Then the import turnover even soared to a new peak at nearly USD 1,800,000 in 2021 (ITC Trade Map, 2022).
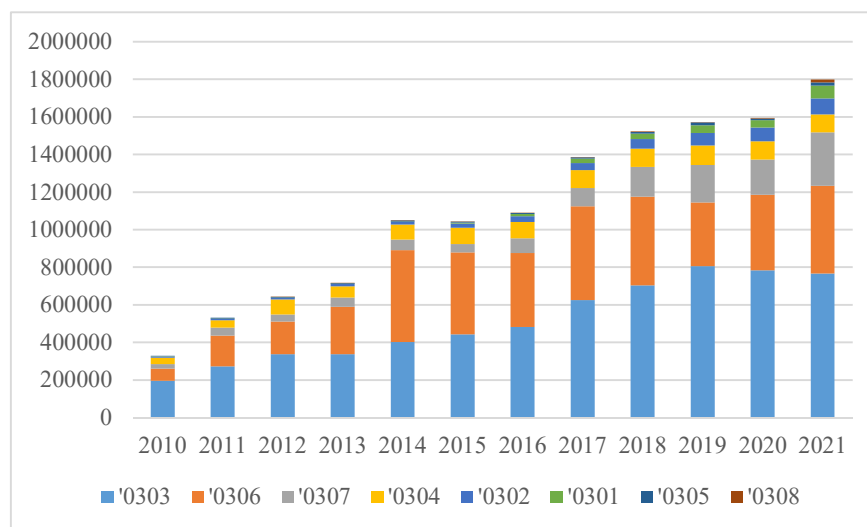

Figure 1: Vietnam's seafood import value according to HS 4-digit (in USD thousand)
Source: ITC Trade Map.

The European Free Trade Association (EFTA), which was set up in 1960, had four country members in 1995 including Iceland, Liechtenstein, Norway, and Switzerland. Vietnam's fish and fishery product imports from the EFTA registered a surge in the period 2002-2020 (ITC Trade Map, 2022). Specifically, in 2020, Vietnam's seafood, originating in the EFTA, reached a new peak at USD 223,642,000, which was more than 354 times higher than the imports in 2002. The proportion of seafood imports from the EFTA also climbed from less than 1% in 2002 to more than 12% in 2020, meaning that the EFTA's role as a seafood supplier for Vietnam became more and more important. Especially, in 2016-2018 and 2020, the EFTA was always ranked as the 2nd biggest seafood import market of Vietnam (after India) and even overtook India to become the most dominant seafood supplier of Vietnam in 2019. At the same time, in the five last years, fish and fishery products also steadily emerged as the No.1 export good of EFTA to Vietnam. As a result, not only the upswing in value and proportion of Vietnam's seafood imports from the EFTA, but also the increasingly important role of fish and fishery products among Vietnam's other imports from the EFTA, showed how dependent Vietnam was on the EFTA market. If the FTA between Vietnam and

the EFTA came into effect and Vietnam eliminated import duties for all types of seafood originating in the EFTA, there would be a dramatical growth in Vietnam's imports from the EFTA, which would considerably affect not only Vietnam's seafood imports from other sources but Vietnam's domestic market as well.
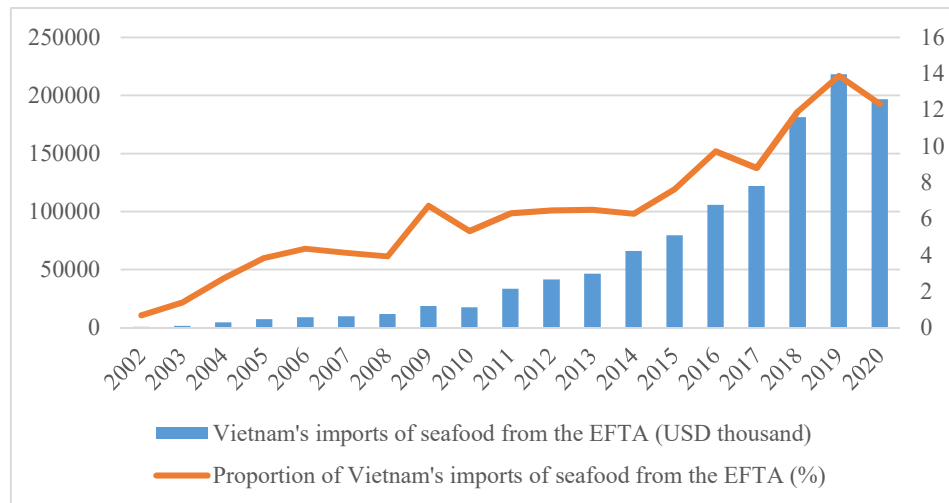

Figure 2: Value and proportion of Vietnam's seafood imports from the EFTA
Source: ITC Trade Map.

Figure 3: Top 20 seafood importers to Vietnam in 2016-2020 (USD thousand)
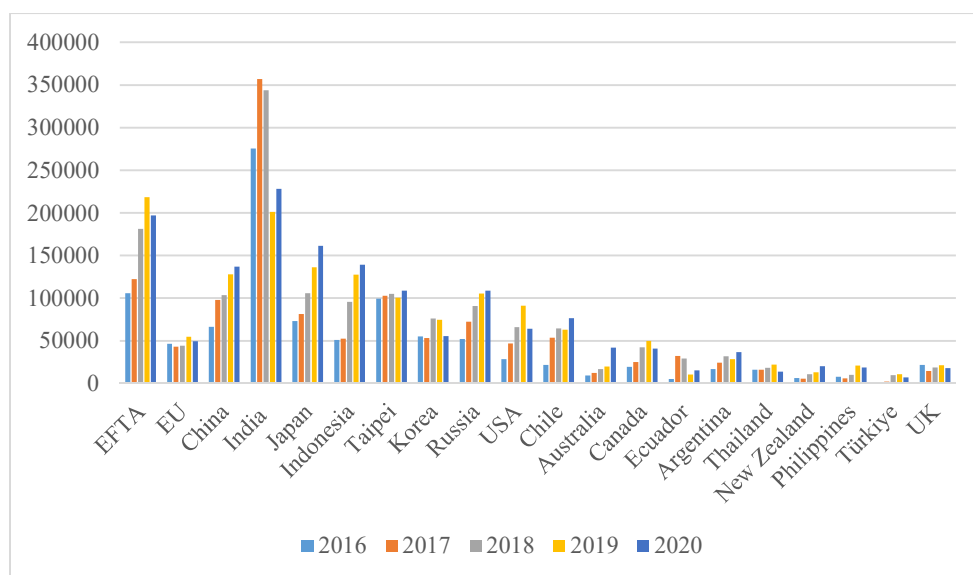*Source:* ITC Trade Map.

However, among the four country members of the EFTA, Vietnam mainly had fish and fishery products imported from Iceland and Norway rather than Liechtenstein and Switzerland. Norway even took the most advantage in the trade relationship with Vietnam when its seafood exports made up more than 98% to 100% from 2016 to 2020 of the total

seafood export output of the EFTA to Vietnam and seafood was superior to any other export products (with the proportion ranging from more than a quarter to nearly a half of the EFTA's total quantity of exports to Vietnam in the same period of time). Moreover, there was a huge difference between the import value of different types of seafood, as Vietnam preferred products under HS0302, HS0303, HS0304, HS0305 and HS0306 to other products like HS0301, HS0307 and HS0308 from the EFTA. Therefore, in case of an effective FTA between Vietnam and the EFTA making Vietnam remove tariffs on the EFTA's imports of seafood, Vietnam's dependence on Norway as a source of supply would be even more noticeable and an inequality in distribution of different types of seafood from the EFTA to Vietnam would further occur.
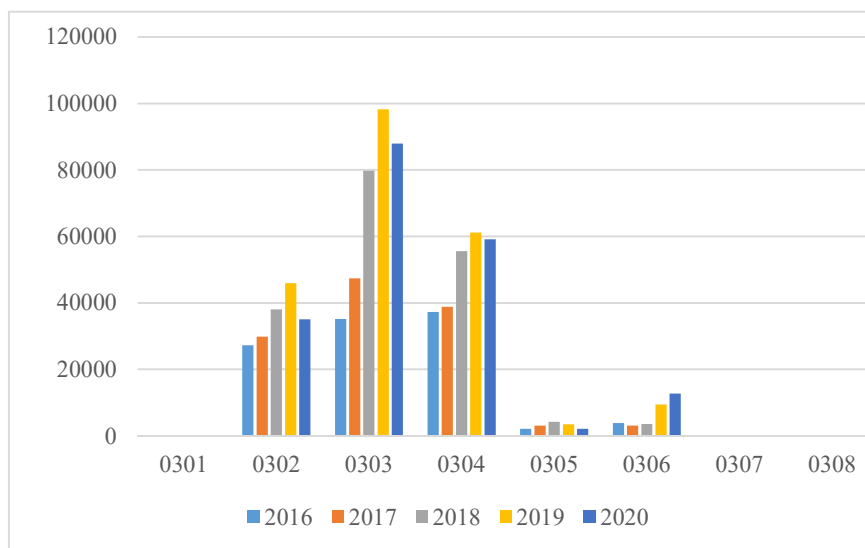

Figure 4: Import value of different types of seafood from the EFTA to Vietnam (USD thousand)
Source: ITC Trade Map.

In fact, although Vietnam already signed several bilateral commitments and agreements with Norway, Iceland and Switzerland as independent countries in the field of trade and investment, the broad-based FTA between Vietnam and the EFTA as a cohesive economic bloc was just began to be negotiated in 2012. The Vietnam - EFTA FTA, which has been negotiated in sixteen rounds so far, would be a "new generation" bilateral agreement with Vietnam.

On these grounds, this article, by adopting the SMART model and Partial Equilibrium theory, aims at assessing the potential impact of the Vietnam - EFTA FTA, which is under negotiation, on Vietnam's seafood imports from the EFTA and other sources and provides some recommendations to Vietnam to better prepare for the upcoming ambitious Vietnam - EFTA FTA.

2. Literature review

It is not an exaggeration to say that policy-making in connection with FTAs should start and end with an impact assessment. At the initial stages of creating an FTA, an assessment of the potential costs and benefits of the prospective FTA is a prerequisite for shaping the FTA's objectives, informing consultations with public and private stakeholders and formulating effective negotiating strategies. In contrast, after the FTA is implemented, an assessment of the FTA's actual versus projected impact is necessary for determining whether the FTA's

objectives have been met and what adjustments are needed. Correspondingly, two methods used to assess the impact of an FTA are ex-ante evaluation and ex-post evaluation, which are usually complementary to each other.

Ex-post evaluation of an FTA's impact often applies a gravity model and panel data to quantify the effect of tariff and non-tariff abolishment on a nations' trade flow within a certain period. Various studies using the gravity model often apply various control variables (except for fixed independent variables such as GDP and geographical distance) as well as different methods of processing data such as Ordinary Least Squares (OLS), Tobit method and Poisson Maximum Tobit method likelihood (PPML method). The main strengths of the gravity model in evaluating an FTA are that it allows analysts to control for other trade-related variables and quantify any changes in a country's trade due to the FTA. However, the usage of ex-post analysis is limited by the availability of data as the gravity model demands data of the trade flow under the FTA over time, which is generally unavailable with a new FTA. This problem gives rise to a range of ex-ante researches, which are based on simulation rather than estimation to evaluate the potential impact of the new FTA.

The ex-ante evaluation is mainly based on the General equilibrium theory and Partial equilibrium theory with the GTAP and SMART models, respectively. The GTAP model uses GE theory helping it to account for economic changes in all sectors. However, on the other hand, the GTAP model faces the same limitations, as follows: (i) it is constrained by the availability of data and a lack of data may severely compromise the scope and relevance of a study and the researcher's ability to model certain trade policies; (ii) it involves many parameters, which may be difficult to estimate and validate and (iii) it contains assumptions or characteristics that may not reflect real-world features.

Contrary to the GTAP model, the SMART model, based on Partial equilibrium theory, only requires data for the trade flows, the trade policy (tariff) and a couple of behavioral parameters (elasticities) which are always available. In general, by virtue of its simplicity, the SMART model tends to be more transparent, easy to implement and results can be easily explained as well. Researches making use of the SMART model in Vietnam have not been prevalent and have mainly focused on "new generation" FTAs of Vietnam. Minh et al. (2021) using the Partial equilibrium and SMART tool focused on assessment of the ex-ante impact of the EVFTA on the import of meat in Vietnam. The results revealed that the meat imports from the EU to Vietnam experienced a dramatic growth. Huong (2015, 2016) also made use of the SMART model to measure the potential effects of the EVFTA on the import of medicines and automobiles from the EU to Vietnam. The two studies of Huong (2015, 2016) concluded that the EVFTA would result in a 3% rise in Vietnam's pharmaceutical imports and a 63.67% surge in automobile imports from the EU. Anh and Ngoc (2011) assessed the prospective impacts of the RCFP agreement on the import of automobiles in Vietnam, which continued to be addressed by Tu et al. (2017). On Vietnam's export side, Bao (2016) analyzed the opportunities and challenges of the EVFTA for Vietnam's wood processing industry. According to the simulation, in the case of tariff lines applied to HS44 and HS99 products reducing to 0%, the growth of trade value of the two products would be about USD 307,371. Hoang and Tan (2020) studied the potential impacts of EVFTA on Vietnam's exports of seafood to the EU market with the use of the SMART model. According to the research, EVFTA would contribute to the growth of Vietnam's seafood exports when seafood originating in Vietnam had comparative advantages compared to those in the inland EU and other EU's export partners, thanks to duty-free access.

Regarding the Vietnam - EFTA FTA, there is not any paper assessing its potential contributions to Vietnam's economic development, mainly because it is still being

negotiated. As a result, this article determines to assess the potential impacts of tariff elimination under the Vietnam - EFTA FTA on Vietnam's seafood imports from the EFTA, and provides some recommendation to Vietnam to make the most of the benefits of the Vietnam - EFTA FTA when many other Vietnam's FTAs have been implemented as well to overcome negative effects of this agreement in particular and all Vietnam's FTAs in general on Vietnam's domestic seafood market.

3. Methodology and data

3.1. Partial equilibrium (PE) approach

PE is a model that equates supply and demand in one or more markets in order to analyze and assess a particular market under the changes of the policy (increase or decrease of the tariff) or other determinants affecting the demand or supply in a good. The PE model often eliminates the impacts of changes in relevant or replaceable sectors and suggests that the sector analyzed is a small niche in the economy, so the changes of the sector could not affect other sectors.

An importing country J imports a commodity i of an exporting nation K. The demand curve would be as below:

$$M = \alpha_M PM^\varepsilon$$

α_M is a constant ($\alpha_M > 0$) and $\varepsilon < 0$ is elasticity of demand for imports. Similarly, the supply curve would be as below:

$$X = \alpha_X PX^\eta$$

$\alpha_M > 0$ is a constant and $\eta > 0$ is elasticity of supply for exports. When the exporting nation has a small economy or the import turnover of i is smaller than the total international import turnover, η is the same as positive infinity.

The equal condition of the model requests: $M = X$.

Difference between import and export prices caused by a tariff as a curve, below:

$$PM = PX (1 + T/100)$$

T is tariff on import (%).

The changes in the gains from exchange to the importing and exporting countries are:

$$\Delta WM = \int_{PM_0}^{PM_1} \alpha_M PM^\varepsilon dPM = \frac{\alpha_M}{\varepsilon+1} (PM_0^{\varepsilon+1} - PM_1^{\varepsilon+1})$$

$$\Delta WX = \int_{PX_0}^{PX_1} \alpha_X PX^\eta dPX = \frac{\alpha_X}{\eta+1} (PM_0^{\eta+1} - PM_1^{\eta+1})$$

These expressions complete a basic partial equilibrium model that we can use to simulate the economic impact of tariff changes in a single sector.

3.2. SMART model

On basis of the theory of Partial equilibrium, the SMART tool can calculate changes of trade turnover of a sector in the circumstance of tariff changes in an FTA. The SMART model is used on some assumptions of export supply curve and import demand curve as follows:

- The export supply curve is completely elastic and the elasticity of supply for exports is the same as positive infinity.

- The demand of a customer is divided into two steps: the first step, the consumer decides on the total demand under the Consumer Price Index (CPI) and the second step, the purchaser decides the demand of many types of goods under the total demands.

- The consumer has different interests in products imported from different countries. Thus, different countries could get involved in exporting such products even when an exporting country has special preferential tariffs (Armington assumption).

3.3. Data

The SMART model calculates on 3 types of elasticity; such as demand elasticity, supply elasticity and Armington elasticity. Import elasticity is 1.5 in SMART. The export elasticity is defined as the changes of the export supply when the price changes. As the seafood imports of Vietnam are slight and the seafood market of Vietnam is also subtle compared to other exporters, the assumption of perfectly elastic demand (99) is used in SMART.

The selection of the Armington elasticity plays a very important role in deciding the exactness of the measure in the SMART model. This study would use the Armington elasticity of Hertel et al. (2007), which would be 2.5 for fishing.

This paper adopts the HS (Harmonized System) classification and assesses the potential impact of the Vietnam - EFTA FTA on Vietnam's imports of fish and fishery products, namely HS03. Data of bilateral trade turnover between Vietnam and partners was in 2021 and extracted from data of UNCTADTRAINS by the SMART model.

3.4. Scenarios

Two scenarios are constructed based on the assumption that Vietnam would eliminate the tariff on seafood imports from the EFTA, which would be Vietnam's commitment in the Vietnam - EFTA FTA. Moreover, the biggest fish and fishery product exporters to Vietnam, in addition to Norway and Iceland, are India, Japan, China, Korea, Australia and New Zealand, which are partners of Vietnam (as a country member of ASEAN) in the ASEAN FTA+1 and the EU country members such as Denmark, France, Poland, which are partners of Vietnam in the EVFTA as well. This leads to the fact that the ASEAN FTA+1 and EVFTA would influence the seafood imports of Vietnam from the EFTA and the implementation of the Vietnam - EFTA FTA in the fishing industry in the future. Thus, to get an overview of the potential impact of the Vietnam - EFTA FTA on seafood imports of Vietnam, the ASEAN FTA+1 and EVFTA need to be considered.

- Scenario 1: Vietnam eliminates the tariff on seafood imported from the EFTA without taking into consideration Vietnam's other FTAs.

- Scenario 2: This scenario includes FTAs of ASEAN+5 and EVFTA in simulation, in which Vietnam eliminates tariffs for fish and fishery products imported from both the EFTA, China, Japan, South Korea, India, Australia - New Zealand and the EU country members.

With ASEAN+5, Vietnam signed many FTAs as a member state of ASEAN, including ASEAN - China FTA (ACFTA), ASEAN - Japan Comprehensive Economic Partnership (AJCEP), ASEAN - Korea FTA (AKFTA), ASEAN - India FTA (AIFTA) and ASEAN - Australia - New Zealand FTA (AANZFTA). In these FTAs, Vietnam commits to eliminate seafood import tariffs, however, some types of seafood which are imported from India are still subject to a certain level of tariff rates according to AIFTA. In Scenario 2, they are assumed to be entitled to enjoy tariff elimination.

Regarding the EVFTA, Vietnam has made commitments that customs duties on fish and fishery products originating in the EU shall be removed within 4 years from the date of entry into the enforcement of the EVFTA, which is October 1st, 2020. Therefore, Scenario 2 aims at evaluating how the ASEAN+5 and EVFTA would keep up with the assumed liberalization in the Vietnam - EFTA FTA.

4. Results

On the basis of the SMART model and the assumed scenarios, results on Vietnam's imports of fish and fishery products from the EFTA are given as follows:

Under the enactment of the Vietnam EFTA FTA, there would be a surge of USD 202,239,300 in seafood imports of Vietnam from the EFTA, corresponding to a more than 112% increase in total. Overall, Vietnam's import value of fish and fishery products from the EFTA would reach approximately USD 387.8 million. As Vietnam is the importer, the total trade effect is the sum of the trade creation and trade diversion effect, which would be nearly USD 178.61 million and USD 23.64 million, respectively. The sharp increase in Vietnam's imports of fish and fishery products from the EFTA in Scenario 1 could be explained by the two following reasons: firstly, seafood originating in the EFTA would be cheaper in the case of the effective Vietnam - EFTA FTA than before, because fish and fishery products (HS03)

coming from Iceland and Norway, for example, which are open to 12.33% and 13.96% tariffs on average now, would enjoy tariff elimination (0%) thanks to the Vietnam's assumed commitments. Secondly, Vietnam would be more interested in the EFTA's seafood, which would be cheaper compared to that from the rest of the world, thanks to the reduction to zero of Vietnam's tariff. For instance, fish and fishery products originating in India, which is the biggest supplier to Vietnam, are dealing with a duty rate of 8.66%, so they would not be as competitive with the EFTA's seafood, which would be duty-free thanks to the Vietnam - EFTA FTA and Vietnam's assumed commitments. As mentioned above, the trade diversion effect of the Vietnam - EFTA FTA in Scenario 1, would be USD 23,634,550, meaning that Vietnam would shift seafood imports from the rest of the world, including the EU and ASEAN+5, to the EFTA.

Table 1: Change in trade indicators of seafood imports of Vietnam from the EFTA in two scenarios

Indicators	Scenario 1	Scenario 2
Initial seafood import value (in 1,000 USD)	179,535.76	179,535.76
Final seafood import value (in 1,000 USD)	381,775.06	380,449.71
Total import value change (in 1,000 USD)	202,239.3	200,913.96
Total import value change (%)	112.65	111.91
Trade creation effect (in 1,000 USD)	178,604.76	178,604.76
Trade diversion effect (in 1,000 USD)	23,634.55	22,309.2
Total trade effect (in 1,000 USD)	202,239.30	200,913.96

Source: The author's calculation in SMART model.

In comparison with Scenario 1, there would be a decline of USD 1,325,350 in the import value of Vietnam from the EFTA in Scenario 2, which directly corresponds to the decrease in the trade diversion effect. In Scenario 2, the imports would grow at a lower rate of 111.91% because when Vietnam also removes tariffs for ASEAN+5 and the EU, the seafood prices of ASEAN+5 and the EU relative to that of the EFTA would be lower, making Vietnam transfer a part of its imports from the EFTA to ASEAN+5 and the EU. Overall, there would be some reductions in the investigated indexes in Scenario 2 compared to Scenario 1. However, these reductions would be insignificant, and would be only nearly 0.7%, meaning that Vietnam's participants in the FTA with ASEAN+5 and the EU would not much affect Vietnam's seafood import growth from the EFTA. The fact is the EFTA has already been one of the most essential seafood import markets of Vietnam for many years (the 2nd place), thus, the duty-free access to Vietnam's market given to the EFTA's fish and fishery products thanks to the Vietnam - EFTA FTA would help them to even strengthen their position. It is clear that the trade creation effect of the Vietnam - EFTA FTA, which would be USD 178,604,760, would be 8 times higher than the trade diversion effect and account for nearly 89% of the total trade effect in Scenario 2. This would demonstrate the EFTA's advantage in comparison with other rivals in the Vietnamese market, even when Vietnam's other seafood exporters are taken into consideration. Moreover, all ASEAN+4 partners, being China, Japan, Korea, Australia and New Zealand, and their fish and fishery products enjoy a 0% duty rate by Vietnam, not only in Scenario 2, but already in Scenario 1 as well. And only India and the EU are open to tariff removal in Scenario 2, which is different compared to Scenario 1. As a result, the trade diversion effect in Scenario 2 would reduce insignificantly in comparison with Scenario 1, meaning that Vietnam's integration with other partners would not decrease the role of EFTA as

an important seafood source of Vietnam. Among the four countries of the EFTA, Norway would be always the dominant partner of Vietnam with its seafood imports to Vietnam accounting for more than 99.2% of total seafood turnover from the EFTA.

Table 2: Change in import value of Vietnam from specified trading partners

Country	Scenario 1			Scenario 2		
	Initial import value (in 1,000 USD)	Total import change (in 1,000 USD)	Total import change (%)	Initial import value (in 1,000 USD)	Total import change (in 1,000 USD)	Total import change (%)
EFTA	179,535.76	202,239.3	112.65	179,535.76	200,913.96	111.91
Iceland	1,783.22	1,148.31		1,783.22	1,119.71	
Norway	177,752.54	201,090.99		177,752.54	199,794.25	
EU	29,567.19	-2,496.13	-8.44	29,567.19	10,164.23	34.38
Austria	36.27	-0.43		36.27	7.21	
Denmark	12,130.46	-1,007.9		12,130.46	845.4	
Estonia	25.7	-0.55		25.7	4.74	
France	4,772.26	-538.19		4,772.26	3,396.9	
Germany	617.72	-28.61		617.72	561.9	
Ireland	3,161.87	-20.23		3,161.87	508.1	
Lithuania	338.2	-37.74		338.2	-2.66	
Netherlands	1,122.22	-12.73		1,122.22	437.39	
Poland	3,783.32	-517.65		3,783.32	41.55	
Portugal	2,871.95	-324.14		2,871.95	3,802.04	
Spain	507.94	-3.72		507.94	524.92	
Sweden	199.28	-4.24		199.28	36.74	
ASEAN+5	571,411.35	-13,181.3	-2.31	571,411.35	55,999.13	9.8
China	110,666.37	-1,395.92		110,666.37	-1,774.53	
India	195,917.38	-166.35		195,917.38	72,853.54	
Japan	154,726.42	-7,506.87		154,726.42	-8,644.68	
Korea	50,036.4	-334.64		50,036.4	-602.14	
Australia	41,017.98	-3,188.43		41,017.98	-5,116.85	
New Zealand	19,046.8	-589.09		19,046.8	-716.21	

Source: The author's calculation in SMART model.

Table 2 shows the countries of EFTA would be the only ones getting huge benefits in both Scenario 1 and Scenario 2 which would be a more than 112% and 111% soar in seafood exports, respectively. Meanwhile, ASEAN+5 and the EU would face a fall in seafood export value which would be -2.31% and -8.44%, respectively (Scenario 1). When Vietnam's FTAs, with both the EFTA, ASEAN+5 and the EU are taken into account (Scenario 2), regarding ASEAN+5, four of five partners, including China, Japan, South Korea and Australia - New Zealand would still experience a drop in exports to Vietnam and only India's

fish and fishery exports would ascend by more than 37%. With regard to the EU, almost all of its country members would see their seafood export turnover to Vietnam increase, except for Lithuania.

Actually, the seafood exports of China, Japan, South Korea and Australia - New Zealand are already entitled to enjoy tariff elimination thanks to the FTAs with Vietnam, meaning that they are open to import duty of 0% in both scenarios (SMART model). India, by contrast, is suffering from an 8.86% tariff for seafood products under HS03 on average (SMART model). Similarly, seafood exports of the EU's

country members are currently still subject to Vietnam's customs duty ranging from 3.06% to 7.5% on average (SMART model). That is the reason why when Vietnam's import tariff reduces to zero for fish and fishery products originating in all partners in Scenario 2, Vietnam would shift seafood imports from the EFTA to India and the EU. Overall, in both scenarios, the EFTA would far exceed ASEAN+5 and the EU in terms of absolute change and relative change in export value of fish and fish products to Vietnam.

Table 3: The impact of the Vietnam - EFTA FTA on import value of seafood under 6-digit HS codes from the EFTA to Vietnam

Product (HS code)	Initial import value (in 1,000 USD)	Scenario 1		Scenario 2	
		Import value change (in 1,000 USD)	Proportion in total change (%)	Import value change (in 1,000 USD)	Proportion in total change (%)
030211	2,481.51	8,890.44	4.4	8,890.44	4.4
030214	31,357.846	4,515.08	2.23	4,515.08	2.25
030219	783.12	157.7	0.08	157.7	0.08
030253	388.81	2.82	0.00	2.82	0.00
030312	85.43	24.97	0.01	24.97	0.01
030313	2,514.28	672.67	0.33	630.63	0.31
030314	13,726.66	3,748.39	1.85	3,748.39	1.87
030319	12.81	5.45	0.00	5.21	0.00
030329	4,134.31	1,479.95	0.73	1,479.95	0.74
030331	185.011	61.03	0.03	61.03	0.03
030354	53,160.57	152,610.12	75.46	152,249.94	75.78
030363	1,839.26	7,164.94	3.54	7,164.94	3.57
030364	1,274.59	352.19	0.17	352.19	0.18
030365	249.48	55.35	0.03	55.35	0.03
030369	982.43	257.63	0.13	242.05	0.12
030389	2,929.5	1,168.26	0.58	1,143.01	0.57
030441	1,219.0	1,272.8	0.63	1,215.99	0.61
030442	229.55	263.64	0.13	263.64	0.13
030452	0.65	0.55	0.00	0.55	0.00
030471	228.16	130.09	0.06	130.14	0.06
030481	46,404.55	13,258.09	6.56	12,965.9	6.45
030482	2,004.36	472.6	0.23	468.8	0.23
030499	9,048.58	1,697.32	0.84	1,345.96	0.67
030510	15.3	10.75	0.00	10.75	0.00
030541	14.11	6.14	0.00	6.99	0.00
030562	43.14	453.54	0.22	441.1	0.22
030572	168.61	219.67	0.11	213.13	0.11
030579	1,833.2	3,185.55	1.58	3,026.67	1.51
030614	2,220.95	101.59	0.05	100.64	0.05

Source: The author's calculation in SMART model.

Table 4: Trade creation and trade diversion effect of the Vietnam - EFTA FTA

Country	Scenario 1				Scenario 2			
	Trade creation (in 1,000 USD)	Proportion of trade creation (%) in total trade effect	Trade diversion (in 1,000 USD)	Proportion of trade diversion (%) in total trade effect	Trade creation (in 1,000 USD)	Proportion of trade creation (%) in total trade effect	Trade diversion (in 1,000 USD)	Proportion of trade diversion (%) in total trade effect
EFTA	178,604.8	88.31	23,634.55	11.69	178,604.76	88.9	22,309.19	11.1
Iceland	771.71		376.6		771.71		347.99	
Norway	177,833.1		23,257.95		177,833.05		21,961.2	
EU	0	0	-2,496.14	100	10,760.4		-596.17	
Austria	0		-0.43		1.65		5.56	
Denmark	0		-1,007.9		1,318.3		-472.9	
Estonia	0		-0.55		1.1		3.65	
France	0		-538.19		3,563.02		-166.13	
Germany	0		-28.61		504.14		57.75	
Ireland	0		-20.23		323.38		184.72	
Lithuania	0		-37.74		7.77		-10.42	
Netherland	0		-12.73		365.72		71.67	
Poland	0		-517.65		347.32		-305.77	
Portugal	0		-324.14		3,875.88		-73.84	
Spain	0		-3.73		443.63		81.29	
Sweden	0		-4.24		8.49		28.25	
ASEAN+5	0	0	-13,181.3	100	60,402.18		-4,403.05	
China	0		-1,395.92		0		-1,774.53	
India	0		-166.35		60,402.18		12,451.36	
Japan	0		-7,506.87		0		-8,644.68	
Korea	0		-334.64		0		-602.14	
Australia	0		-3,188.43		0		-5,116.85	
New Zealand	0		-589.09		0		-716.21	

Source: The author's calculation in SMART model.

The above results show that Vietnam's imports of different types of seafood would positively be influenced by the Vietnam - EFTA FTA in both scenarios as they would experience a considerable increase in value. This is because Vietnam's seafood imports from the EFTA suffer from quite high rates of tariff. Namely, seafood under HS030614 faces the lowest tariff, which is 1.5%, but the remaining types are open to a higher one ranging from 10 to 20%. Then reduction of tariffs to 0% would result in a climb in the import turnover. Besides, Vietnam should pay much more attention to the changes in imports of products under HS030354 as they would enjoy the highest rise in absolute import value (more than USD 152 million). They would also make up for more than 75% in the total change of Vietnam's imports from the EFTA. Moreover, when Vietnam's FTAs with ASEAN+5 and the EU are taken into consideration, Vietnam's imports of seafood under HS030354 from the EFTA would not change much, making the EFTA still the largest exporter to Vietnam. The second biggest product in terms of absolute import value increase would be HS030481, accounting for 6.56% of total additional seafood imports into Vietnam from the EFTA in Scenario 1 and 6.45% in Scenario 2. With regard to relative change, HS030562 would see a sharp rise by over ten times

compared to the import turnover before Vietnam's tariff elimination according to the Vietnam- EFTA FTA, followed by HS030364 (nearly four times), HS030211 (more than three times) and HS030354 (nearly three times). Overall, HS030354 would benefit the most in terms of both absolute and relative change in import turnover in both scenarios.

5. Conclusions and recommendations

By adopting the SMART model, this paper analyzes the potential impact of tariff elimination under the Vietnam - EFTA FTA on Vietnam's imports of seafood from the EFTA in two scenarios which are constructed based on the assumption that Vietnam would eliminate tariffs on seafood imports from the EFTA which would be Vietnam's commitment in the Vietnam - EFTA FTA and the integration of Vietnam with ASEAN+5 and the EU in the seafood sector. In Scenario 1, Vietnam eliminates tariffs only for fish and fishery products imported from the EFTA, while Scenario 2 enlarges the scope of tariff reduction to also include ASEAN+5 and the EU. The results reveal that Vietnam's seafood imports from the EFTA would significantly increase in both scenarios, implying that the EFTA would still be among the important seafood sources for Vietnam's market in the future. However, Vietnam's FTAs with ASEAN+5 and the EU would result in a reduction in Vietnam's import turnover of fish and fishery products from the EFTA. In Scenario 1, Vietnam's import value of seafood from the EFTA would shoot up by more than 112%, equivalent to USD 202,239.3. Meanwhile Scenario 2 would experience a fall to 111.91% and USD 200,913.96, respectively.

Moreover, a distribution disparity in Vietnam's seafood imports from the EFTA would occur when the Vietnam - EFTA FTA comes into effect. Most of the absolute import value increases would focus on HS030354 and HS030481. Meanwhile, the most remarkable relative change would be registered in HS030562, HS030364, HS030211 and

HS030354. Overall, HS030354 would benefit the most in terms of both absolute and relative change in import turnover in both scenarios.

Besides, the Vietnam - EFTA FTA would result in a considerable trade creation effect, which would be higher than the trade diversion effect in the two scenarios. Namely, trade creation effect would account for 88.31% of the total trade effect in Scenario 1. This figure would go up to 88.9% in Scenario 2, meaning that the Vietnam - EFTA FTA would bring about an increasing benefit for Vietnam and Vietnam's integration with both the EFTA, ASEAN+5 and the EU and would even lead to a higher social benefit.

In addition to some foregoing main points drawn from the SMART model, the paper would like to introduce some recommendations as follows:

Firstly, Vietnam should speed up the negotiation process with the EFTA regarding the Vietnam - EFTA FTA, because according to the foregoing assessment, the Vietnam - EFTA FTA effect would bring benefits not only to the EFTA as a seafood exporter to further penetrate Vietnam's market but also to Vietnam as a seafood importer to have access to an increasingly huge source of supply. Moreover, the Vietnam - EFTA FTA would seem to combine with existing FTAs of Vietnam, resulting in higher social welfare of Vietnam.

Secondly, when it comes to the combination of Vietnam - EFTA FTA and Vietnam's FTAs with ASEAN+5 and the EU, the EU and India would cause Vietnam's seafood imports from the EFTA to reduce. Vietnam would shift imports of fish and fishery products from the EFTA and ASEAN+4 to EU and India. Therefore, with a view to promoting the upcoming Vietnam - EFTA FTA and trade relation with the EFTA, Vietnam should keep its commitments in the existing FTA with India in the seafood sector (which are still imposing tariffs on some types of seafood originating in India).

Thirdly, in the case where the Vietnam - EFTA FTA came into effect, Vietnam's domestic seafood enterprises would face more

fierce competition not only from ASEAN+5 and EU but also the EFTA's enterprises. Therefore, Vietnam's businesses should increase their quantity and quality of seafood to serve the domestic market better. The Vietnamese Government should support domestic enterprises to invest in technology innovation, distribution system building, brand building and development to catch up with the EFTA's enterprises.

Fourthly, with a population of nearly 100 million people, Vietnam's domestic market indeed has huge potential to promote the consumption of aquatic products, but has not been fully and effectively exploited by Vietnam's domestic enterprises. This is because seafood export has some advantages over domestic consumption, namely: (i) selling products to domestic supermarkets and enterprises do not get paid immediately but in about a month. Meanwhile, the payment transactions in seafood export can be completed very quickly and conveniently; (ii) the preservation of aquatic products which are mostly frozen in domestic supermarkets matters as it can negatively affect quality of products and reputation of enterprises and (iii) because of domestic supermarkets' sales and promotions, seafood enterprises find it difficult to determine their selling price which can greatly affect their revenue. Meanwhile, seafood export activities are transparent on the basis of quality assurance, food safety and hygiene and disease safety. Due to the above-mentioned reasons, seafood enterprises often take advantage of all their resources to promote export activities and penetrate foreign markets rather than focus on the domestic one. However, it is clear that if enterprises are capable of well exploiting the domestic market, their pressure on export activity will reduce, especially in case of the great volatility in the world market due to the COVID-19 epidemic.

With a view to encouraging seafood enterprises' participation in development of the domestic market, the Vietnamese Government should promulgate appropriate policies to solve the aforesaid barriers including counterfeit or poor-quality products, payment transaction time, aquatic product preservation or sales and promotions of supermarkets. Regarding seafood manufacturers, in addition to building their core competitiveness on the basis of investment in technological innovation to produce quality and highly differentiated products and meet domestic customers' needs, as mentioned above, they should invest in market building and expanding and developing a strong distribution network as well. The paper, however, still has some limitations, especially limitations of the research method. The SMART tool is an effective tool for assessing the impact of FTAs on the turnover of a commodity, but there are no foundations of theory of the SMART tool. Besides, the Partial equilibrium theory could not assess the impacts of the relevant classification of seafood. Thus, the author would expand the research in the future and use some tools including CGE in order to give a more detailed opinion of the Vietnam -EFTA FTA's impacts on Vietnam.

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