The Regional Comprehensive Economic Partnership and its Effect on China's Trade

Wu Junyi

Mohamed Aslam

Faculty of Economics and Administration
University of Malaya
50603 Kuala Lumpur
Malaysia
maslam@um.edu.my

Abstract: *The general objective of this paper is to study the impact of the Regional Comprehensive Economic Partnership (RCEP) on international trade. Due to the decline in the world trade and the rise of trade protectionism since 2010 has prompted the Southeast and East Asian countries to develop a larger trade bloc, i.e known as Regional Comprehensive Economic Partnership (RCEP) counter the decline in trade and income growth. In the process of RCEP establishment, ASEAN and China had play a vital to bring all the members in the region together and formed a single bloc to push an economic recovery and to further economic cooperation and development. This paper plan to examine the effect of the RCEP on trade flows on the members and the Gravity Model Method (GM) to be used to examine the subject. Also, the Revealed Comparative Advantage (RCA) index will be calculated mainly to look the performance of trade growth across members. Based on the GM its seems that China significantly gain from the RCEP, i.e earn a positive effect from trade.*

Key Words: *RCEP, Gravity Model, Free Trade Agreement, China, Trade*

1. Introduction

At present, 90% of the world's economies are facing slowdown in economic growth. The slowing down of trade growth somehow is cracking and endanger the world economy. Moreover, the multilateral liberalization of WTO has lost its momentum in pushing and finalizing the Doha Agenda Development or Doha Round. Therefore the establishment of Regional Comprehensive Economic Partnership **(**RCEP) is an important step of regional economic integration in the Southeast, East and the Pacific region, which is bound to affect the future development pattern of the region economy and even the global economy, perhaps.

With the growth and development of the Southeast, East Asia and Asia Pacific economies, the economic interdependence among countries has gradually increased. The establishment of an unified free trade market such as RCEP is an essential move and to develop an effective resource allocation in the region. An economic integration such as type for the region has been suggested by many scholars before. As stated by Wilson (2015) that the process of economic integration in the Asia region should be developed along the RCEP. He also indicated that the countries among the region needed to choose based on their own political and economic benefits.

Since 1990s many countries in the world involved in establishment of regional economic integration, i.e free trade area (FTA). From 1948 to 1994, there were 124 RTAs reported to the General Agreement on Tariffs and Trade (GATT). However, since 1995 there have been 474 RTAs reported to WTO in which 257 in form of FTA. After 2008, the proportion of newly established RTAs of China, Japan, Australia, ASEAN, New Zealand and the Republic of Korea, the proportion of trade of RTAs of the total trade 86.67%, 70.59%, 57.14%, 100%, 58.33%, and 72.22% are respectively. These data show that RCEP member countries have taken positive actions to achieve wider and deeper solidarity and cooperation by creating a large regional trade areas such as RCEP.

2. A Short Review of RCEP Development

The RCEP actually is a reconcilation of the East Asian Free Trade Agreement (EAFTA) that included ASEAN, China, Japan and South Korea and the Comprehensive Economic Partnership (CEP) comprised of Australia, India and New Zealand (Mohamed Aslam, 2015). The proposed RCEP is to build a deeper economic cooperation than the existing FTA agreements. The ASEAN+6 (RCEP) was suggested by ASEAN at the ASEAN leaders summit in Bali, Indonesia in November 2011. Later the group renamed as Regional Comprehensive Economic Partnership (RCEP). At the East Asia Summit on November 20, 2012 in Cambodia, the leaders of the 16 participating countries endorsed and launched the RCEP framework. Initially, the RCEP is comprises f ten Member States of the Association of Southeast Asian Nations (ASEAN) (Malaysia, Brunei Darussalam, the Kingdom of Cambodia, the Republic of Indonesia, the Lao People's Democratic Republic ("Lao PDR"), the Union of Myanmar, the Republic of the Philippines, the Republic of Singapore, the Kingdom of Thailand and the Socialist Republic of Viet Nam) plus China, Japan, the Republic of Korea, Australia and New Zealand and India. However, in 2018 India pull out from RCEP. In May 2013, participating countries began the negotiations and concluded the negotiation in November 2019 and signed the agreement on 15 November 2020. The negotiation took about 8 years to be concluded.

On November 4, 2019, the 3rd Regional Comprehensive Economic Partnership (RCEP) Summit was held in Bangkok, Thailand. The main leaders of Member States reviewed the Joint Declaration on the Launch of Negotiation for the RCEP issued in Phnom Penh, Cambodia in 2012, as well as the Guiding Principles and Objectives for Negotiating the RCEP that they endorsed. They committed to achieving a modern, comprehensive, high-quality, and mutually economic partnership agreement. The 15 RCEP Participating Countries have concluded all 20 chapters of text-based negotiations and essentially all their market access issues, and tasked legal scrubbing by them to commence for signing the agreement in 2020. RCEP Member States will work together to resolve these outstanding issues in a mutually satisfactory way. The 29th RCEP Trade Negotiating Committee Meeting was held via video conference on 20, 22, and 24 April 2020, the 15 RCEP Participating Countries also agreed to step up cooperation and accelerate global efforts to enable a swift and resilient economic recovery from the crisis brought about by the COVID-19. Based on the agreement, the RCEP is a comprehensive agreement. In nutschell, the content of the agreement, RCEP was adopted many parts of Doha Round and Trans-Pacific Parnership

Agreement (TPPA) agreement which are includes rules governing such topics as market access for goods and services, financial services, intellectual property, e-commerce and digital trade, and investment.

The RCEP is cover a large part of the global economy.The RCEP is considered a huge free trade area after EU and accounted for about half of the world's population and about 30% of the world's trade volume. Even though India withdrew from RCEP, the total market size of RCEP remains the largest one among the RTAs around the world. Considering the economic volume, China, Japan, and the Republic of Korea are the second, third, and 11th largest economies in the world respectively. The total gross domestic product (GDP) of these three economies accounts for approximately 20% of the world and more than 70% of Asia. Under such an economic structure, India's withdrawal will reduce the total population of RCEP, but will not have a further impact on the total trade volume of RCEP.

In 2018, the population of 15 member countries was 2.29 billion, and the global population is 7.63 billion (Table 1). Their total GDP volume was to USD 24.93 trillion, meanwhile, the total global GDP was USD85.69 trillion. The import and export volume of merchandise and commercial services of member countries was USD13.05 trillion and the the world was USD50.73 trillion. In addition, the volume of Foreign Direct Investment (FDI) was USD0.37 trillion, and the volume of world FDI was USD1.30 trillion. These indicators indicated that the RCEP basically accounted for approximately 30% of the world economy.

Table 1: Major Economic Data of RCEP Member Countries in 2018

	World	ASEAN	China	Japan	Korea	Australia	New Zealand
Population (Mil. people)	7,631.09	654.03	1,427.65	127.20	51.17	24.90	4.74
GDP (Tril. USD)	85.69	2.97	13.61	4.97	1.72	1.45	0.21
Total merchandise exports and imports (Tril. USD)	39.28	2.88	4.62	1.49	1.14	0.49	0.08
Total commercial services exports and imports (Tril. USD)	11.45	0.78	0.79	0.39	0.22	0.14	0.03

FDI (Bil. USD)	1,297.15	148.65	139.04	9.86	14.48	60.44	1.40

Source: World Trade Organization and World Bank

As the largest and most important FTA in the Asia region, RCEP will greatly enhance the facilitation of trade and investment, so that the Asian regional value chain will become more solid and stronger. RCEP emphasizes more on following the rules of the multilateral trade system with WTO as the core, focusing on the interests of developing countries, and paying attention to the balance between flexibility and high-quality. Generally, the negotiation field and issues of RCEP are still dominated by traditional trade issues. For example, RCEP stipulates that its tariff exemption level should be at least 95%, which is much higher than the opening level of WTO members, but RCEP the offered tariff concession still lower than Comprehensive and Progressive Economic Agreement for Trans-Pacific Partnership (CPTPP) (the bloc was renamed after the former US President Mr Trump pull out from the TPPA in 2017). With the improvement of the requirements for high standard international trade rules on 2010 onwards years, many new topics have been added to the RCEP negotiation document, in which covers 18 fields, including goods trade, service trade, financial services, telecommunication service industry, etc. Especially in the aspect of an investment, RCEP launched investment access negotiations by establishing the negative list system and reflected its positive actions in docking high-quality international trade rules. It is not only beneficial to greatly reduce the market barriers in the region, improve the business environment, but also promote the efficient and flexible flow of regional elements.

3. China and RCEP. A Synopsis

Since the mid-1990s, China has become a major player and promoter of regional economic and security cooperation in East Asia. China’s pursuit and exploration of economic development have never stopped. China has joined ASEAN + 3 (APT), the Shanghai Cooperation Organization (SCO), the Asia-Pacific Economic Cooperation (APEC), ASEAN Regional Forum (ARF), and other regional economic organizations. China's economic and trade strategies are gradually shifting from unilateralism to multilateralism (Kolmas, 2016).

The Chinese government pointed out in the report of the Third Plenum Report that the development of a new open mechanism is one of the important reforms. Three open policies were mentioned: one is to accelerate the negotiation of free trade agreements, and the other two are to provide a broader market access mechanism to foreign investors. Vigorously open up the internal field. This series of policy reforms, including the administrative examination and approval system reform, the domestic manufacturing industry reform, and the deepening of the opening and reform of the service sectors (He & Yang, 2015). China's free trade strategy is characterized by flexibility and applicability. China's design of free trade agreements can address the various preferences of its partners, resulting in substantially highly differentiated agreements. China is a very tolerant and helpful free trading partner that can satisfy partners' preferences in terms of goods, services, and intellectual property issues (Leifur, 2014).

However, in recent years, the growth rate of GDP and international trade has dropped significantly. The growth rate of the imports and exports in the international trade market had slowed down. In order to better develop the economic construction, China's government has turned its domestic economic strategy into regional economic integration. Focusing on the development of the "Belt and Road" initiative and the RCEP actively promoted by the Chinese government. The establishment of China-ASEAN FTA shows that the Chinese governmentit has a high strategic vision for regional economic integration.

It can be observed that China, as the second-largest economy in the world, has a large proportion of foreign trade volume and FDI in the year of 2018, which is in a large proportion of the world economic level. It also coincides with the reduction of domestic consumption demand and the expansion demand for international trade. It has led to the demands of the government for regional trade agreements. The withdrawal of the United States from the TPP in 2018 has led to a regional trade volume decilnes, and the proposed RCEP hopefully will compensate the trade losses due to the US trade policy.

4. Literature review

The international debate on regionalism and multilateralism can be divided into two categories: Krugman (1991) used the Comparative Static Analysis method to analyze the incentives of FTA to the multilateral trading system and compatibility issues. Bhagwati (1993) studied the impact of FTA on the multilateral trading system through static and dynamic paths. The two methods were that FTA is a "stumbling block" to the liberalization of multilateral trade, and the strengthening of regionalism has hindered the multilateral trade system. Krishna (1998) believed that the development of FTA is seriously against the multilateral trading system. Both Ethier (1998) and Schiff (2002) believed that overlapping FTA was not conducive to the development of the multilateral trading system. Since the 1990s, FTA has developed rapidly in the world, which has become a major trend in the development of international trade. However, support in the region trade has turned multilateral trade arrangements to RTAs, by the historical event of the Asian Financial Crisis in 1997. In addition to the large-scale economic turmoil in Asia, the crisis also revived the demand for regional economic cooperation (Lee & Park, 2005).

Tinbergen (1962) published the gravity equation, which was an econometric study using for international interaction trade flows. He mainly studied evaluating the influence of FTA dummy variables. The results of his research showed that the "average treatment effects" of free trade agreements on trade flows are insignificant economically. Tinbergen found that countries by joining the British Commonwealth (Benelux FTA) would only increase trade flows by 5% (4%). However since Tinbergen work, there were quite number of papers looking on FTA and its effect, and the conclusions of scholars of various papers are mixed. For instance, Abrams (1980), Brada and Méndez (1985)and Aitken (1973), found that the European Community (EC) had a significant economic and statistical influence on trade flows between member countries, however, Frankel, Stein, and Wei (1995) and Bergstrand (1985) found that the influence was not significant. Frankel (1997) pointed out that the positive influence from Mercosur was significant, the influence from the Andean Pact was not significant, and the negative influence from the EC was significant.

A better form of RTA is to promote deeper integration by eliminating non-tariff trade barriers, service trade barriers, and investment liberalization. From the suggestions of Lamy (2002), regionalism benefited to developing countries in imperfect competition market with conditions, since the non-tariff barriers were removed for trade. Laird (1999) believes that deeper integration, including the abolition of complex rules of origin, would help alleviate the problem of "Spaghetti Bowl Phenomenon". Between multilateral trade arrangements and RTAs, it is clear from the study of Lawrence (2006), which deeper integration alleviated the potential causes of conflicts. Especially, investment liberalization and trade liberalization had enhanced the advantages of "New Regionalism". Ethier (1998) and Burfisher, Robinson and Thierfelder (2004) pointed out that, this advantage was more obvious in small developing countries. By the reduction of the trade costs, including the existing memberships and new entrants to RTAs, trade facilitation accelerated the transformation of trade liberalization.

At present, scholars are still in the initial stage of evaluating the economic effect of RCEP, and there is relatively little literature about the influences of RCEP. Petri, Plummer, and Zhai (2011) used the CGE model to analyze quantitatively the influence of "ASEAN 10 + 3", TPPA, RCEP, and FTAAP on economic welfare effect. In the conclusion, for China, joining TPPA would lead to the decline of economic welfare and achieving negative effects, but accession to other economic cooperation mechanisms would stimulate the rapid growth of trade in varying degrees and achieve positive effects. At the same time, the Republic of Korea, Australia, Japan, and New Zealand could get different degrees of economic benefits in the above economic cooperation mechanisms. Lee and Itakura (2013) used the CGE model to examine the optimal FTA corporation, the welfare, and industrial structure of each country in the Asia Pacific region. From the results, the combination of RCEP could bring the greatest economic benefits to member countries, and the industrial structure of each country would further converge. Cheong and Tongzon (2013) quantitatively evaluated the net economic benefits of RCEP after eliminating the superposition effect by using the Dynamic CGE model, meanwhile analyzed their political and economic feasibility.

Fukunaga and Isono (2013) simply compared the terms of the five ASEAN FTA agreements and found that, in the 5 FTAs, there were lots of different views in many fields currently. At the same time, they further pointed out that the "Spaghetti Bowl Effect" caused by different rules of origin of goods. Petri, Plummer, and Zhai (2012) studied the specific content of multilateral FTA based on the guidance agreement of RCEP, furthermore, he suggested that the RCEP guidance agreement had not yet put forward measures to face the "Spaghetti Bowl Effect". However, there are many issues in the negotiation process of RCEP, some academic scholars have carried out relevant research on RCEP and put forward their own views and prospects for the future. Hamanaka (2014) proposed a method to solve the "Spaghetti Bowl Effect" in the Asia Pacific Free Trade Area, which was that integrating the signed FTAs, updating them in time, eliminating the invalid contents, and keeping pace with the times. Bergsten, Gill, and Lardy (2006) proposed that the establishment of the Asia Pacific Free Trade Area could inject vitality into the realization of relevant objectives and accelerate the establishment and development of the multilateral trading system.

Kawai and Wignaraja (2013) pointed out that the existing "ASEAN + 3 (China, Japan and Korea), the FTA utilization rate is generally in a lower level, especially for Small and Medium-sized Enterprises (SMEs), so how to integrate the whole complex rules of origin efficiently and reduce the utilization cost was the key direction of RCEP negotiation in the future (also look Faiz and Aslam, 2018 in the case of ASEAN Free Trade Area). Urata (2013) compared and analyzed the differences in rules of origin between ASEAN and FTA signed by participating countries in terms of overall terms and found that countries are unified to a certain extent. Then it was not divorced from reality to integrate in terms of technology, but it was difficult to promote political mutual trust among major countries in reality. Fukunaga (2013) believed that RCEP could not only improve the degree of tariff and non-tariff liberalization in the region on the basis of ASEAN + 1 but also reduce the internal "Spaghetti Bowl Effect", which played a positive role in strengthening the central position of ASEAN. He also said that ASEAN should not only play a central role in RCEP from the perspective of the political balance of major countries but also strengthen the construction of its own ASEAN Economic Community in terms of service trade liberalization, trade facilitation, non-tariff barrier reduction, and other aspects, and make a demonstration for the future construction of RCEP from the perspective of economic cooperation. Das et al. (2016) pointed out that the FTA signed between ASEAN and Australia and New Zealand is the best one in terms of depth and breadth, so it should be a benchmark for RCEP negotiation in the future. Kimura and Chen (2016) planned a "Three-Step" strategy from simple to complex for the future of RCEP, for instance, from tariff reduction to improving FTA utilization rate, and finally achieving to regional cooperation in infrastructure construction of various countries.

Inkyo (2002) and Tomoyoshi (2002) studied the impact of the Japan-Korea Free Trade Zone on the overall economy of the two countries and the trade balance of various industries. The former simulation proves that after the establishment of the Free Trade Zone, the national welfare of Japan and South Korea will increase significantly, and the industrial structure of South Korea will not be destroyed. The latter is based on the perspective of the sector. The analysis conclusion shows that after the establishment of the free trade zone, the largest trade balance improved in Japan was in the machinery and equipment sector, followed by the metal products, other manufactured goods, and electronic equipment sectors, while other sectors deteriorated.

DeRosa (1995) simulated the impact of the ASEAN Free Trade Area (AFTA) under conditions of full competition, differentiated products, scale returns, and intra-industry trade. The results showed that the establishment of AFTA improved the welfare of members in the region. Among them, Singapore's welfare improvement is most obvious. Levi (2006) study concluded that AFTA has had a negative impact on China's economic welfare while improving regional welfare. Walmsley (2006) used the recursive dynamic method based on the GTAP model to estimate the establishment of Japan and Singapore. The dynamic effect after the free trade zone is that the establishment of the FTA has a longer-term bilateral return than the rest of the world.

The advantages of the GTAP model in regional economic integration analysis. Over the years, the GTAP model has become one of the most respected models in the global trade analysis model. There are three main reasons: First, it contains and sorts out a large amount of data such as input, output, and tariffs of various countries, saving researchers a lot of time; Second, compared with

general econometric methods, GTAP is an ex-ante analysis method that can comprehensively consider various economic policy variables. It can examine the effects of the simultaneous implementation of various policies by setting policy variables for each department in the economic system. This is lacking in other research methods; Third, the GTAP model performs very well on quantitative analysis in terms of providing more accurate reference recommendations for policymakers selections and decisions.

The GTAP model also has some existing weaknesses. First, it concludes that the direction of the change in the research objectives is not appropriate for comparison with actual statistics and therefore it only has a reference meaning. Second, the GTAP model itself assumes that the market is fully competitive, fully employed, and CRS. This is inconsistent with reality. In addition, when using the GTAP model for general equilibrium analysis, it is not considered that the growth of a country's economy may come from factors such as productivity increase. Finally, the GTAP database has a long update cycle. Since its development in 1993, a total of ninth versions of the database have been developed, which are updated every two years.

Guilhot (2010) substituted panel data (1985-2007) into the gravity model to analyze export trade flows between bilateral countries. The selected data includes China, the Republic of Korea, ASEAN, and other 22 trading partners. The paper pointed out that in response to the assessment of the ASEAN Free Trade Area, AKFTA and ACFTA have a deep influence on the overall trade structure of East Asia, especially for promoting exports. However, the impact of the Free Trade Zone’s imports on East Asia was identified as negative.

Zhou (2007) applied a gravity model to indicate the impact of trade between China and ASEAN. In his estimation analysis, a WTO dummy variable was added to predict whether there is a potential endogeneity problem. According to his two-stage estimation method, the results of his paper are endogeneity. The outcome of the data analysis shows that the coefficient value of the WTO dummy variable is positive, indicating that WTO members have a positive impact on bilateral trade between China and ASEAN. Yang and Martinez-Zarzoso (2014) examined a gravity model to simulate the trade effects and trade flows of ACFTA. The experimental results show that the reduction of tariff barriers has greatly promoted the flow of export trade between China and ASEAN member countries. Moreover, the paper shows that the trade creation effects happened in the exports of manufacturing and chemical goods.

5. The Gravity Model

Tinbergen (1962) was the first scholar to propose the gravity model to study bilateral trade flows between nations. Pöyhönen (1963) also used the gravity model to explain trade flows between Germany and trade partners . Tinbergen and Poyhonen pointed out that the scale of bilateral trade flows between the two countries is proportional to their respective economic aggregates, and inversely proportional to the distance between them. Among them, the total economic output of the exporting country reflects the potential supply capacity, and the total economic volume of the importing country reflects the potential demand capacity. The distance between the two parties (transportation cost) constitutes a resistance factor for trade between the

two countries. In addition, Linnemann (1966) added demographic variables into the gravity model. In order to test the influence of policy, history, culture, and other factors on trade flows, economists added preferential trade agreements, trade restriction measures, colonial relations, and common language to the gravity model.

The basic equation of gravity model is as follow:

$$X_{ij} = b_0 Y_i^{b_1} Y_j^{b_2} D_{ij}^{b_3}$$

Where, X_{ij} denotes the export volume from country i to j. Y_i and Y_j are the level of GDP of in country i and j. Meanwhile, D_{ij} is the geographical distance between the country i and country j. When the scholars calculated the model, they usually take the above model into logarithm and transfer them into the linear model. b_0, b_1, b_2, and b_3 are the coefficients,

$$LnX_{ij} = b_0 + b_1 LnY_i + b_2 LnY_j + b_3 LnD_{ij}$$

Then Linnemann (1966) added the population independent variable to reflect the role of scale economy. In order to analyze the influence of regional economic organizations on trade, Aitken (1973), Brada and Méndez (1985) and other scholars added dummy variables to the gravity model to evidence the trade effect of FTA.

The Ordinary Least Squares (OLS) method is used to estimate the model based on the extension of the gravity model. Generally, panel data chooses fixed effects regression model or random effects regression model for evaluating the regression analysis. However, most of these two models are applied in large-scale samples, which is not significant for small-scale samples. As for independent variables such as $LnDIST_{cj}$ is a fixed variable without changing by period, LnY_C_{ct} and $LnPOP\_C_{ct}$ are fixed variables without changing by individual cross-section. If the model carries out with the fixed effects regression model, these factors need to be deleted in the gravity model, because of the greatly disturb with the regression results. In addition, this paper estimate all the 3 models as suggested below with the random effects regression model and had achieved the Chi-Square is 0.00 and the P-value is 1.00 under the Hausman Test. Although the test result accepts the null hypothesis, the variance is not effective by the small-scale samples.

Gravity Model and Trade Effect

Usually, to analyse the impact on the international trade flows, the gravity model adopts the "Multi-Country model", which including $N \times (N-1)$ samples among the bilateral trade volume of *N* countries. Nevertheless, the objective of this paper is to examine the impact of China's FTAs with RCEP member countries from the perspective of one country. So, it adopts the "single country model", which including $N \times 1$ samples. The "Multi-Country model" is generally considered to be symmetrical (Sanso et al., 1993), which only needs to analyze the import or export alone, while the "single country model" is asymmetric, which needs to analyze the import and export separately.

To evaluate the trade effect of FTAs between China and RCEP member countries, the period of collecting the panel data is from 2000 to 2018. In addition, there is a certain inertia in trade between countries. In order to reveal more clearly about how the establishment of FTAs affects the level of regional trade, the panel data of 13 comparative countries are added. In this sector, based on the equation of Matyas et al. (1997) analyzed the volume of exports in the APEC countries for the period 1982–1994, The models have been adjusted to match the research objectives.

MODEL 1

$$LnX_{jt} = \alpha_0 + \alpha_1 LnY\_C_{ct} + \alpha_2 LnY\_J_{jt} + \alpha_3 LnDIST_{cj} + \alpha_4 LnPOP\_C_{ct} + \alpha_5 LnPOP\_J_{jt} + \alpha_6 FTA1_t + \alpha_7 FTA2_t + \alpha_8 FTA3_t + \alpha_9 FTA4_t + u_{cjt}$$

MODEL 2

$$LnM_{jt} = \beta_0 + \beta_1 LnY\_C_{ct} + \beta_2 LnY\_J_{jt} + \beta_3 LnDIST_{cj} + \beta_4 LnPOP\_C_{ct} + \beta_5 LnPOP\_J_{jt} + \beta_6 FTA_{1t} + \beta_7 FTA_{2t} + \beta_8 FTA_{3t} + \beta_9 FTA_{4t} + \varepsilon_{cjt}$$

MODEL 3

$$LnT_{cjt} = \eta_0 + \eta_1 LnY\_C_{ct} + \eta_2 LnY\_J_{jt} + \eta_3 LnDIST_{cj} + \eta_4 LnPOP\_C_{ct} + \eta_5 LnPOP\_J_{jt} + \eta_6 FTA1_t + \eta_7 FTA2_t + \eta_8 FTA3_t + \eta_9 FTA4_t + \lambda_{cjt}$$

Where:

$Ln =$ variables in natural logs;

$X_{jt} =$ the bilateral exports from China to country j in the year t;

$M_{jt} =$ the bilateral imports from country j to China in the year t;

$T_{cjt} =$ the bilateral exports and imports between country j and China in the year t;

$Y\_C_{ct} =$ the nominal GDP of China in the year t;

$Y\_J_{jt} =$ the nominal GDP of country j in the year t;

$DIST_{cj} =$ the distance between the capital cities (or economic centers) of China and country j;

$POP\_C_{ct} =$ the population of China in the year t;

$POP\_J_{jt} =$ the population of country j in the year t;

$FTA1_t =$ dummy variable, setting value 1 for country j which had already signed ASEAN-China FTA in the year t; otherwise 0;

$FTA2_t =$ dummy variable, setting value 1 for country j which had already signed Australia-China FTA in the year t; otherwise 0;

$FTA3_t =$ dummy variable, setting value 1 for country j which had already signed China-Korea, Republic of FTA in the year t; otherwise 0;

$FTA4_t =$ dummy variable, setting value 1 for country j which had already signed China-New Zealand FTA in the year t; otherwise 0;

$\alpha_0, \dots, \alpha_9, \ \beta_0, \dots, \beta_9, \eta_0, \dots, \beta_9$ are the parameters;

$u_{cjt}, \varepsilon_{cjt}, \lambda_{cjt} =$ the distributed error terms.

The result means that there is a significant effect of LnY_C_{ct}, LnY_J_{jt}, $LnDIST_{cj}$, $LnPOP\_C_{ct}$, $LnPOP\_J_{jt}$, $FTA1_t$, $FTA2_t$, $FTA3_t$, and $FTA4_t$. The relationships among them are expected: LnY_C_{ct} denotes a positive sign. It means that the greater the GDP of China, the greater the trade flows.

LnY_J_{jt} denotes a positive sign. It means that the greater the GDP of other partners, the greater the trade flows.
$LnDIST_{cj}$ denotes a negative sign. It means that the farther distance, the lower the trade flows.
$LnPOP\_C_{ct}$, $LnPOP\_J_{jt}$ denotes an uncertainty sign.
$FTA1_t$ denotes a positive sign. It means that China's bilateral trade volumes expand through ASEAN-China FTA membership.
$FTA2_t$ denotes a positive sign. It means that China's bilateral trade volumes expand through Australia-China FTA membership.
$FTA3_t$ denotes a positive sign. It means that China's bilateral trade volumes expand through China-Korea, Republic of FTA membership.
$FTA4_t$ denotes a positive sign. It means that China's bilateral trade volumes expand through China-New Zealand FTA membership.

Revealed Comparative Advantage Index

Balassa (1965) proposed the Revealed Comparative Advantage index (RCA index) in 1965. The RCA index can be used to determine which industries of a country are more competitive in export. Economists believe that RCA is the basis for interpreting trade relations of inter-industries. In the following model, it is indicated as a relevant price assessment with absenting the trade volume, because it actually measures the comparative advantage indirectly. The RCA index is shown by comparing the country's bilateral trade volume with the world average level to determine the economic sector with comparative advantage.

Formula for RCA as follows.

$$RCA_{ij} = \frac{X_{ij}/X_i}{X_{wj}/X_w}$$

Where
X_{ij} denotes the volume of exports of product j by country i; X_i denotes the total volume of exports by country i; X_{wj} denotes the volume of exports of product j by the world; X_w denotes the total volume of exports by the world.

The RCA index is defined as the ratio of two shares. The numerator is the share of the export value of a country's specific commodity of the total export value. The denominator is the share of the same commodity in world trade of the world's total exports. The range of values for RCA is between 0 and +∞. Generally, when the RCA index is greater than 2.5, it indicates that the specific industry obtains extremely strong export competitiveness. When the RCA index is between 2.5 and 1.25, it indicates that the specific industry obtains strong export competitiveness. When the RCA index is between 1.25 and 0.8, it indicates that the specific industry obtains moderate export competitiveness. When the RCA index is less than 0.8, it indicates that the specific industry obtains weak export competitiveness. In addition, the index is also affected by other factors, such as trade barriers.

6. Empirical results

This section mainly presents the results of how China's value of exports (X), imports (M), total trade volume (T), GDP (Y_C) and population (POP_C), the GDP (Y_J) and population (POP_J) of partner countries, and the distance (DIST) between the countries. The sample period of this study is from 2000 to 2018 and total observation is 342 observations.

Variables	Mean	Median	Maximum	Minimum	Std. Dev.
X	5,901,481.12	2,830,708.90	47,842,317.80	41,619.10	8,694,175.10
M	4,686,400.94	2,117,285.00	26,862,836.40	6,408.70	5,612,671.67
T	10,587,882.06	5,556,339.24	63,351,941.30	80,485.00	12,656,170.33
Y_C	6,105,604.51	5,101,690.45	13,608,151.87	1,211,331.15	4,121,038.91
Y_J	2,257,522.45	1,388,101.77	20,681,353.90	6,720.49	3,430,831.03
POP_C	1,360,829.34	1,361,169.41	1,427,647.79	1,290,550.77	41,819.62
POP_J	168,626.99	60,288.23	1,352,642.28	427.77	290,145.29
DIST	6,892.57	7,749.02	16,948.04	955.65	4,332.44

Note: The number of each variable is 342.

Table 2: Descriptive Statistics of Main Variables

The gaps between the value of the minimum and mean in trade is approximately 100 times for export, and 1,000 times for import (Table 2). Looking at the table it indicates the China strength in the economy, the mean of China's GDP is almost 4 times greater than other countries, even though including the USA and Japan. Trend of the population is similar to the level of GDP, the average is almost 7 times greater than other partners..

This paper utilized the Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) test to check the stationarity of all the variables used in the regression. Table 3 presents the results of the ADF test and PP test for all variables at the level and first difference, respectively. The dummy variables are qualitative variables and the distance variable does not change with the period, so there is no need for them to carry out the unit root test. The null hypothesis of a unit root is all significant at the first test except for LnY_C. After testing with the first differences, the critical values are still not significant of the variable of LnY_C. This indicates all the series are stationary except LnY_C.

Variables	ADF - Test		PP - Test	
	Level	First difference	Level	First difference
LnX	77.96***	-	119.54***	-
LnM	63.62***	-	139.63***	-

LnT	86.43***	-	150.34***	-
LnY_C	25.52	42.99	16.5	43.38
LnY_J	51.43**	-	57.01**	-
LnPOP_C	111.26***	-	433.90***	-
LnPOP_J	398.35***	-	573.73***	-

Note: ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 3: Unit Root Test Results

The RCEP and Trade Effects.

The results of the regression are reported in Table 4. There are 3 models in the table. Based on the results, there are some insignificant independent variables in model A and B. Although some of the dummy variables are insignificant, but we still keeps them for studying the effect of FTAs on trade..

In Model 1, the variables of LnY_C and FTA4 are significant at the level of 5% and 10%, respectively. The variables of China's population (LnPOP_C), FTA2, and FTA3 are not significant. Other variables are all significant at 1%. Looking at the B1, each variable's is significant at 1%, except FTA4 at 10%. Unexpectedly, the dummy variables of FTA1 and FTA2 are insignificant in both A1 and B1. The value of R-square in A1 is the same as B1, while the values of F-statistics are 130.040 and 146.661 for A1 and B1, respectively.

In model 2, the variables of LnY_C and FTA2 are significant at the level of 5%. The independent variables GDP of countries (LnPOP_C) and FTA3 are insignificant. Other variables in model 2 are the significance level at 1%. Under the Model 2, equation A2 and B2, FTA3 show insignificant results. The values of R-square are 0.714 and 0.713, while the values of F-statistics are 92.064 and 103.407 in A2 and B2, respectively.

In model 3 of total trade among country-pairs, the variable of LnY_C is significant at the level of 5%. The population variables (LnPOP_C and LnPOP_J), FTA2, FTA3 and FTA4 fail to show a significant results. In the equation B3, after omitting the population variables, all of the variables significance except for FTA2, FTA3 and FTA4. The values of R-square are 0.788 and 0.787 for equation A3 and B3, the values of F-statistics are 136.751 and 176.540. Generally, these values of R-square implied that the gravity model 1 , 2 and 3 fit the data well.

As mentioned above, the extension B models (B1, B2 and B3) fit the data better than the A models (A1, A2 and A3). The GDP variables and the distance variables are significant. Furthermore, the estimated coefficients are statistically significant with the expected signs. The population variables are against our expectations. Firstly, the China's population is insignificant to the regression model which show the opposite signs. Secondly, the partners' population are

negative correlated with exports in model 1 but show a positive correlation in model 2 if imports included , while if include total trade the coeffecient turned into as shown in model 3.

Related to literature, the variable FTA, FTA1 shows significant critical values. The coefficients are 1.129, 0.818 and 0.898 in model 1, model 2 and model 3, respectively.

Independent Variables	**MODEL 1_LnX**		**MODEL 2_LnM**		**MODEL 3_LnT**	
	A1	**B1**	**A2**	**B2**	**A3**	**B3**
C	45.618 (0.378)	1.927** (2.213)	164.630 (1.057)	1.690 (1.499)	73.404 (0.624)	3.237*** (3.846)
LnY_C	0.735** (2.200)	0.615*** (11.703)	0.881** (2.041)	0.435*** (6.396)	0.779** (2.392)	0.592*** (11.938)
LnY_J	0.780*** (17.465)	0.781*** (17.545)	0.731*** (12.663)	0.735*** (12.752)	0.73*** (16.742)	0.719*** (25.100)
LnPOP_C	-3.223 (-0.362)	-	-12.020 (-1.046)	-	-5.173 (-0.596)	-
LnPOP_J	-0.099*** (-2.635)	-0.100*** (-2.660)	0.176*** (3.605)	0.173*** (3.551)	-0.013 (-0.354)	-
LnDIST	-0.749*** (-14.148)	-0.749*** (-14.176)	-0.702*** (-10.270)	-0.704*** (-10.290)	-0.805*** (-15.589)	-0.807*** (-15.700)
FTA1	1.126*** (5.081)	1.129*** (5.106)	0.806*** (2.814)	0.818*** (2.857)	0.922*** (4.264)	0.898*** (4.437)
FTA2	0.918 (0.176)	0.066 (0.12)	1.645** (2.442)	1.545** (2.322)	0.745 (1.465)	0.714 (1.423)
FTA3	-0.766 (-1.451)	-0.791 (-1.516)	0.474 (0.696)	0.378 (0.559)	-0.444 (-0.863)	-0.486 (-0.956)
FTA4	-0.500* (-1.909)	-0.499* (-1.909)	0.957*** (2.828)	0.960*** （2.835）	-0.031 （-0.122）	-0.020 (-0.079)
R-squ.	0.779	0.779	0.714	0.713	0.788	0.787
Adj. R-squ.	0.773	0.774	0.706	0.706	0.782	0.783
F-sta.	130.040	146.661	92.064	103.407	136.751	176.540
Prob(F-sta.)	0.000	0.000	0.000	0.000	0.000	0.000

Note: ***, ** and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 4: Panel Data Regression Results

FTA4 show a positive coefficient in import model 2 and a negative coefficient in model 1. FTA2 indicates a positive coefficient and significance in model 2. Whereas, the FTA3's coefficients are insignificant in all models. To conclude the impact of RCEP on trade; variable FTA1 depicts a positive outcome while variable FTA4 show a negative outcome on China's export ; FTA1, FTA2 and FTA4 show a positive impacts on China's import. Focusing on the total bilateral trade among RCEP members, in model 3, the variable FTA1 the only one shows the positive impact

		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
2018	**ASEAN**	1.08	0.39	1.11	0.80	5.96	0.73	0.70	1.13	1.35	0.57
2017		1.06	0.44	1.14	0.86	6.19	0.68	0.67	1.13	1.30	0.58
2016		1.07	0.42	1.11	0.81	6.14	0.70	0.67	1.13	1.30	0.60
2015		1.08	0.45	1.09	0.88	6.75	0.72	0.68	1.13	1.21	0.65
2014		1.09	0.43	1.01	0.83	7.34	0.78	0.67	1.13	1.18	0.87
2018	**Australia**	1.66	1.18	7.53	2.23	0.32	0.27	0.39	0.12	0.18	3.76
2017		1.82	1.19	8.10	2.28	0.32	0.25	0.40	0.13	0.19	3.23
2016		1.92	1.21	9.14	2.89	0.52	0.29	0.42	0.16	0.20	1.88
2015		2.29	1.22	9.11	2.51	0.55	0.26	0.47	0.18	0.20	1.71
2014		1.89	1.03	9.75	1.76	0.51	0.25	0.46	0.16	0.17	1.62
2018	**China**	0.43	0.18	0.19	0.18	0.10	0.58	1.33	1.33	1.92	0.04
2017		0.43	0.18	0.17	0.17	0.07	0.55	1.33	1.30	1.99	0.04
2016		0.44	0.19	0.18	0.14	0.05	0.51	1.35	1.26	1.99	0.05
2015		0.41	0.18	0.18	0.12	0.06	0.51	1.37	1.27	2.00	0.02
2014		0.41	0.16	0.18	0.10	0.06	0.53	1.38	1.36	2.27	0.02
2018	**Japan**	0.12	0.16	0.39	0.17	0.07	0.93	0.92	1.60	0.68	1.14
2017		0.11	0.14	0.39	0.17	0.05	0.91	0.91	1.60	0.66	1.21
2016		0.11	0.14	0.39	0.16	0.05	0.87	0.91	1.61	0.63	1.21
2015		0.11	0.13	0.43	0.18	0.04	0.90	0.98	1.60	0.62	1.21
2014		0.09	0.11	0.44	0.15	0.05	0.96	1.05	1.73	0.69	1.14
2018	**Korea, Rep.**	0.15	0.36	0.32	0.77	0.02	1.16	0.99	1.56	0.58	0.02
2017		0.14	0.42	0.31	0.68	0.03	1.09	1.01	1.60	0.60	0.02
2016		0.15	0.41	0.30	0.63	0.03	1.05	1.05	1.58	0.63	0.04
2015		0.14	0.38	0.30	0.63	0.03	1.00	1.01	1.61	0.65	0.03
2014		0.14	0.33	0.30	0.61	0.02	1.09	1.06	1.64	0.71	0.04
2018	**New Zealand**	9.04	4.39	3.70	0.18	0.74	0.37	0.51	0.17	0.30	0.71
2017		8.60	4.54	3.47	0.17	0.63	0.41	0.51	0.17	0.30	0.67
2016		8.10	4.57	3.66	0.16	0.65	0.45	0.57	0.19	0.32	0.68
2015		8.57	4.61	3.45	0.18	0.61	0.57	0.59	0.20	0.32	0.60
2014		8.91	4.26	3.18	0.21	0.65	0.46	0.59	0.18	0.32	0.85

Source: Author's calculations based on the UNCTAD data.
Note: the number reported of the title in this table is the category core of SITC, Rev.4.[1] The index numbers with red shadow indicate that the value greater than 2.5, while the index numbers with gray shadow indicate that the value between 1.25 and 2.5.

Table 1: The RCA Index. RCEP Members By Commodity Section from 2014 - 2018

The RCA Index

Based on Table 5, ASEAN, there has an extremely strong comparative advantage in SITC 4, but the trend of the RCA index decreased from 7.43 to 5.96. The second sector that ASEAN has a strong comparative advantage industry was SITC 8 with the trend increasing from 1.18 to 1.35. Australia obtained comparative advantage in four industries, SITC 0, SITC 2, SITC 3 and SITC 9. From 2014 to 2018, the RCA index for SITC 0 was in the range of [1.25, 2.5] and SITC 2 was in the range (2.5, +∞). The industry of SITC 3 the RCA undex is decreasing, while the other industries (SITC 9) the index increased constantly. However, China, Japan and Republic of Korea did not obtain s trong comparative advantage, in general. China has a slight comparative advantage in sector of SITC 6, SITC 7 and SITC 8, meanwhile, Japan and Republic of Korea had the advanatge in sector SITC 7. New Zealand has a strong value of RCA in sector SITC 0, SITC 1 and SITC 2.

Based on Table 5 the number highlighted in red indicates the country has an extremely strong advantage, while the number highlighted in gray indicates the strong advantage. Based on Table 5, we could arugued that ASEAN has a comparative advantages in the resource-intensive industry (SITC 4), Australia also has string comparative advantage in resource based industries as indicated by SITC 0, SITC 2 and SITC 3 and New Zealand in sector of SITC 0, SITC 1 and SITC 2. In the sector of capital-intensive industry (SITC 7), China, Japan and Republic of Korea showed out a competitiveness. In the case of labor-intensive industry, China has a comparative advantage in sector SITC 6 and SITC 8 and ASEAN in sector SITC 8.

In general by looking at the RCA index among RCEP members, the members has a comparative advantage in commodty section of SITC 2, SITC 3, SITC 4, SITC 6 and SITC 9. New Zealand, Australia, ASEAN and China should developed or focus more on capital and human resourcesin to those areas. On the other hand, commodity section of SITC 0, SITC 2, SITC7 and SITC 8 indicated that some of RCEP has an international market competitiveness.

7. Conclusion

The regression results indicates that the population of China hardly affects the volume of international trade. The variables of GDP and the distance show a positive impacts on China bilateral trade. Based on FTA variables, ASEAN-China FTA show the positive impact on trade

[1]According to the classification standard of SITC, Rev.4 published by the United Nations Statistical Commission in 2006, international trade commodities can be divided into 10 categories: 0 indicates food and live animals; 1 indicates beverages and tobacco; 2 indicates crude materials, inedible, except fuels; 3 indicates mineral fuels, lubricants and related materials; 4 indicates animal and vegetable oils, fats and waxes; 5 indicates chemicals and related products, N.E.C.; 6 indicates manufactured goods classified chiefly by material; 7 indicates machinery and transport equipment; 8 indicates miscellaneous manufactured articles; 9 indicates commodities and transactions not classified elsewhere in the SITC.

both export and import. Australia-China and China-New Zealand FTAs represent a similar trade effect with ASEAN. However, China-New Zealand FTA does not show meet our expectation. The FTA between China and Korea show insignificant. There are two reasons why the results is insginificant. One possible reason is the period issue. China-Korea, FTA enforced in 2016, and since the data used in the analysis is from 2014-2018, therefore the analysis is hort of observations. The other reason is the RCA index. Both of countries has a strong revealed compratative advantage in the machinery and transport industry, subsequently competition in those industries emerged.

China should play a leading role in RCEP. Moreover, China should continue to strengthen diplomatic relations with RCEP members. Wignaraja (2014) suggested that RCEP must be established on the basis of a harmonious society among economies. In recent years, political disputes between countries in RCEP, especially between China and Japan, have caused serious adverse effects on economic cooperation between the two sides. On this basis, China should actively improve its political and diplomatic relations with other member countries and strengthen their political and economic exchanges, to ensure the smooth progress of RCEP negotiations.

This study had certain restrictions, thereby narrowing its findings. In general, there is a limitation in sample size. Specifically, the dependent variables should be collected in bilateral transaction trade. In the database of the Ministry of Commerce of China and the National Bureau of Statistics of China, there are only few trade partners which have a complete series of data. Since there a limitation this paper adopts qualitative and quantitative methods to analyze the objectives.

Reference

Abrams, R. (1980).”International Trade Flows under Flexible Exchange Rates”. ***Economic Review***., 65. 3-10, Federal Reserve of Kansas City, Kansas City, USA

Aitken, N. (1973). “The Effect of the EEC and EFTA on European Trade: A Temporal Cross-Section Analysis”, ***American Economic Review***, 63, pp. 881-892.

Balassa, B. (1965). Trade liberalization and “revealed” comparative advantage. The Manchester School of Economic and Social Studies 33: 92–123.

Bergsten, C. F. (1997). ***Competitive liberalization and global free trade: a vision for the early 21st century***, Institute for International Economics, 1997.

Bergsten, C. F., Gill, B., & Lardy, N. R. (2006). ***"China: The Balance Sheet What the World Needs to Know Now about the Emerging Superpower,"*** Peterson Institute Press, Peterson Institute for International Economics, number pa04648, March.

Bergstrand, J. (1985). “The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence”. ***The Review of Economics and Statistics***. 67. 474-81. Doi 10.2307/1925976.

Bhagwati, J. N. (1993***). Regionalism and Multilateralism: An Overview. New Dimensions in Regional Integration*** , Cambridge University Press, Cambridge, UK.

Brada, J., & Méndez, J. (1985). “Economic Integration among Developed, Developing and Centrally Planned Economies: A Comparative Analysis”, ***The Review of Economics and Statistics***, 67(4), 549-556. doi:10.2307/1924798

Burfisher, M., Robinson, S. & Thierfelder, K. (2004). ***Regionalism: Old and New, Theory and Practice***. MTID Discussion Paper.

Cheong, I., & Tongzon, J. (2013). "Comparing the Economic Impact of the Trans-Pacific Partnership and the Regional Comprehensive Economic Partnership". ***Asian Economic Papers***, 12(2): 144-164.

Das, S. B., Sen, R., & Srivastava, S. (2016). "Can ASEAN+ 1 FTAs Be a Pathway towards Negotiating and Designing the Regional Comprehensive Economic Partnership (RCEP) Agreement***?" Journal of World Trade***. Vol. 50, pp: 253-88.

DeRosa, D. A. (1995). ***"Regional trading arrangements among developing countries: the ASEAN example***," Research reports 103, International Food Policy Research Institute (IFPRI).

Frankel, J.A. (1997) Regional Trading Blocs in the World Economic System. Institute for International Economics, Washington DC. http://dx.doi.org/10.7208/chicago/9780226260228.001.0001

Frankel, J., Wei, S. J., & Stein, E. (1995). "Trading Blocs and the Americas: The Natural, The Unnatural, and The Super-natural" ***Journal of Development Economics***. 47. 61-95. Doi 10.1016/0304-3878(95)00005-4.

Fukunaga, Y., & Isono, I. (2013). ***Taking ASEAN+1 FTAs towards the RCEP: A mapping studies***. ERIA Discussion Paper 2013-02.

Guilhot, L. (2010). " Assessing the impact of the main East-Asian free trade agreements using a gravity model. First results***", Economics Bulletin***, 30(1), 282-291.

Hamanaka, S. (2014). "TPP versus RCEP: Control of Membership and Agenda Setting" ***Journal of East Asian Economic Integration***, 18 (2): 163-186.

He, F., & Yang, P. (2015). "China's Role in Asia's FTA". ***Asia and the Pacific Policy Studies***, 2 (3): 416-424.

Inkyo, C. (2002). "The Economic Impact and Strategic Importance of the Korea-Japan Free Trade Agreement". ***Journal of Korea Trade*** .187(1): 60-76.

Kawai, M., & Wignaraja,G. (2013). "***Patterns of Free Trade Areas in Asia***." Policy Studies No.65, East-West Center, Hawaii..

Kimura, F., & Chen, L. (2016). "Implications of Mega Free Trade Agreements for Asian Regional Integration and RCEP Negotiation". No. PB-2016-03. ERIA Working Papers.

Kolmas, M. (2016). China's Approach to Regional Cooperation. China Report, 52(3), 192–210.

Krishna, P. (1998). "Regionalism and Multilateralism: A Political Economy Approach" . The Quarterly Journal of Economics, 1998.

Krugman, P. (1991). ***Is bilateralism bad? International Trade Policy***. MIT Press, Cambridge.

Laird, S. (1999). "Regional Trade Agreements: Dangerous Liaisons?", ***The World Economy***. Vol. 22, pp 1179-1200. Doi 10.1111/1467-9701.00254.

Lamy, P. (2002). "Stepping Stones or Stumbling Blocks? The EU's Approach Towards the Problem of Multilateralism vs Regionalism in Trade Policy". ***The World Economy***. Vol 25, pp: 1399 - 1413. Doi 10.1111/1467-9701.00498.

Lawrence, P. (2006). "Strategy, Hegemony and Ideology: The Role of Intellectuals". ***Political Studies***. Vol. (1) 44. 44 - 59. 10.1111/j.1467-9248. 1996.tb00756. x.

Lee, H., & Itakura, K. (2013). "***What Might be a Desirable FTA Path towards Global Free Trade for Asia-Pacific Countries***?" Working Paper, Osaka University.

Lee, J., & Park, I. (2005)." Free Trade Areas in East Asia: Discriminatory or Non-Discriminatory?" ***The World Economy*** vol. 28 (1), page . 21-48. Doi: 10.1111/j.1467-9701.00673. x.

Lee, J., McKibbin, W., & Cheong, I. (2004). "A Dynamic Analysis of a Korea-Japan Free Trade Area: Simulations with the G-Cubed Asia-Pacific Model", ***International Economic Journal,*** 18, 3–32.

Leifur, S. S. (2014). ***China's Free Trade Agreement Strategy What lies beneath***? Retrieved April 21, 2019, from http://hdl.handle.net/1946/17726

Levi, M. (2006). " Why We Need a New Theory of Government". ***Perspectives on Politics***, 4(1), 5-19. doi:10.1017/S1537592706060038

Linnemann, H. (1966). ***An Econometric Study of International Trade Flows***. Holland Publishing, Amsterdam.

Petri, P. A., Plummer, M. G., & Zhai, F. (2011)." The Trans-Pacific Partnership and Asia-Pacific Integration" . **CNCPEC Seminar: TPP and Its Implications for Regional Economic Cooperation**, Beijing, China.

Petri, P.A., Plummer, M.G., & Zhai, F. (2012), "ASEAN Economic Community: A General Equilibrium Analysis". ***Asian Economic Journal***, 26: 93-118. doi:10.1111/j.1467-8381.2012. 02079.x

Pöyhönen, P. (1963). " A tentative model for volume in trade between countries", . ***Weltwirtschaftliches Archiv*** , 90 (1): 93-100.

Sally, R. (2013). "ASEAN FTAs: State of Play and Outlook for ASEAN's Regional and Global Integration" in ***The ASEAN Economic Community: A Work in Progress***, edited by Sanchita Basu Das, Jayant Menon, Omkar L. Shrestha and Rodolfo Severino. Singapore: Institute of Southeast Asian Studies.

Sanso, M., Cuairan, R., & Sanz, F. (1993). "Bilateral Trade Flows, the Gravity Equation, and Functional Form", ***The Review of Economics and Statistic***, vol. 75(2), pages 266-275, May.

Schiff, M. (2002). ***Multilateral Trade Liberalization, Political Disintegration, and the Choice of FTA Versus Custom Unions***. NBER Working Paper.

Summers, L. H. (1991). "Regionalism and the World Trading System" in ***Policy Implications of Trade and Currency Zoned***, Kansas City: Federal Reserve Bank.

Tinbergen, J. (1962). Shaping the World Economy—Suggestions for an Inter- national Economic Policy", New York: Twentieth Century Fund.

Tomoyoshi, N. (2002). ***An Analysis of the Economic Effects of a Japan-Korea FTA: Sectoral Aspects***. ERINA Discussion Paper, 0202eEconomic Research Institute for Northeast Asia. Niigata, Japan, August.

Urata, S., & Kiyota K. (2003). "***The Impact of an East Asia FTA on Foreign Trade in East Asia***", NBER Working Paper Series 10173 (National Bureau of Economic Research), USA.

Walmsley, T. (2006). A Baseline Scenario for the Dynamic GTAP Model. GTAP Working Paper.

Wesley, M. (2015). "Trade Agreements and Strategic Rivalry in Asia", ***Australian Journal of International Affairs***, 69 (5): 479-495.

Wignaraja, G. (2014). "Regional Comprehensive Economic Partnership Agreement (RCEP) An initial assessment", *in* ***New Direction in Regional Economic Integrtaion in Asia-Pacific,*** (ed) Asian Development Bank, Manila, pp 93-104

Wilson, J. D. (2015).” Mega-regional trade deals in the Asia-Pacific: Choosing between the TPP and RCEP?” . ***Journal of Contemporary Asia***, 45 (2): 345-353.

Zhou, X. (2007). “Endogeneity of WTO in the gravity model: China and ASEAN” . ***Chinese Business Review,*** 6 (6): 23-39.