IMPACT OF RCEP ON TRADE BALANCE AND INDONESIA'S POTENTIAL EXPORT

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ABSTRAK

Penandatanganan kemitraan ekonomi komprehensif regional telah menarik perhatian global untuk kesepakatan perdagangan mega baru. Hal ini diharapkan dapat membuka potensi dan akses pasar yang lebih luas, namun kesepakatan perdagangan sebelumnya antara ASEAN dan kelima mitranya memunculkan pertanyaan apakah kemitraan ekonomi komprehensif regional dapat berperan dalam meningkatkan perdagangan antar mitra. Penelitian ini menggunakan analisis ekuilibrium parsial dengan menggunakan SMART Simulator dan bertujuan untuk menganalisis dampak kemitraan ekonomi komprehensif regional terhadap anggota, dan mengidentifikasi potensi ekspor Indonesia. Data yang digunakan adalah nilai perdagangan antara penandatangan kemitraan ekonomi komprehensif regional pada tahun 2019 dan dilakukan dua skenario. Pertama, liberalisasi tarif seratus persen dilakukan dan simulasi kedua dilakukan dengan mempertimbangkan daftar sensitif dan kuota tarif dalam jadwal komitmen tarif tiap-tiap anggota. Kajian ini mengidentifikasi potensi komoditas ekspor Indonesia menggunakan analisis spasial dan analisis deskriptif guna memetakan potensi tiap-tiap provinsi, meningkatkan kegiatan ekspor dan meningkatkan tingkat pemanfaatan fasilitas perdagangan. Hasil penelitian ini menyimpulkan bahwa perolehan ASEAN relatif lebih rendah kemitraan ekonomi komprehensif regional sedikit dapat meningkatkan nilai ekspor, impor dan neraca perdagangan bagi Indonesia namun rendahnya pemanfaatan fasilitas perdagangan perlu mendapat perhatian pemerintah untuk mendorong pelaku usaha meningkatkan produktivitas dan menjangkau pasar yang lebih luas.

Kata kunci*: perdagangan internasional, potensi ekspor, RCEP*

ABSTRACT

The signing of RCEP has captured global attention for the new mega trade deals. Expected to open wider market potential and access, yet the previous trade agreements between ASEAN and its five partners raise whether RCEP can increase trade between partners. This study employed partial equilibrium using SMART Simulator to analyze the impact of RCEP on members, and identifying potential export for Indonesia. The data used is trade value between RCEP signers in 2019 and conducted two scenarios. First, one hundred percent tariff liberalization was conducted and the second simulation was conducted with consideration of sensitive list and tariff rate quotas in schedule of tariff commitments of each member. This study aims to identify potential Indonesian export commodities using spatial analysis and descriptive analysis in order to map each province's potential, enhance export activities and increase the utilization rate of trade facilities. The results of this study concluded that ASEAN relatively gained lower compared to ASEAN partner countries. Australia would be the top gainer. RCEP slightly might increase the value of exports, imports and trade balance for Indonesia but the low utilization of trade facilities needs the government's attention to encourage business actors to increase productivity and reach a wider market.

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dibandingkan dengan negara-negara mitra ASEAN. Australia akan menjadi pemenang teratas.

Keywords: export potential, international trade, RCEP.

1. INTRODUCTION

The trade liberalization currently paying worldwide attention is the Regional Comprehensive Economic Partnership (RCEP). The fifteen countries signed RCEP in November 2020 are ten ASEAN member countries and five ASEAN trading partners, namely China, New Zealand, South Korea, Australia and Japan. Prior to the signing of the RCEP, ASEAN has previous Free Trade Agreement with each partner (ASEAN+1 FTA). In Table 1, the scope of tariff reduction in each ASEAN trade agreement with five partner countries is detailed.

Table 1. Tarif Reduction Coverage in ASEAN+1 FTAs (percentage)

	AANZFTA	ACFTA	AJCEP	AKFTA		AANZFTA	ACFTA	AJCEP	AKFTA
BRN	99.20.00	98.30.00	97.70	99.20.00	**THA**	98.90	93.50.00	96.80	95.60
CAM	89.10.00	89.90	85.70	97.10.00	**VTN**	94.80	n.a	94.40.00	89.40.00
IDN	93.70	92.30.00	91.20.00	91.20.00	**AUS**	100.00.00			
LAO	91.90	97.60	86.90	90.00.00	**CHN**		94.10.00		
MLS	97.40.00	93.40.00	94.10.00	95.50.00	**JPN**			91.90	
MYA	88.10.00	94.50.00	85.20.00	92.20.00	**KOR**				90.50.00
PHI	95.10.00	93.00.00	97.40.00	99.00.00	**NZ**	100.00.00			
SGP	100.00.00	100.00.00	100.00.00	100.00.00					

Source: Economic Research Institute for ASEAN and East ASIA

ASEAN+1 FTAs provide various tariff reduction coverage depending on which partner ASEAN affiliated with. Five ASEAN member countries committed to lessening tariffs more than 95% and the others 90 to 95%. Five ASEAN partner countries had lowered more than 90% tariff for ASEAN. However, if we adopt the 95% threshold in the probability of RCEP scheme, even China, Japan and Korea need to make further efforts. Even though the potential for economic benefits will be enormous, it will be more difficult for FTA partners to open their goods market to other FTA partners with a 95% threshold (Fukunaga & Isono, 2013). In aggregate, trade relation of ASEAN+5 exceed 50% both in exports and imports of total trade with the world.

RCEP can be nominated as one of largest trade deals in the world that provides wider market access for member countries, increases trade balances, and restores their economies with additional output and jobs created through the implementation of this trade agreement.

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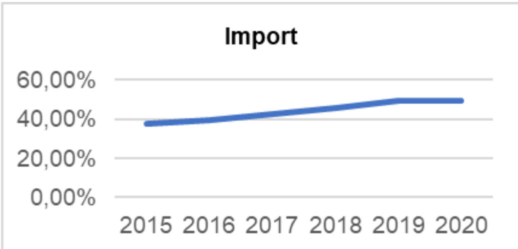
On the other hand, trade agreements would have a negative impact on the country. Escalating in level of consumption that is not compensated with domestic production will have a negative impact on GDP and employment in the country. Empirical assessment of the impact of a trade agreement is necessary to anticipate the possible consequences because it has domino effect, especially on the economic of a country.

Preferential trade agreements as a form of international cooperation made by policy makers are *de jure* economic integration (Wyatt-Walter, 1995) nevertheless there is no guarantee of *de facto* economic integration, namely economic integration which refers to the actual use of trade facilities (Hurrell, 1995). *De facto* economic integration is a major measure and the key to the success of trade pacts. Countries which are failed to maximize the utilization of facilities will severe loss on its economy by creating dependence with partner countries without increasing domestic productivity (Case et al., 2017).

Utilization rate of free trade agreement in Indonesia consider in low-level state. In Graph 2, even though there is an escalating in percentage of preferential tariff, the rate is still under 50% of total import from ASEAN+5. On the other side, export activities related to utilization of certificate of origin (COO) narrowly reach 1% of total export to ASEAN+5, furthermore, the utilization rate of COO undergo a sloping decline from 2016 to 2020.



Source: Directorate General of Customs and Excise (processed)
Graph 2. Utilizaton Rate of ASEAN+1 FTAs

The low utilization of trade facilities is a loss for Indonesia because products from Indonesia did not benefit from trade facilities from ASEAN+5 that provided facilities of doing export. The low utilization of trade facilities had been the object of previous research, the ratio of utilization of FTAs had Indonesia ranges from 30 to 35% with AFTA 30.43%, ACFTA 35.98%, AKFTA 33.61%, and

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IJEPA 32.65% (Sitepu & Nurhidayat, 2015). Previous study related to RCEP is limited due to the trade deal that had just been signed on 15 November 2020 and the ratification is on going so the data, documents and references related is on progress mainly the schedule of tariff commitment.

2. LITERATURE REVIEW

Enabling cross-border trade makes fulfillment of domestic essential goods needs (Novith & Ridho, 2020) and provides benefits for the related parties achieving economic scale (Curtis & Irvine, 2017). Brodzicki & Kwiatkowski (2018) found a substantial part of technological advances gap as the determinant of international trade relation. Based on the Heckscher-Olin theory known as the proportional factor theory, stated that countries that manage to produce and maintain low cost in producing certain product for export purposes have higher production factor and will gain from international trade (Ngwenya & Pelser, 2018; Raj & Chand, 2017).

International relations in fulfilling and encouraging economic activity create economic integration. Economic integration is a policy of reducing barriers to international trade and establishing unification. Concept of economic integration is the same as trade liberalization, discriminatory policy mechanism between member and non-member countries takes form as elimination or reduction of tariff and non-tariff barriers so it creates a creation and diversion impact for member countries (Salvatore, 2014).

Salvatore (2013) depicts the emergence of equilibrium price of commodity from cross-border trade in term of a partial equilibrium analysis. Excess supply of certain commodities in home country at a lower domestic price than other country which experience shortage of supply and excess demand that makes it pricier. This encourages home country to export to other country to gain trade advantages. So that the world equilibrium price is formed which is the intersection of excess supply from home country and excess demand of other country.

Simplification of trade process such as procedural technic, transparency of information and utilization of new technologies to make trade easier is clear definition of trade facilitation (Zaki, 2015). Trade facilitation in a narrow sense is often associated with reducing transaction costs at the border apart from tariffs elimination. Meanwhile, in a broader sense, trade facilitation is related to the business

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environment, quality of infrastructure, transparency, and domestic regulations that have an impact on export performance (Ramasamy & Yeung, 2019; Sakyi et al., 2017). Export activities are closely related to trading facilities (Suryanti, 2017).

Viner (1950) depicted FTA effect by looking at changes in tax revenue, consumer surplus and producer surplus. Tariff constraints reduced in trade pact lessen tax burdened by market players to penetrate other countries' market and drive trade creation effect. Joining the FTA means lowering member's tariffs on import duty and the commodities are cheaper than non-member FTA's.

Economic impact of RCEP had been analyzed by the World Bank (Cali et al., 2019). The World Bank data shows that the agreement would encompass 2.3 billion people, which is equivalent to 30% of the world's population. The agreement would contribute to about 30% of global GDP, which is approximately US$ 25.8 trillion. Additionally, the agreement would account for over a quarter of global trade in goods and services, which is US$ 12.7 trillion, and 31% of global FDI inflows. Using linkage model which is a dynamic global Computable General Equilibrium model concluded that RCEP is expected to yield lower benefits because there are few prospects of increasing that level significantly and members have achieved relatively high levels of liberalization among themselves. Peterson Institute for International Economics employed CGE model to estimating global economic benefits of RCEP (Petri & Plummer, 2020). The study showed that RCEP will escalate global national income by USD186 billion per year. Top gainer predicted is China, Japan and South Korea and losses for India. Other RCEP winners include Indonesia, Malaysia, Thailand and Vietnam.

Li, Scollay & Gilbert employed a general equilibrium analysis model suggested that RCEP will provide China with a profit of around USD103 to 214 billion, which is 1.10-2.20% of GDP (Li et al., 2017). In Li & Moon's research concluded that RCEP will increase China's trade by 1.50% & Chinese revenue 2.50%. Korea's trade increase of USD8 billion & revenue 0.60%. Increasing China prosperity USD214 billion and Korea earn USD23 to 35 billion (Li & Moon, 2018). Other research using the general equilibrium model was carried out by Kawasaki which concluded that the benefits of bilateral FTAs and EPAs with Japan will be smaller than those of the TPP. China's gains from RCEP are relatively limited depending on the level of the

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agreement and considering the negative impact of possible US tariffs (Kawasaki, 2017). The economic impact of the EPA is greater than that of the TPP, assuming that the membership of the TPP can be expanded after the US withdrawal, and RCEP can be implemented (Kawasaki, 2018).

Other studies analyzed the impact of RCEP and its impact on the US-China trade war (Mahadevan & Nugroho, 2019) employed the general equilibrium model. Mahadevan & Nugroho found that the global gains from RCEP were not sufficient to overcome the negative impact of the United States-China trade war. The impact of RCEP on welfare and sectoral adjustment was investigated by Lee & Itakura. The general dynamic balance model in the study found the increase in the welfare of ASEAN countries under the RCEP-led scenario, followed by RCEP + Taiwan and the Free Trade Area of the Asia-Pacific (FTAAP), greater or equal to that under the led scenario. by TPP sans AS, followed by an enlarged TPP and FTAAP (Lee & Itakura, 2018). Another country-specific study using the small open economy model in analyzing the impact of RCEP for the Philippines concluded that there are large gains from deep integration, but hardly any gains from preferential tariff reductions. Kikuchi et al., (2018) analyzed the impact of RCEP for Vietnam using the general equilibrium model. The economic benefits of RCEP are relatively small.

In contrast to previous studies, this study is conducted after the RCEP was signed so the data obtained is the final document of trade pact. Previous research was dominated by computable general equilibrium analysis so this study can complement the results of previous studies using partial equilibrium analysis by SMART simulator which is different from general equilibrium analysis. This study aiming to simulate the impact of RCEP on the signers and identify potential export commodities for Indonesia to optimize the utilization of RCEP's trade facilities.

3. METHODS

Type and Data Resources

Conducting simulation in this study must consider the Covid-19 pandemic and its impact on international trade so to make the simulation using RCEP scheme more accurate this study employed cross-section data in 2019 for conducting partial equilibrium analysis. The data extracted from web-based software, namely the WITS site where there are numerical data (import values, export values, trade balance, tax rates) and categorical types

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(HS Code commodities). Other data used was the utilization of trade facilities from the Indonesia Customs.

Constructing recommendations list of Indonesia's leading commodities needs Indonesia's export data in 2010 – 2020 based on commodities and provinces obtained from the Ministry of Trade and the Central Bureau of Statistics then it is compared to importation data from RCEP signers for the period 2017-2019 to identify market segment by commodities.

Method Analysis

This study employed partial equilibrium analysis with SMART simulator that included in World Integrated Trade Solution (WITS) used for market analysis. It focuses on one importing market and exporting partners then assessing the impact of tariff change scenario by estimating new values for a set of variables. Partial equilibrium analysis is *ex-ante* analysis recommended by Asian Development Bank in projecting the impact of trade pact. Detailed product-level estimates of the impact of tariff reductions are not possible in other models (Bangga et al., 2021).

Importir country (*j*) import (*M*) a commodity (*i*) from exporting countries (*k*) at income level (*Y*) of the country (*j*). The price (*P*) of import and product exporting countries (*k*) define:

(1) $M_{ijk} = F\left(Y_j, P_{ij}, P_{ik}\right)$, commodity supply in exporting countries depict as:

(2) $X_{ijk} = F\left(P_{ikj}\right)$, equations (1) and (2) are related and can be as follow:

(3) $M_{ijk} = X_{ijk}$

In free trade scheme, we assume the commodity price in importing country is equal to the price in exporting country plus transportation cost, insurance, and other cost equal to the tariff and non-tariff:

(4) $P_{ijk} = P_{ijk})$, income received by exporting country become:

(5) $R_{ikj} = X_{ikj}.P_{ikj}$, import demand elasticity (*Em*) related to domestic price is as follows:

(6) $\frac{\Delta M_{ijk}}{M_{ijk}} = Em\left(\frac{\Delta P_{ijk}}{P_{ijk}}\right)$,

(7) $\frac{\Delta M_{ijk}}{M_{ijk}} = Em\left(\frac{\Delta T_{ijk}}{(1+T_{ijk})} + \frac{\Delta P_{ijk}}{P_{ijk}}\right)$

In addition to import demand elasticity, export supply elasticity (*Ex*) to global price define as follows:

(8) $\frac{\Delta P_{ijk}}{P_{ijk}} = \left(\frac{\Delta X_{ikj}}{X_{ikj}}\right)/Ex$

(9) $\frac{\Delta M_{ijk}}{M_{ijk}} = \frac{\Delta X_{ikj}}{X_{ikj}}$

Increasing in demand of certain commodity (*i*) in importing country (*j*) from other countries (*k*) in free trade scheme is the result of the declining of price (*P*) related to tariff reduction covered

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in free trade agreement (trade creation) formulated as follow:

(10) $TC_{ijk} = M_{ijk}.Em.\Delta\, t_{ijk}/$

If Ex is infinite and therefore exogenous to the model, the denominator in the previous equation is 1.

(11) $(1 + T_{ijk}).\left(1\left(\frac{Em}{Ex}\right)\right) \equiv 1$

Trade diversion is closely related to changes in the country that provides the product because of the shift in the price of imports from one country but in others it remains constant. This also happens because of a decrease in the price of a country or because countries that provide products take advantage of preferential tariffs and others do not. This study performs simulations using various elasticity of substitution (*Es*) even though the values used are the same for the same type of goods.

(12) $Es = \frac{\Delta(\sum M_{ijk}/\sum M_{ijK})/(\sum M_{ijk}/\sum M_{ijK})}{\Delta(P_{ijk}/P_{ijK})/(P_{ijk}/P_{ijK})}$

Where k represents imports from one group of foreign suppliers, *K* represents imports from another group of foreign suppliers, and the sum is only across *k* or *K* country groups but not across product groups (*i*) nor across imports (*j*). In calculating a trade diversion as a result of a change in the rate of tax paid by prices relative to prices from other sources as a result of changes in commercial policy:

(13) $TDi_{ijk} =$

$$\frac{M_{ijk}}{M_{ijK}}.\frac{\sum M_{ijk}.\sum M_{ijK}.Es.\frac{\Delta\left(\frac{P_{ijk}}{P_{ijK}}\right)}{\frac{P_{ijk}}{P_{ijK}}}}{\sum M_{ijk}+\sum M_{ijK}+\sum M_{ijk}.Es.\frac{\Delta\left(\frac{P_{ijk}}{P_{ijK}}\right)}{\frac{P_{ijk}}{P_{ijK}}}}$$

The total trading effect will be obtained by adding trade creation and trade switching in the case of single products and product groups. WITS assumes an unlimited supply elasticity so that there is no price effect on exports. Exporting country revenues increase in line with the increase in exports. In this study, it is assumed that many countries are suppliers of products consistently, except in the case of certain capital commodities where the elasticity of supply can be unlimited. In this case, the income effect is based on the percentage increase in exports added to the percentage increase in prices.

Estimating the impact of removing tariffs on member countries' trade, two scenarios were considered. The first scenario was a hundred percent trade liberalization which is the goal of RCEP; and the second scenario was limited tariff liberalization which issues a list of commodities included in the Sensitive List (SL) and the actual Tariff Rate Quotas (TRQ) based on the tariff reduction scheme provided by RCEP signers. All products that have limited liberalization (that is,

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tariffs do not drop to zero or have a tariff quota) were excluded from simulation. The tariff reduction schedule scheme in the second scenario was taken from the Australian government website, DFAT. The results of the analysis were presented using the combined HS nomenclature.

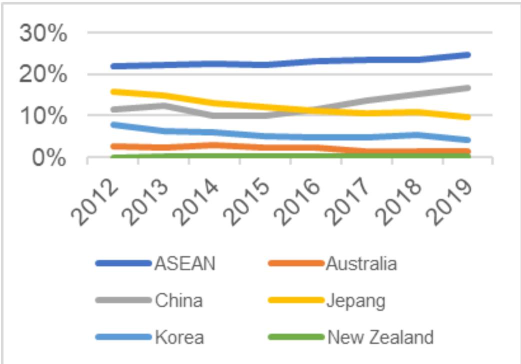
Spatial Analysis

Spatial analysis were carried out in compiling recommendations for a list of Indonesia's leading commodities. Spatial analysis is an analytical technique to map or measure the distribution of an event based on geographic location (Oyana, 2020). Spatial analysis can help in providing an overview of the distribution of an event or size distribution, in compiling a list of featured commodities. Spatial analysis is an appropriate analysis because it allows the author to analyze and present the results of the analysis based on geographic location.

4. RESULT AND ANALYSIS

Indonesia's Trade with ASEAN+5 pre RCEP

Trade relations of ASEAN+5 countries existed before RCEP was initiated. Realizing that each country needs one another, forming a trade pact will be great to ensure the flow of goods between members. Graph 3 shows percentage of Indonesia's export to ASEAN+5 with Indonesia's export in total. In aggregate, the percentage of Indonesia's exports to ASEAN+5 is above 50% with ASEAN being the most favorable export destination stable above 20%, then China in 10-16% and Japan in 9-15% annually. Korea, Australia and New Zealand have less than 10% annually.



Graph 3. Indonesia's Export Performance Based on Destination
Source: UN Comtrade (processed)

In 2012 – 2019 Indonesia's export experienced an upward trend for ASEAN and China and a downward trend for export to Japan, Korea and stable trend for Australia and New Zealand. In Table 3, Indonesia's top export commodities to ASEAN+5 in 2019 were mostly chapter 27 mineral fuels with 76% of total export, chapter 15 animal or vegetable fats and oils with 36% of total export and chapter 85 electrical machinery and equipment (59%), chapter 87 vehicle (69%), and chapter 72 iron and steel (68%).

Table 3. Indonesia's Top 10 Export

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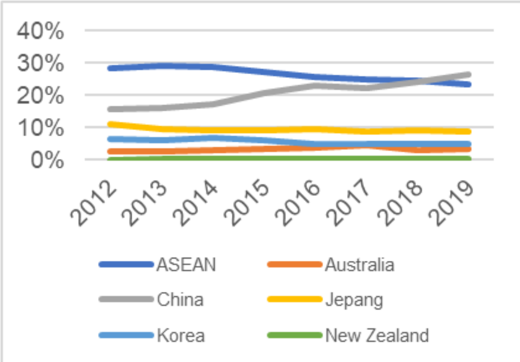
Commodities in 2019 (1000 USD)

HS Code	ASEAN+5	World	%
27	25,968,436	34,105,452	76
15	6,356,472	17,634,842	36
85	5,331,073	9,013,285	59
87	5,640,855	8,187,972	69
72	4,998,596	7,387,412	68
71	4,427,050	6,619,821	67
40	2,119,601	6,025,627	35
84	3,539,955	5,542,612	64
62	1,041,375	4,473,316	23
64	1,121,593	4,409,287	25

Source: UN Comtrade (processed)

Export commodities were dominated by raw or semi-finished goods. Finished goods included in top ten export commodities to ASEAN+5 in 2019 were electrical machinery and equipment (chapter 85), vehicle (chapter 87) and footwear (chapter 64). ASEAN+5's comodities dominate Indonesia' import activities. See Graph 4, more than 60% of Indonesia's commodity imports come from ASEAN at 23-28%, China at 15-26% and Japan at 8-16%. Imported goods originating from China and Australia have an increasing trend from 2012-2019 and imported goods experiencing a downtrend are from ASEAN.

Chapter 84, 27, 85, 72, 39, 87, 29, 73, 10, and 90 were the most imported commodities. In 2019 the most imported commodities from ASEAN+5 were nuclear reactors with 76% of total import, mineral fuel (59%), electrical machinery and equipment (80%), iron and steel (64%), plastics and articles (64%), vehicles (79%), organic chemicals (69%), articles of iron and steel (85%), cereals (12%), optical etc (62%), as detailed in Table 4.



Graph 4. Indonesia's Import Based on Origin Country
Source: UN Comtrade (processed)

Table 4. Indonesia's Top 10 Import Commodities in 2019 (1000 USD)

HS Code	ASEAN+5	World	%
84	20,320,124	26,817,437	76
27	13,901,629	23,480,062	59
85	16,001,890	20,067,140	80
72	6,684,983	10,396,966	64
39	6,836,635	8,784,619	78
87	5,644,444	7,161,391	79
29	4,022,484	5,818,608	69
73	3,114,110	3,651,318	85
10	375,422	3,237,323	12
90	1,769,861	2,874,410	62

Source: UN Comtrade (processed)

Lesser value-added commodities dominated cross border trade Indonesia. Raw or semi-finished goods have lower sales prices compared to industrial products, so the benefit gained from trading goods is not optimal. Indonesia's cross-border trade activities are predominantly aimed at and originating from ASEAN+5 that are signatories of

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RCEP, it can be interpreted that Indonesia's domestic needs and the dominant source of foreign exchange come from RCEP signatories. Dominant trade activities characterize interdependence between countries so initiating trade agreements to facilitate trade activities between member countries is the right decision.

Regional Comprehensive Economic Partnership

The objective in forming a free trade agreement is to enhance productivity and wider market access (Case et al., 2017), so the relation between export performance and trade pact provided being the main focus (Marti et al., 2014), and the impact to the national revenue (Crivelli, 2016; Gnangnon, 2017; Karimi et al., 2016). See Table 5, RCEP scheme on ASEAN+5 export shows that enhancement in export doesn't occur to all RCEP signer.

Table 5. RCEP Scheme on ASEAN+5 Export (1000 USD)

Country	Pre RCEP	Post RCEP (1st scenario)		Post RCEP (2nd scenario)	
		Export	%	Export	%
Australia	195,178,521.30	198,133,690.50	01.51	196,093,911.90	00.47
Brunei	5,874,854.20	5,883,184.20	00.14	5,881,876.30	00.12
Cambodia	7,492,918.40	7,354,140.80	**-1.85**	7,383,170.40	**-1.46**
China	587,781,044.30	611,930,566.10	04.11	597,534,401.50	0,0875
Indonesia	105,771,160.10	106,806,296.90	0,068055556	106,268,716.00	00.47
Japan	348,430,767.60	375,538,656.40	0,345833333	359,033,640.70	03.04
Korea, Rep.	311,835,105.80	322,123,154.00	03.30	314,129,536.80	0,051388889
Lao PDR	3,831,555.30	4,178,181.40	09.05	3,826,055.70	**-0.14**
Malaysia	153,110,020.50	153,097,668.40	**-0.01**	153,067,381.40	**-0.03**
Myanmar	10,091,339.90	10,086,192.10	**-0.05**	10,006,832.60	**-0.84**
New Zealand	20,869,924.30	21,472,931.60	0,145138889	21,203,964.30	0,083333333
Philippines	46,986,346.20	47,041,201.20	00.12	46,971,558.00	**-0.03**
Singapore	90,501,817.10	91,085,036.80	0,044444444	90,749,320.90	00.27
Thailand	134,504,755.80	136,747,781.90	0,088194444	135,460,683.80	0,049305556
Vietnam	118,527,257.60	118,787,636.30	00.22	118,240,826.80	**-0.24**

Source: SMART Simulator (processed)

Cambodia, Laos, Malaysia, Myanmar, Philippines, and Vietnam have slight declined in export in RCEP scheme second scenario whereas other countries have an increase from 0 to 3%. In fist scenario, Laos, Philippines, and Vietnam experience slight rise in export. Only Cambodia, Malaysia, Myanmar experience declining in export activities in both scenarios. The export performance growth varies among all the signatories and there are only slight changes in export

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performance.

The negative change in export activities experience by ASEAN only because they already had ASEAN+1 FTAs with each partner so tariff liberalization in RCEP slightly increase compared to ASEAN+1 FTAs. In second scenario, Indonesia export performance is projected to increase by 0.47% in RCEP scheme and expected to increase more in first scenario by 0.98%. Export performance in second scenario is lower than first scenario but compared to other ASEAN countries, 0.47% is the second highest value after Thailand (0.71%). ASEAN partner countries, Japan experienced the highest increase (3.04%) followed by China (1.66%), New Zealand (1.60%), Korea (0.74%) and Australia (0.47%).

The simulation results of the import activity of the RCEP scheme are carried out by comparing the first scenario (full liberalization) and second scenario (SL & TRQ). Table 6 reveals that after RCEP ASEAN+5 countries experienced an increase in imports other than Singapore. Singapore has given a hundred percent trade liberalization before RCEP so there will no change whether RCEP entry into force.

Table 6. RCEP Scheme on ASEAN+5 Import (1000 USD)

Country	Pre RCEP	Post RCEP (1st scenario)		Post RCEP (2nd scenario)	
		Import	%	Import	%
Australia	190,327,277.00	190,342,955.60	00.00	190,330,817.80	00.01
Brunei	4,582,392.00	4,582,807.30	00.01	4,582,694.80	00.01
Cambodia	12,367,801.80	14,858,211.40	11.07	13,737,457.50	20.14
China	2,041,233,777.90	2,059,416,114.30	00.21	2,045,585,245.30	0,0618056
Indonesia	153,551,674.50	154,725,655.40	00.30	154,011,641.50	0,0527778
Japan	671,880,077.20	680,236,790.10	01.11	679,344,170.20	01.24
Korea	453,974,408.40	464,406,092.10	00.52	456,354,092.60	02.30
Lao PDR	4,791,514.60	4,890,259.90	01.08	4,843,120.40	02.06
Malaysia	166,601,683.90	171,538,256.80	01.07	168,377,889.10	0,15
Myanmar	14,632,678.70	14,950,175.50	0,09722	14,896,796.30	02.17
New Zealand	38,811,870.60	38,820,565.10	00.00	38,813,661.40	00.02
Philippines	107,083,570.20	107,898,499.30	00.02	107,109,978.60	0,0527778
Singapore	305,219,252.50	305,219,252.50	00.00	305,219,252.50	00.00
Thailand	201,283,670.90	203,820,729.30	00.04	201,365,448.10	01.26
Vietnam	240,238,356.30	244,262,553.40	00.14	240,576,111.90	0,0888889

Source: SMART Simulator (processed)

Limited tariff reduction or one hundred percent tariff liberalization on goods inflow escalates import activities and lower tax revenue. Lowering tax revenue due to tariff facilitation provided in free trade agreement can be viewed as negative impact in point of view of government and similar-goods domestic

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producer yet has positive impact to consumer. Positive value for consumer can be seen as consumer surplus, as seen in Table 7. Consumer surplus is net gain or excess of what excess of what buyer is willing to pay for an item over what he actually paid for (Mankiw, 2016).

Table 7. RCEP Impact on Tax Revenue (1000 USD)

Country	Tax Revenue Pre RCEP	Tax Revenue (1st scenario)			Tax Revenue (2nd scenario)		
		Post RCEP	%	Consumer Surplus	Post RCEP	%	Consumer Surplus
Australia	1,435,362.20	1,424,431.60	**-0.01**	154.70	1,432,515.60	**-0.00**	32.40
Brunei	939.30	469.70	**-0.50**	7.50	608.40	**-0.35**	5.70
Cambodia	1,208,279.10	189,019.40	**-0.84**	152,279.90	483,897.80	**-0.60**	97,373.00
China	51,934,148.90	36,760,403.90	**-0.29**	1,131,350.60	47,544,541.20	**-0.09**	.78,685.50
Indonesia	3,029,491.20	2,134,322.90	**-0.30**	77,135.50	2,728,737.20	**-0.10**	25,108.70
Japan	8,277,890.60	2,895,817.80	**-0.65**	387,985.00	3,424,114.70	**-0.59**	355,115.70
Korea	21,918,552.00	11,839,148.80	**-0.46**	1,725,891.00	19,394,949.30	**-0.12**	.47,287.30
Lao PDR	36,596.90	18,284.40	**-0.50**	1,573.90	24,302.50	**-0.34**	769.60
Malaysia	6,131,593.30	1,303,894.90	**-0.79**	501,457.20	4,518,616.30	**-0.26**	.18,021.20
Myanmar	264,658.80	110,107.00	**-0.58**	15,278.10	143,280.50	**-0.46**	13,919.30
New Zealand	355,798.90	346,341.00	**-0.03**	142.20	353,833.40	**-0.01**	24.00
Philippines	1,793,667.60	1,153,731.20	**-0.36**	74,089.70	1,765,645.20	**-0.02**	1,672.10
Singapore	-	-	-	-	-	-	-
Thailand	7,146,543.80	4,615,910.80	**-0.35**	405,525.40	7,059,177.10	**-0.01**	1,913.80
Vietnam	3,979,334.50	2,560,260.00	**-0.36**	259,242.30	3,695,764.50	**-0.07**	18,586.00

Source: SMART Simulator (processed)

An increase in the value of imports and a decrease in tax duty are shifts from state revenues to an increase in consumer purchasing power as indicated by a consumer surplus. Consumer surplus is an advantage for consumers over the reduced price that should be paid which can be used as measurement of social welfare (Harrison & Ng, 2016; Sinayi & Rasti-Barzoki, 2018). The highest consumer surpluses were obtained by Japan, China and Korea. For ASEAN, the consumer surplus was obtained by Malaysia, Cambodia and Indonesia.

Forming trade pack does not guarantee a positive impact for each member. Overall, the total value of trade (exports and imports) has increased, but if the increase in import activity is higher than export activity, it has negative impact on trade balance. In the second scenario, RCEP lead to a negative impact on the trade balance are ASEAN countries (Cambodia, Laos, Malaysia, Myanmar, the Philippines and Vietnam) and Korea. The highest negative impacts were experienced by Cambodia and Malaysia at -30.35% and -13.48% (See Table 8).

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Table 8. RCEP Impact on Trade Balande ASEAN+5 (1000 USD)

Country	Trade Balance Pre RCEP	Post RCEP (1st scenario)		Post RCEP (2nd scenario)	
		Trade Balance	%	Trade Balance	%
Australia	4,851,244.40	7,790,735.00	60.59	5,763,094.10	18.80
Brunei	1,292,462.20	1,300,376.80	0.61	1,299,181.50	0.52
Cambodia	-4,874,883.30	-7,504,070.60	**-53.93**	-6,354,287.10	**-30.35**
China	-1,453,452,733.60	-1,447,485,548.20	0.41	-1,448,050,843.80	0.37
Indonesia	-47,780,514.50	-47,919,358.50	**-0.29**	-47,742,925.50	0.08
Japan	-323,449,309.60	-304,698,133.70	5.80	-320,310,529.60	0.97
Korea, Rep.	-142,139,302.50	-142,282,938.10	**-0.10**	-142,224,555.80	**-0.06**
Lao PDR	-959,959.20	-712,078.50	25.82	-1,017,064.80	**-5.95**
Malaysia	-13,491,663.40	-18,440,588.40	**-36.68**	-15,310,507.70	**-13.48**
Myanmar	-4,541,338.70	-4,863,983.30	**-7.10**	-4,889,963.60	**-7.68**
New Zealan	-17,941,946.40	-17,347,633.50	3.31	-17,609,697.10	1.85
Philippines	-60,097,224.00	-60,857,298.10	**-1.26**	-60,138,420.60	**-0.07**
Singapore	-214,717,435.40	-214,134,215.70	0.27	-214,469,931.50	0.12
Thailand	-66,778,915.10	-67,072,947.40	**-0.44**	-65,904,764.20	1.31
Vietnam	-121,711,098.70	-125,474,917.10	**-3.09**	-122,335,285.10	**-0.51**

Source: SMART Simulator (processed)

Australia is the country with the highest percentage increase in the impact of RCEP on the trade balance at 18.80%, then New Zealand at 1.85% and Thailand at 1.31%. Indonesia experienced an increase in the trade balance by 0.08%, this increase reduced the negative value of Indonesia's pre-RCEP trade balance. If the trade liberalization is a hundred percent, Laos will experience a large increase in the trade balance of 25.82% whereas in the second scenario it will decrease by -5.95%. On the other hand, the first scenario can have a negative impact on Indonesia and Thailand, which were originally in the second scenario which increased by 0.08% and 1.31%, respectively, to -0.29% and -0.44%.

The increase in Indonesia's trade balance is relatively low compared to ASEAN partner countries, namely Australia, Japan, New Zealand and China. By executing RCEP scheme in second scenario, Indonesia is expected to benefit from the RCEP trade agreement, but if the trade scheme becomes fully liberalized (first scenario) Indonesia will suffer losses, so to optimize market access and trade facilities obtained from RCEP, Indonesia needs to explore the potential export commodities and encourage domestic producers to take advantage of the trade facilities owned by Indonesia.

Indonesia Potential Export

Identifying potential commodities of Indonesia become preliminary step to enhance utilization rate of free trade agreement and stimulate domestic production. Export potential commodities is Indonesia commodities having chance to

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escalate their export activities to meet high demand from partner countries but percentage of supplier from amenity-receiver member countries stagnate under 50% of demand total.

The author collated potential commodities by identifying the need of RCEP member over import commodities. Importation data from each member was sorted based on the highest value then weeded out commodities supplied by partner countries more than 50% of import amount. Author sorted commodity based on its HS Code that have zero exportation in 2017 to 2019 for eliminating commodities that have limited or zero production, not eligible to meet quality standards for export or commodities that have not been able to compete internationally yet.

There are a hundred and sixty-five commodities sorted by harmonized system code 2012 that Indonesia can encourage domestic production. The commodities have high demand from ASEAN+5 or RCEP members but the supplier of them is under 50% from amenities-receiver countries. The number of potential commodities gradually decrease as the percentage of supplying countries decreases, under 40% there are 136 potential code of commodities, under 30% there are 104 potential commodities, under 20% there are 67 commodities that potential to increase export activities, under 10% there are 48 potential codes and under 5% there are only 32 potential codes. Harmonized system codes that have potential for Indonesia export performance are mapped based on destination country, mainly ASEAN+5. This study used percentage <50% for mapping potential code.

Mapping of potential HS codes based on the country of destination is used to identify the target market of producers or industries in Indonesia based on the commodities or goods produced. Based on a list of potential commodities by destination country, the author identifies provinces in Indonesia that have export activities for the commodities. The author uses secondary data from Central Bureau of Statistics and Ministry of Trade. Figure 1 shows the number of potential codes of each province processed using R.

Figure 1. Potential Commodity
Source: Central Bureau of Statistics & Indonesian Ministry of Trade (processed)

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Potential commodities identified can be a recommendation for government institutions in encouraging and profiling featured products of each region to escalate its production for export purpose. Mapping of potential commodities by country of destination and province of origin can be used for local governments to explore potential and encourage productivity to increase economic activity. Table 9 is a list of ten potential Indonesian commodities to increase domestic productivity with the aim of exporting. These commodities are identified based on requests from Indonesia's partner countries, namely ASEAN and five ASEAN partners: Australia, China, Japan, Korea, and New Zealand. These commodities refer to the 2012 HS Code.

Table 9. Top Ten Featured Product

HS Code	Importer	INA Province	ASEAN+5 (%)	Potential (1000 USD)
300490	12	14	0,420138889	133,783,157
880330	9	18	0,753472222	32,060,587
270900	8	18	04.53	1,264,914,004
901890	7	11	20.51	30,254,553
854231	7	9	40.90	525,459,945
848180	6	13	33.56.00	23,018,937
330499	5	15	30.42.00	10,467,394
870899	5	14	30.59.00	15,214,519
390110	5	11	05.35	17,288,581
841191	5	5	00.01	47,939,265

Source: processed by author

Commodities with HS code 300490, namely medicines, there are twelve countries with high import demand, namely Australia, China, Cambodia, Japan, Korea, Malaysia, Myanmar, New Zealand, Philippines, Singapore, Thailand and Vietnam. Commodity 300490 is produced by 14 provinces in Indonesia, namely North Sumatra, Riau, Riau Islands, DKI Jakarta, West Java, Central Java, D.I Yogyakarta, East Java, Bali, East Nusa Tenggara, North Kalimantan, South Sulawesi, and Papua. Commodities with the HS code 880330 is needed by nine RCEP member countries, namely Australia, Brunei Darussalam, Japan, Malaysia, Myanmar, New Zealand, Philippines, Singapore and Vietnam. This commodity is produced in 18 provinces in Indonesia, namely North Sumatra, Riau, Jambi, South Sumatra, Lampung, Riau Islands, DKI Jakarta, West Java, Central Java, D.I. Yogyakarta, East Java, Bali, West Nusa Tenggara, West Kalimantan, East Kalimantan, North Sulawesi, South Sulawesi and Papua.

Commodities with HS code 270900 have high demand from China, Korea, Japan, Malaysia, New Zealand, Singapore, Thailand and Vietnam. It is produced by 18 provinces in Indonesia, namely Nanggroe Aceh Darusalam, Riau, Jambi, South Sumatra, Bangka Belitung, Riau Islands, DKI Jakarta, West Java, Central Java, East Java, Banten, West Kalimantan, South

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Kalimantan, East Kalimantan, Central Sulawesi, Maluku, West Papua, and Papua. Commodities with HS code 901890 was imported by Australia, China, Korea, Japan, Malaysia, New Zealand, and Singapore. This commodity is produced in eleven provinces in Indonesia, namely North Sumatra, Riau Islands, DKI Jakarta, Central Java, East Java, Bali, West Nusa Tenggara, East Nusa Tenggara, West Kalimantan, East Kalimantan and Papua. Commodities with the HS code 854231 was imported with great value by China, Japan, Korea, Malaysia, Singapore, Thailand and Vietnam. This commodity is produced in nine provinces in Indonesia, namely North Sumatra, Riau Islands, DKI Jakarta, Central Java, East Java, Bali, East Nusa Tenggara, Kalimantan and Papua.

Commodities with HS code 848180 was imported by Australia, China, Korea, Malaysia, New Zealand, and Singapore. It is produced in thirteen provinces in Indonesia, namely North Sumatra, Riau, South Sumatra, Lampung, Riau Islands, DKI Jakarta, Central Java, East Java, Banten, Bali, East Nusa Tenggara, East Kalimantan and Papua. High demand for commodities with HS code 330499 came from Australia, Korea, Malaysia, New Zealand, and Singapore. This commodity is produced in 15 provinces in Indonesia, namely North Sumatra, Riau, Lampung, Riau Islands, DKI Jakarta, West Java, Central Java, D.I. Yogyakarta, East Java, Bali, East Nusa Tenggara, West Kalimantan, East Kalimantan, North Kalimantan and Papua.

Commodities with HS code 870899 was imported by Australia, China, Korea, New Zealand, and Singapore. This commodity is produced in 14 provinces in Indonesia, namely North Sumatra, South Sumatra, Lampung, Riau Islands, DKI Jakarta, West Java, Central Java, D.I. Yogyakarta, East Java, Bali, East Nusa Tenggara, West Kalimantan, East Kalimantan and Papua. While HS code 390110 which imported by China, Malaysia, Myanmar, Singapore and Vietnam. Indonesia exports this commodity by 0.35% of the total demand and is produced by eleven provinces in Indonesia, namely North Sumatra, Riau Islands, DKI Jakarta, Central Java, East Java, Banten, Bali, East Nusa Tenggara, West Kalimantan, East Kalimantan and Papua. Commodities with HS code 841191 have high import values in China, Japan, Malaysia, New Zealand and Singapore. Production of this commodity is in five provinces in Indonesia, namely North Sumatra, Riau Islands, DKI Jakarta, East Kalimantan, Papua.

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CONCLUSION

RCEP was able to improve Indonesia's cross-border trade performance. The increase in Indonesia's exports was the second highest number after Thailand, but relatively lower compared to ASEAN partner countries. However, RCEP deserves Indonesia's attention because the low of utilization rate of trade facilities. Utilization rate of preferential tariffs on imported goods that were below 50% and the utilization of certificates of origin for export goods which did not reach 1% should be a warning to the Indonesia. Exports need to be increased in order to take advantage of trade facilities and optimize Indonesia's economic growth.

ASEAN+5 trade historical data showed that there were high demand commodities supplied by non-recipient countries. The commodities is projected as potential market for Indonesia to target by increasing domestic production and aiming to meet RCEP members demand. Potential export for Indonesia amounted to 165 commodities with the percentage of suppliers from RCEP members below 50%. Among the 165 commodities, there were 10 commodities with the highest number of countries in need, namely medicines, aircraft/helicopter spare parts, petroleum oil and condensate, medical instruments or equipment, processors or controllers, taps, cocks, valves, equipment for pipes, beauty preparations, motor vehicle accessories, polyethylene with density less than 0.94 and turbo-jet or propeller spare parts. These commodities were produced in various provinces in Indonesia.

Utilization rate of trade facilities is extremely low, notably in exports. Government should take into account the utilization of trade facilities in measuring international trade impact and focus more on identifying potential businesses to take part in global market share and gaining economic benefits through trade facilities' utilization to increase the competitiveness of Indonesia products abroad.

The list of potential commodities as a basis for mapping the target market and optimizing the potential of each province can empower local enterprises that produce the commodities by providing technical and financial assistance or assistance so that they reach international market share.

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