The Next Chapter of ASEAN Economic Community through Integrating with the existing FTA partners (RCEP), Turkey, and Pakistan

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Abstract

Economic integration is nowadays likely to be larger in major economies around the world, especially among the ten active countries in the Southeast Asia. The purpose of this study is to investigate the impacts of the possible trade agreement between the ASEAN and its current FTA partners as RCEP, Turkey, and Pakistan through Computable General Equilibrium (CGE) model using Global Trade Analysis Project (GTAP) model. This study reveals that most of the ASEAN member countries is positively affected under various trade bloc on their GDP, export, import, and regional household income. However, there is the difference in the level of gains among all members which leads to an urgent responsibility to create an inclusive growth.

keywords: *AEC; FTA; RCEP; Trade liberalization; CGE model; GTAP model*

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1. Introduction

With an inability to move forward on the plurilateral agreement from the World Trade Organization (WTO)'s Doha round meeting, Asian economies are still enthusiastic to keep on Free Trade Agreement (FTA) activity (Kawai & Wignaraja, 2010). After an achievement of the ASEAN Free Trade Area (AFTA) which is developed to ASEAN Economic Community (AEC) and will come into force by the end of 2015, the ten countries of the Association of Southeast Asian Nations (ASEAN) are likely to be active in trade agreement through integrating with many countries around the world, for example, Australia, New Zealand, and India. Thus, to explore the future path of ASEAN remains challenging.

Among all proposed trade agreements, the Regional Comprehensive Economic Partnership (RCEP) is one of the most vital frameworks among ASEAN members currently. The RCEP is an FTA between ASEAN and the six countries with which ASEAN has current FTA including Australia, New Zealand, China, India, Japan, and South Korea, namely the ASEAN Free Trade Partners (AFPs). Prior to RCEP, this economic relationship is realized as an ASEAN+6 FTA. With the purpose of broadening and deepening its relationship with its FTA partners, the RCEP initiative was launched by the ASEAN leader in 2011 during the 19th ASEAN Summit. According to the enforcement of the AEC, the RCEP will be able to facilitate the fourth objective of AEC Blueprint by helping integrating the ASEAN into the global economy and also making the regional market more competitive. The 1st round of RCEP negotiation was held on May 2013 in Brunei. The three main working groups were set including goods, services, and investment. Afterwards, the sub-working groups about customs procedures, rules of origin, intellectual property, competition, economic and technical cooperation, and dispute settlement were set (Singapore Ministry of Trade and Industry, 2012; New Zealand Ministry of Foreign Affairs and Trade, 2014).

Recently, on February, 2015, Thailand hosted the 7th RCEP-Trade Negotiating Committee (RCEP-TNC) in Bangkok (Thailand Department of Trade Negotiations, 2015). For economic relationship among the RCEP, China is obviously important to all ASEAN countries not only being the main trading partners but also an active investor in this region (Zhang & Hock, 1996; Lijun, 2003; Li, 2012;) and as well for the rest of AFPs (Petri, 1993; Kawai & Wignaraja, 2007; Urata, 2008, Francis, 2011; ASEANstats, 2014). With the leading countries of the RCEP, the accumulated economic size of the proposed RCEP is shown by table 1.

Table1: Economic size of the RCEP measured by total Gross Domestic Product (PPP) (2013)

Trade Bloc	GDP (Trillion U.S. $)	Share of Global GDP (Percent)	Amount of Members
RCEP	21.4995	28.7273	16
NAFTA	19.8558	26.5309	3
EU 28	17.9581	23.9952	28
AEC	2.4122	3.2231	10
EAEU	2.4108	3.2213	4
ROW	10.7038	14.3022	
WORLD	74.8401	100.00	

Source: World Bank (2013)

Note: 1) RCEP denotes the Regional Comprehensive Economic Partnership, NAFTA denotes the North American Free Trade Agreement, EU 28 denotes the European Union with 28 member states, AEC denotes the ASEAN Economic Community, EAEU denotes the Eurasian Economic Union, and ROW denotes rest of the world. 2) The data for Myanmar is not available/published by the World Bank in any year. In term of ASEAN and RCEP, Myanmar's GDP is derived from the United Nations Statistics Division in year 2012.

According to table 1, the RCEP, with current value of GDP, will be the largest trade agreement in term of economic size. Its GDP is around $22 trillion U.S. which is accounted for 28.73 percent of world GDP. An economic size of the RCEP is certainly vast due to China and Japan which are ranked as 2nd and 3rd largest global economy. The RCEP is closely followed by NAFTA and the E.U. For ten ASEAN members, they shares only 3.22 percent of world GDP which is almost similar to the four members of EAEU including Russia, Kazakhstan, Belarus, and Armenia. Thus, 51 countries, both developed and developing countries, in the world are now integrating through trade agreement and, surprisingly, they leave only 14.30 percent of global market to rest of the world - more hundreds of countries.

Besides the RCEP, Turkey and Pakistan may be the next possible negotiating country of AFPs because they have already signed FTA with Malaysia (Malaysia Ministry of International Trade and Industry, 2015). Turkey also has an active plan to make a progress on FTA with South Korea, Japan, Singapore, Vietnam, Indonesia, and Thailand (Ersoy, 2013; Republic of Turkey Prime Ministry Investment Support and Promotion Agency, 2014). For Pakistan, it signed FTA with Malaysia since 2007 which is the first FTA among Muslim countries and had the Preferential Trade Agreement (PTA) with Indonesia since 2012 (Pakistan Ministry of Commerce, 2012). Moreover, there is the Joint Feasibility Study (JFS) between ASEAN and Pakistan through the researchers of both sides (ASEAN Secretariat, n.d.). For bilateral agreement, Thailand is in the process of preparation to start talking about trade

agreement with Turkey and Pakistan (Thailand Department of Trade Negotiations, 2014). As mentioned, the leading economies in the ASEAN including Malaysia, Indonesia, and Thailand have already realized the vital interest from Turkey and Pakistan. Thus, the possibility of Turkey and Pakistan to become the future FTA partners with the ASEAN is significantly obvious. For economic relationship between the ASEAN and the rest member of the RCEP (six countries), Turkey, and Pakistan, it is shown by table 2.

Table 2: Trade Relationship with the ASEAN's FTA partners, Turkey, and Pakistan (2013)

Trade Relationship	Countries	Value (Million U.S. Dollar)
Exporting partners	ASEAN's FTA partners	461,938.80
	Turkey	6,808.68
	Pakistan	4,742.89
Importing partners	ASEAN's FTA partners	500,894.39
	Turkey	1,372.38
	Pakistan	968.92
Trade Balance	ASEAN's FTA partners	-38,955.59
	Turkey	5,436.30
	Pakistan	3,773.97
Total Trade	ASEAN's FTA partners	962,833.19
	Turkey	8,181.06
	Pakistan	5,711.81

Source: International Trade Centre (2013)

According to table 2, overall, the ASEAN has trade surplus with Turkey and Pakistan while its import from the other six countries of the proposed RCEP exceeds its export. For the reasons behind trade deficit with the ASEAN's FTA partners, it is occurred mainly from Vietnam and Singapore while Malaysia, Indonesia, and Brunei has trade surplus with them. Moreover, the value of export from the ASEAN to Turkey, around 6,809 USD million, is greater than the value of import, around 1,372 USD million, by 5 times and this aspects is also found in trading with Pakistan. However, trade deficit happens with Brunei, Laos, and Myanmar. The impacts, thus, from the Free Trade Agreement is unlikely to correctly figure out from trading data merely due to a huge difference of trading structure among ASEAN members. The purpose of this study is to quantitatively investigate the impacts of FTA between the ASEAN countries as AEC and its FTA partners (in the framework of RCEP), Turkey, and Pakistan through Computable General Equilibrium (CGE) model.

2. Materials and Methods

CGE model is written from a set of simultaneous equations captured all transactions in the economy. Each equation contains the behavior of agents (Consumer, producer, government, and rest of the world) whose actions are followed from their fixed coefficients. In simple or standard CGE model, neoclassical assumption is likely to be held. Simply put, the competitive market occurs with the balance between revenue and income and saving and investment. Typically, regional household tries to maximize its satisfaction with budget constraint while firm tries to maximize its profit subject to production function (Technology). Importantly, price mechanism is the solver to equilibrate demand and supply in economy and its core input of every CGE model is the national Social Accounting Matrix (SAM) which contains all interactions in the economy (Lofgren, Harris & Robinson, 2002; Hosoe, Gasawa & Hashimoto, 2010).

Due to its mathematical standard, CGE model is able to perform through many software, for example, GAMS and GEMPECK. One of the notable model is Global Trade Analysis Project (GTAP) model proposed by researcher team at Purdue University (Burfisher, 2011). According to Hertel & Tsigas (1997), GTAP model is implemented in GEMPACK which is able to solve the nonlinear equilibrium problem. GTAP model, similar to other CGE model, is able to simulate the impacts from economic policies (exogenous demanded shock), especially, trade policies. However, GTAP model has some disadvantages. First, even in the same version of GTAP database, each country's SAM is collected in different year. For example, SAM of Thailand is for year 2005 while SAM of Turkey is for year 2002. Second, the maximum disaggregated sector is limited to 57 sectors. Even though it is covered all types of goods and services, it leads to the problem of policies in some specific items, for example, plastics is aggregated with rubber products. Third, the list of possible shocks (economic policies) set by basic GTAP software is less than other CGE models. Currency and labor wage are not included in those shocks. However, with the purpose of trade policies, GTAP model is the most familiar model to simulate an economic impact.

Among the existing strand of knowledge, there are many interesting economic literatures about FTA study among the Asian economy using GTAP model. Nakajima (2002) found the positive impacts of trade agreement between Japan and South Korea on both economy. Also, Chirathivat (2002) stated the benefit from FTA between ASEAN and China through net trade gains due to the equilibrium between China's demand for inputs and ASEAN's supply of natural-based and intermediate inputs which is correspondent to Scollay

(2004) who stated that China is the driving force to make trade agreement in East Asia and the Asia-Pacific more vital. China's economy and welfare itself gain a lot from those trade agreement within this region. In addition, Ando & Urata (2006) studied that effects of FTA among ASEAN+3 and they found the benefit of trade agreement among members. However, Ariyasajjakorn, Gander, Ratanakomut, & Reynolds (2009) found the mix of results under various trade agreement. In term of GDP, under ASEAN+3, South Korea and Vietnam is likely to be the most successful countries while India, Taipei, and Hong Kong received the negative impacts under this scenario. Most recently, Itakura (2013) took in account with a reduction in tariff and non-tariff barriers and found the different positive impacts on real GDP for most of the ASEAN members. In this study, GTAP model version 8.0 is implemented. All scenarios are shown in table 3.

Table 3: Scenarios

Scenario	Details
1	Bilateral FTA between the ASEAN and the ASEAN FTA Partners (AFTs) as RCEP
2	Bilateral FTA between the ASEAN and Turkey
3	Bilateral FTA between the ASEAN and Pakistan
4	Bilateral FTA between the ASEAN and both Turkey and Pakistan
5	Bilateral FTA between the ASEAN and the AFTs as RCEP, Turkey, and Pakistan

Typically, trade barriers are divided mainly into tariff and non-tariff barriers (NTBs), for example, rules, regulations and procedures which are able to restrict the amount of traded goods and services. NTMs are able to be estimated through computation of Ad-valorem Equivalents (AVEs) as implicit tariff. In GTAP model version 8.0, NTMs are included in the model through variable *ams* (Fugazza & Maur (2006); Minor (2013)). An increase in *ams* in item X which is imported from region r causes a decrease in the price of it in region s. So, variable *ams* as exogenous shock is implemented for a reduction of importing cost. As described by Abe & Wilson (2008), an increase of *ams* by 1 percent results in a decrease of price of the imported goods by 1 percent. For the reason of change of variable *ams*, it is occurred due to efficiency changes as a result of trade facilitation (Andriamananjara, Ferrantino, & Tsigas, 2003). Trade facilitation is an improvement in trading procedures which is able to generate trade cost. In this study, the efficiency of trade facilitation which directly affects the price of the imported item is assumed to be increased by 10 percent.

However, another challenge is to estimate the impacts from trade liberalization in services sector. Unlikely to goods, tariff is not levied to person who comes from region r so as to serve or operate in transportation or construction sector in region s. In this study, trade facility is assumed to take place in service sector by 10 percent which is resulted in an increase of convenience. So, there are three sub-scenario in each scenario including 1) elimination of tariffs among all goods 2) elimination of tariff among and reduction of NTBs by 10 percent among all goods and 3) elimination of tariffs among all goods and reduction of NTBs by 10 percent among all goods and services.

3. Results and Discussion

The economic impact on GDP is reported in table 3 while a changes in export, import, and regional household income are displayed in table 4, 5, and 6, respectively.

Table 3: Economic impacts from trade liberalization under various scenarios on GDP

Scenario	1			2			3			4			5		
Sub-scenario	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Cambodia	0.1615	3.2591	3.5475	-0.0116	0.0154	0.0279	-0.0115	0.0397	0.0439	-0.0232	0.0551	0.0719	0.1383	3.3142	3.6194
Indonesia	1.9491	5.3996	5.4304	0.0564	0.1644	0.1662	0.0879	0.1376	0.1383	0.1444	0.302	0.3045	2.0934	5.7016	5.7348
Lao PDR	-0.3984	0.4213	0.5138	-0.0072	0.0079	0.0118	-0.0099	-0.0098	-0.0079	-0.0171	-0.0019	0.0039	-0.4155	0.4194	0.5176
Malaysia	0.7622	6.6293	6.7754	0.0608	0.1418	0.1484	0.1012	0.1586	0.1607	0.162	0.3004	0.3091	0.9242	6.9297	7.0845
Philippines	0.1763	8.9572	9.0952	0.0039	0.0245	0.0278	0.0139	0.0243	0.0275	0.0178	0.0488	0.0553	0.194	9.006	9.1505
ROSEA	2.1059	7.305	7.3547	0.0046	0.023	0.0251	0.0332	0.082	0.0827	0.0378	0.105	0.1078	2.1437	7.41	7.4625
Singapore	0.4851	4.4234	6.1266	0.004	0.0238	0.0464	0.0444	0.0853	0.0962	0.0484	0.109	0.1427	0.5335	4.5325	6.2692
Thailand	1.1233	6.7479	6.9059	0.0335	0.1313	0.1338	0.1063	0.1608	0.1635	0.1398	0.2922	0.2974	1.2631	7.0401	7.2032
Vietnam	3.831	14.387	14.4947	0.0731	0.1976	0.204	0.044	0.0855	0.0876	0.1171	0.2831	0.2916	3.9482	14.67	14.7863

Source: Author's simulation

Notes: 1) Percentage change from the baseline 2) Scenario 1: the ASEAN and the AFPs (as RCEP), Scenario 2: FTA between the ASEAN and Turkey, Scenario 3: FTA between the ASEAN and Pakistan, Scenario 4: FTA between Turkey and Pakistan, and Scenario 5: FTA between the AFPs, Turkey, and Pakistan 3) Sub-scenario I: tariff elimination among goods, Sub-scenario II: tariff elimination and 10% reduction in NTBs among goods, Sub-scenario II: tariff elimination among goods and 10% reduction in NTBs among goods and services, and 4) ROSEA refers to rest of Southeast Asia countries including Myanmar, Brunei, and Timor Leste.

Table 4: Economic impacts from trade liberalization under various scenarios on export

Scenario	**1**			**2**			**3**			**4**			**5**		
Sub-scenario	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Cambodia	1.6811	2.2587	2.2619	0.0054	0.0354	0.0412	0.038	0.0608	0.0612	0.0433	0.0962	0.1024	1.7244	2.3549	2.3643
Indonesia	4.6218	11.4634	11.5652	0.0903	0.2614	0.2703	0.1137	0.1896	0.1906	0.204	0.451	0.4609	4.8259	11.9144	12.0261
Lao PDR	-0.2983	-1.2786	-1.1608	-0.0006	0.0214	0.0262	0.0087	0.0179	0.0194	0.0081	0.0394	0.0456	-0.2902	-1.2392	-1.1152
Malaysia	2.0501	6.4164	6.4867	0.0239	0.0957	0.1061	0.0937	0.147	0.1475	0.1176	0.2428	0.2536	2.1676	6.6592	6.7403
Philippines	1.5817	7.36	7.3279	0.0097	0.0253	0.0292	0.0185	0.0251	0.0239	0.0282	0.0504	0.053	1.6099	7.4104	7.381
ROSEA	3.2347	8.7661	8.9036	0.0177	0.0485	0.057	0.0335	0.0916	0.0941	0.0513	0.14	0.1511	3.286	8.9062	9.0547
Singapore	0.562	3.5379	3.7393	0.0056	0.0257	0.0303	0.0489	0.0927	0.0928	0.0545	0.1185	0.1231	0.6164	3.6563	3.8624
Thailand	3.0001	7.7881	7.8278	0.0236	0.1077	0.1126	0.0967	0.1475	0.1472	0.1203	0.2551	0.2598	3.1204	8.0432	8.0876
Vietnam	5.8562	7.0978	7.2037	0.0531	0.1242	0.1309	0.0475	0.0701	0.0709	0.1006	0.1943	0.2018	5.9567	7.2922	7.4055

Source: Author's simulation

Notes: 1) Percentage change from the baseline 2) Scenario 1: the ASEAN and the AFPs (as RCEP), Scenario 2: FTA between the ASEAN and Turkey, Scenario 3: FTA between the ASEAN and Pakistan, Scenario 4: FTA between Turkey and Pakistan, and Scenario 5: FTA between the AFPs, Turkey, and Pakistan 3) Sub-scenario I: tariff elimination among goods, Sub-scenario II: tariff elimination and 10% reduction in NTBs among goods, Sub-scenario II: tariff elimination among goods and 10% reduction in NTBs among goods and services, and 4) ROSEA refers to rest of Southeast Asia countries including Myanmar, Brunei, and Timor Leste.

Table 5: Economic impacts from trade liberalization under various scenarios on import

Scenario	**1**			**2**			**3**			**4**			**5**		
Sub-scenario	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Cambodia	2.7712	4.3845	4.5044	0.0048	0.0365	0.0476	0.0405	0.0801	0.0823	0.0453	0.1166	0.1299	2.8165	4.5011	4.6344
Indonesia	5.5543	13.4181	13.5544	0.109	0.322	0.3337	0.1245	0.2055	0.2069	0.2335	0.5275	0.5406	5.7877	13.9456	14.095
Lao PDR	0.1937	-1.179	-1.0443	-0.003	0.0122	0.0175	0.0042	0.0134	0.0152	0.0012	0.0256	0.0327	0.1948	-1.1534	-1.0116
Malaysia	3.4887	9.3313	9.4097	0.019	0.1089	0.1237	0.0999	0.1612	0.1615	0.1189	0.2701	0.2852	3.6076	9.6014	9.6949
Philippines	2.3171	11.4059	11.394	0.0113	0.0326	0.0385	0.0272	0.0379	0.0371	0.0385	0.0704	0.0755	2.3556	11.4763	11.4696
ROSEA	3.9396	11.1172	11.3569	0.0322	0.0787	0.0935	0.0263	0.083	0.0875	0.0585	0.1618	0.181	3.9981	11.2789	11.5379
Singapore	0.6453	4.256	4.263	0.0062	0.0296	0.0329	0.0568	0.1079	0.1061	0.063	0.1376	0.1389	0.7084	4.3936	4.402
Thailand	4.8467	12.0566	12.1215	0.033	0.1466	0.1535	0.1278	0.1946	0.1944	0.1608	0.3412	0.3479	5.0075	12.3978	12.4695
Vietnam	8.9267	14.0849	14.2381	0.0779	0.1908	0.1994	0.0607	0.0912	0.093	0.1386	0.282	0.2924	9.0654	14.3669	14.5305

Source: Author's simulation

Notes: 1) Percentage change from the baseline 2) Scenario 1: the ASEAN and the AFPs (as RCEP), Scenario 2: FTA between the ASEAN and Turkey, Scenario 3: FTA between the ASEAN and Pakistan, Scenario 4: FTA between Turkey and Pakistan, and Scenario 5: FTA between the AFPs, Turkey, and Pakistan 3) Sub-scenario I: tariff elimination among goods, Sub-scenario II: tariff elimination and 10% reduction in NTBs among goods, Sub-scenario II: tariff elimination among goods and 10% reduction in NTBs among goods and services, and 4) ROSEA refers to rest of Southeast Asia countries including Myanmar, Brunei, and Timor Leste.

Table 6: Economic impacts from trade liberalization under various scenarios on regional household income

Scenario	**1**			**2**			**3**			**4**			**5**		
Sub-scenario	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Cambodia	0.1782	3.5357	3.8459	-0.0127	0.015	0.0289	-0.0144	0.0398	0.0444	-0.0271	0.0547	0.0733	0.1511	3.5904	3.9192
Indonesia	2.0238	5.6714	5.7042	0.0574	0.1672	0.1693	0.0901	0.1412	0.1419	0.1475	0.3084	0.3112	2.1713	5.9798	6.0154
Lao PDR	-0.3658	0.5293	0.6275	-0.0079	0.0066	0.0108	-0.0116	-0.012	-0.01	-0.0194	-0.0054	0.0008	-0.3852	0.524	0.6284
Malaysia	0.9668	7.7065	7.8634	0.0672	0.1556	0.1633	0.1095	0.1718	0.1741	0.1768	0.3275	0.3375	1.1436	8.0339	8.2009
Philippines	0.2326	9.6771	9.8217	0.004	0.0257	0.0294	0.0141	0.0251	0.0284	0.0181	0.0508	0.0578	0.2507	9.7279	9.8795
ROSEA	2.2277	7.7495	7.8017	0.0045	0.0229	0.0254	0.0342	0.0849	0.0857	0.0387	0.1079	0.1111	2.2663	7.8574	7.9129
Singapore	0.5214	4.9706	6.8523	0.0041	0.0256	0.051	0.0475	0.0915	0.1035	0.0516	0.1172	0.1545	0.573	5.0878	7.0068
Thailand	1.3327	7.6732	7.8408	0.0359	0.1407	0.1435	0.1133	0.1718	0.1746	0.1493	0.3124	0.3181	1.482	7.9857	8.1589
Vietnam	4.123	15.6415	15.7585	0.0782	0.21	0.2172	0.0462	0.0909	0.0931	0.1245	0.3009	0.3104	4.2475	15.9424	16.0689

Source: Author's simulation

Notes: 1) Percentage change from the baseline 2) Scenario 1: the ASEAN and the AFPs (as RCEP), Scenario 2: FTA between the ASEAN and Turkey, Scenario 3: FTA between the ASEAN and Pakistan, Scenario 4: FTA between Turkey and Pakistan, and Scenario 5: FTA between the AFPs, Turkey, and Pakistan 3) Sub-scenario I: tariff elimination among goods, Sub-scenario II: tariff elimination and 10% reduction in NTBs among goods, Sub-scenario II: tariff elimination among goods and 10% reduction in NTBs among goods and services, and 4) ROSEA refers to rest of Southeast Asia countries including Myanmar, Brunei, and Timor Leste.

According to table 3, the positive impacts occur among almost all ASEAN countries, except Lao PDR. Signing FTA with the AFPs as RCEP, Vietnam is likely to gain the most benefit when FTA partners are agreed to eliminate all tariffs, followed by ROSEA, Indonesia, and Thailand. However, when trade facilitation is equally improved, the economy of Philippines seems to be much improved, compared an economic growth between first and second sub-scenario. Additionally, GDP of Lao PDR is positive when NTBs are reduced which highlights the importance of trade barriers other than tariff. For the impacts of trade liberalization with Turkey, economic growth among all countries seems to be definitely smaller, especially Thailand and Indonesia while Cambodia and Lao PDR are negatively affected. Moreover, the economy overall tends to increase while NTBs are decreased in goods and services. To compare between signing FTA between Turkey and Pakistan, the latter is likely to yield a higher benefit to all ASEAN economies and the direction of gain is similar to the second scenario.

In addition, signing simultaneously with Turkey and Pakistan, Malaysia who already has bilateral FTA with both countries receives the best outcome, followed by Indonesia who has PTA with Pakistan and Thailand who is in the process of joint feasibility study with Turkey. Lastly, supposed in the future the ASEAN signs FTA with AFPs, Turkey, and Pakistan, only elimination of tariff leads to an economic growth, on average, around 1 to 2 percent. However, trade facilitation as a reduction in NTBs is able to increase the rate of growth to around 6 to 7 percent, on average. However, the most obvious thing is that even in the same region with closely similar economic structure, the results among the ASEAN members are vastly different. Under the third sub-scenario, the economy of Vietnam grows around 15 percent while Cambodia and Lao PDR increases by 3.62 and 0.52 percent only, respectively.

The pattern of gain from trade is correspondent to export, import, and regional household income. For RCEP, an export of Vietnam, Indonesia, and Thailand grows around 3 to 5 percent. An average of growth in export is around 2.5 percent in the first sub-scenario. FTA between the ASEAN and Turkey and Pakistan does not generate a huge increase in export as it grows less than 1 percent for almost countries. However, trade facilitation is the main key to increase both export and import. The difference between second and third sub-scenario in every scenario is completely large, for example, under the fifth scenario, an import of Thailand grows twice as a result of an increased trade efficiency. Lastly, the impact on regional household income is consistent with a change in GDP as Vietnam, Philippines, and Malaysia is the leader in positively affected countries.

Among various scenarios, FTA with AFPs as RCEP yields the largest benefit to the ASEAN economies which is consistent with Itakura (2013) and Petri, Plummer, and Zhai (2014). However, the difference of economic gain among ten ASEAN countries should be taken in account because it is stemmed from the different level of development among members. According to United Nations Development Program (UNDP), 2013, Human Development Index (HDI) is much different among the countries in the Southeast Asia. HDI of Singapore is 0.901 which is ranked 9th out of 187 countries while rank of Lao and Myanmar is 139th and 150th, respectively. This gap of development can be larger or narrower after trade liberalization. It is the fact that the leading countries in the ASEAN including Indonesia, Malaysia, Thailand is more prepared to trade agreement with other countries than the rest of this trade bloc, for example, Cambodia and Philippines. A huge difference in basic infrastructure is able to close the door for being the gate of region. Thus, the top priority of the ASEAN countries should be an economic development, not merely growth, among members.

Also, the next challenge of the most vital trade bloc, RCEP, is that not every countries in the Southeast Asia has bilateral FTA with AFPs. For example, Brunei, Cambodia, and Myanmar has no FTA with South Korea and Australia. Population in those countries may really do not know the products from those countries; so, they do not know the way to take advantage of FTA. This is why regional trade agreement is more difficult than two countries' bilateral trade.

4. Conclusion and Future Study

In this study, an economic assessment of the future ASEAN's trade bloc is implemented through GTAP model version 8.0. The findings reveals a positive impacts on many macroeconomic variables, for example, GDP, export, import, and regional household income. Almost all the ASEAN countries are positively affected under various scenario. Due to current economic relationship, FTA between the ten countries of ASEAN and the ASEAN partners including China, Japan, India, South Korea, Australia, and New Zealand yields an economic growth to the ASEAN's economy more than bilateral trade between the ASEAN and Turkey and Pakistan which their economic tie is not relatively close.

Also, in all scenario, an increase in trade facilitation as a reduction of non-tariff barriers (NTBs) generates a dramatic gains from trade more than only tariff removal. After a successful Uruguay round, an applied tariff generally declines for all WTO members. The real challenge is about the proposed rules and regulation which restricts trade flow. There are many cases that country A cannot export its product to country B, even in the same region, due to country B's

unusual non-tariff measure which sometimes creates an unnecessarily additional cost to exporter. Then, after reduction in NTBs, trade can be more flowed where those economies enjoy the concept of comparative advantage.

For future study, other CGE software other than GTAP should be done in order to compare the results of study. Additionally, trade liberalization is still the black box in CGE modeling due to its inability to direct estimation. Thus, other effective methodologies should be implemented, for example, value chain analysis.

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