Charles University in Prague

Faculty of Social Sciences Institute of Economic Studies

Master's Thesis

China and Southeast Asia: Trade integration and rivalry

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Abstract

South-East Asian region is the most dynamic region in the world. It is also known for having enormous number of RTAs, which became the main drive force for trade integration. Moreover, China is the leader in this region, changing fast and becoming either a pioneer or a threat for the neighbor countries. This paper uses a gravity model to estimate the influence of RTAs on the countries in the region and attempts to find out whether new agreements will deeper the trade cooperation or make the ‘spaghetti bowl’ effect even worse.

Abstrakt

South-East Asian region is the most dynamic region in the world. It is also known for having enormous number of RTAs, which became the main drive force for trade integration. Moreover, China is the leader in this region, changing fast and becoming either a pioneer or a threat for the neighbor countries. This paper uses a gravity model to estimate the influence of RTAs on the countries in the region and attempts to find out whether new agreements will deeper the trade cooperation or make the ‘spaghetti bowl’ effect even worse.

South-East Asia, RTAs, Gravity model, Noodle bowl, China

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68 pages, 100 911 symbols

Declaration of Authorship

1. The author hereby declares that he compiled this thesis independently, using only the listed resources and literature.

2. The author hereby declares that all the sources and literature used have been properly cited.

3. The author hereby declares that the thesis has not been used to obtain a different or the same degree.

Prague 2017 Ekaterina Sukhova

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Master Thesis Proposal

Institute of Political Studies

Faculty of Social Sciences

Charles University in Prague Date: 14.06.2016

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Proposed Topic: China and Southeast Asia: Trade Integration and Rivalry

Expected title of the paper: China and Southeast Asia: Trade Integration and Rivalry

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Topic characteristics / Research Question(s):
My topic will focus on the following **general research question:** How China interacts with the Asian region and of which character this interaction is.

In the spheres of global economy and international relations Asian region is normally spotlighted as a whole, the performance is also evaluated in general. However. throughout the history some actors showed themselves to be stronger and more outstanding and China is one of them. Thus, the question arises whether China is still playing in one team with the region, benefiting each other, or the rivalry arises. To test this, I will observe World Bank's Regional Outlooks, WTO Statistics Reports (comparing performance in different trade areas) as well as reports of regional organizations.

Working hypotheses:

Hypothesis #1: China now is the main driving force in the South-East Asia region.

Hypothesis #2: China trade and performance benefits the whole region.

Hypothesis #3: According to trade potential analysis, there is a ground for rivalry inside the region now or in perspective.

Methodology:

To analyze trade and economic data, I will mostly use statistics from big data bases, such as UNCTAD, WTO, World Bank etc. Also, to get a clearer image of the situation inside the region, I will analyze regional organizations, such as ACFTA (China-Asean Free Trade Area) and RCEP

(Regional Comprehensive Economic Partnership). To analyze potentials I will use gravity model and analyze detailed trade and value added data.

Outline:

Introduction

Theoretical background and review of the literature

Regional outlook

OBOR

ACFTA

RCEP

Other agreements

4. Trade analysis
    1. Gravity model
    2. Sector analysis

5. Is there place for rivalry
    1. Perspective analisys
    2. Possible areas of rivalry
    3. Discussion of results

6. Conclusion

7. References/Bibliography

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Contents

Introduction

China is one of the most interesting and controversial players on global arena. During 1980s' People's Republic of China, previously known as a very economically closed country, started the process of opening up. Even though principles of economic sovereignty were preferred by the government, the flow of foreign businesses into the country began. Trade policy shared common features with trade policies of neighbor countries – supporting of export alongside with considerable import barriers. However, protection of imports very often is the main driving force in lowering imports, as it increases the cost of capital goods and it requires more effort to make goods for export. Domestic market becomes more attractive for producers because prices there become higher than they would be without protection. To avoid this, China allowed import of goods inside the exporting sectors duty free. (Holslag, 2015) In 2010, it became the world's largest exporter and the biggest contributor to world's economy since the global economic crisis. (The World Bank, 2017)

Alongside with its success, China is still influenced by other countries in the region, as it has to be sure that no anti-PRC alliances are being build. China's authorities also interested in freedom of movement of China's population, as, because of the leverage of the water territory in the region, maritime routes are crucial for trade and security. To achieve all these, it is sensible for China to build a network of bilateral and multilateral agreements to ensure deeper cooperation. (McGiffert, 2009)
Creation of Regional Trade Agreements (RTAs) is the most common way to do so, intending to boost movement of goods, services, labor and capital between member countries.

However, the relations between countries in the region tend to be 'love-hate' relationship, as other countries realize that is would be rather beneficial to cooperate with a huge non-democratic and nationalistic ambitious neighbor country, at the same time being cautious about possible negative consequences of RTAs and the unpredictable nature of China's actions themselves.

There are so many RTAs in the region that it grew into a whole new phenomenon – a 'noodle bowl', because put on the map, connections in Southeast Asian region look like a bowl of noodles. Some scholars argue that such a big number of RTAs in the region creates a mess, and, according to domino theory, is likely to lead to overlapping of interests and fragility. (BALDWIN, 2008) That leads to Hypothesis 1:

Hypothesis 1: Deeper cooperation can be achieved by increasing the RTA's network

However, there are some opinions that expansion of RTAs network can help to avoid noodle bowl and overlapping interests and to result in some 'mega-lateral' RTA. (Park, 2013) This leads to Hypothesis 2:

Hypothesis 2: Deeper cooperation cannot be achieved by increasing the RTA's network

The hypotheses will be tested with running a gravity model, but for gravity model results to be reliable, we should check if the whole region's trade patterns correspond with the logic of gravity model, two more opposite Hypotheses are added:

H3: Current trade patterns within the SEA region correspond with the logic of gravity models very well, there no major artificial (and statistically significant) deviations

H4: Current trade patterns within the SEA deviate from the logic of gravity model, with some artificial (and statistically significant) deviations present

There are many studies developing the idea of regionalization in South East Asia and digging into this phenomenon. However, the region is very dynamic and every year there are new factors and circumstances coming. Same happened in recent years – moods shifted from strongly positive about new RTAs to pretty skeptical. So, the empirical evidence of either use or uselessness of more agreements would be very important.

1.Trade Policies in the Asian Region. China's Foreign Trade Agreements.

All FTAs in the region of South East Asia and Asia Pacific have some common policies. (Table 1)

The crucial part of any FTA in Asia is tariff reduction. Some agreements, like AFTA, take a 'negative-list' approach – they lower tariff on all the goods except a 'sensitive track' categories, sensitive goods that require a separated agreement on special terms. Other FTAs use a positive-list strategic, when all the tariffs are reduced according to an arranged pattern. (Zhang and Shen, 2011)

Almost all agreements include 'common concession' policy: all countries are required to open up the same range of products to all peer members. The tariff is considered to be 'eliminated at all' when the tariff for this product is suspended for all countries in all existing FTAs.

Rules of Origin is another crucial part of any regional agreement. These are the rules outlining the origin of the product and the tariff that should be applied to it. (FUKUNAGA and ISONO, 2013) The majority of agreements use the principle of accumulated origin, which allows the goods produced in one member country of FTA to be further processed or adjoined with goods in another member country of the same FTA and be counted in as originated from the second country. (Wcoomd.org, 2017)

So far, People's Republic of China is involved into 23 FTAs, 16 of which is actual and 7 is under negotiation. Let us give a more detailed overview about the agreements happening in Asian and Asia Pacific Region.

There could be outlined several reasons why South-East Asian Integration shifted to creation of numerous RTAs:

In the first place, the projected profit from local trade and investment encourage the creation of RTAs in East Asia. East Asian region needs to encourage domestic supply and demand to keep fresh flows coming into economy. Specifically, the expanding volume of manufacturing makes the local market a great deal more competitive, results in better facilities, attracts more money, and boosts further benefits from deepening the regionalism. Likewise, the developing vertical intra-industry trade of the assembling of parts and segments (cross-border division of labor promotes raised productivity and more productive supply chain) improves efficiency and brings greater increases from unrestricted commerce.

Second, perceiving the need for territorial trade cooperation for renewal of the local economic vitality since the East Asian financial crisis in 1997, China, Japan, and Korea embraced the policy of putting the region first. Japan did so to compete with China and take back the status of pioneer of the region. Korea, in its turn, stepped into a path of becoming a business hub, friendly to numerous multinational corporations and using the comparative geopolitical advantage of being a 'middle-man'.

Third, ASEAN wants to become the center of integration, actively supporting all negotiated RTAs and extensions. (Park, 2013)

1.1 Signed and in effect

Foreign Trade Agreement with **South Korea** was proposed in 2006. The agreement was made alongside with the fall of Korean exports to China, the country's main export market. Domestics exporters wanted to follow China's changing trading patterns. (Herald, 2017). The FTA was signed in 2015, presupposing that 90% of tariff barriers will be suspended within next 20 years. Nevertheless, after the agreement was signed, the bilateral trade fell, but as a reaction to global trade slowdown. Official statistics shows that agreement helped to develop more efficient bilateral e-commerce and increase Federal Direct Investments. Also, FTA helped the trade between two countries to stay more stable during the global economic downgrade in 2016. For example, exports of Korean goods included in the FTA shrink by 4 percent within 11 months, whereas exports of goods not supported by the agreement dropped by 12.8 percent. China also increased its direct investment into the region, being especially interested in entertainment supplies and electric cars. Follow-up negotiations on expanding the agreement into fields of services and investment are expected. (Yonhap News Agency, 2017)

Foreign Trade Agreement with **Thailand** was signed in 2003 and came into effect the same year. It was an 'early-bird' agreement foregoing the big China-ASEAN FTA, that was to start in 2010. The agreement included only farm trade and cancelled tariffs for 188 types of fruits and vegetables. The consequences of the agreement were visible. Thai farmers lost their competitiveness on the domestic market due to increased imports of cheap Chinese food. However, population of Thailand was not satisfied with the quality of imported food, complaining of an enhanced level pesticides. As the result, two countries had to come up with an additional bilateral food safety standards (Thai-China GAP). The agreement is being critiqued for not benefiting the local farmers from the both

countries, but entrepreneurs controlling trade and allowing them to use it as a tool of broadening the operation field. (Bilaterals.org, 2017)

Foreign Trade Agreement between People's Republic of China and **Singapore** was proposed in 2006 and signed and came in effect in 2009. Also, this is the first FTA on the list which was notified to WTO. The agreement is mostly directed to easing trade in services and lowering individual income tax (for the number of services, for example chargeable royalties). (Briefing, 2017) These implications are of no surprise since Singapore is the biggest trading and financial hub in Asia and also one of the China's top FDI destinations. Also, a sustainable percent of population of Singapore is of wealthy Chinese origin. CSFTA eliminates tariffs of 95% Singapore's exports to China, additionally allowing third-party invoicing of the goods. (Iesingapore.gov.sg, 2017)

Foreign Trade Agreement with **Pakistan** was proposed in 2005, signed and came in effect in 2007 and was notified to WTO in 2008. FTA included duty-free access for Pakistan on the markets of industrial alcohol, cotton fabrics, home textiles, tiles, number of fruits and vegetables, sports equipment, iron and steel etc. Also, tariffs on fish, dairy, rubber and plastic products were to be reduced by half. The agreement presupposed creation of special "China-Pakistan Investment Zones", industrial zones with not less than 40% of Chinese investments involved. Also, sides agreed on discussing the elimination of tariffs on trading goods produced in these zones and goods representing mutual interest for the countries. The process of elimination custom duties was split into two phases. Phase I prescribed both parties to reduce tariffs within 5 years after signing the agreement and Phase II endeavored both countries to suspend the tariffs on no less than 90% of goods within 'reasonable amount of time'. (Ministry of Commerce of Pakistan, 2006) Phase 2 is still being negotiated.

Since Hong Kong and Macau are Special Administrative Regions (SARs) of China, trade agreements between them and the Mainland took a slightly different form, since they are formally parts of the country. PRC has Closer Economic Partnership Arrangements (CEPAs) with these two regions. This form of agreement presupposes liberalized business conditions which allow Hong Kong and Macau enter Chinese market on more competitive grounds before opening up their economies to the global trade. Closer Economic Partnership Arrangements with Hong Kong and Macao, were both signed in 2003, came in effect in 2004 and being notified to WTO in 2003. Even though both arrangements are very similar, they were signed separately, as these two areas are separated entities of the country. While the arrangements also did not presuppose deeper economic integration between Hong Kong and Macau, the two areas still have close trade and political ties. CEPA between Macau and the Mainland liberalizes trade in goods, trade in services and investments. Arrangement suspends tariffs for 273 categories of products, which constitute about 96 percent of Macau's exports. This is made for more products from Macau to reach Mainland market. Although Mainland's products have been enjoying a majority in Macau's market, the same tariff liberalization works for them. (Trigo de Sousa, 2009) CEPA between Hong Kong works very similarly, covering trade in services, financial sector and investment sector. First, tariffs on 273 types of products were eliminated, another 713 types followed a year after the agreement came in effect, 261 more were added on the list in 2006 and 37 were added in 2007. (Hsiao, Steve Ching and Ki Wan, 2011)

ASEAN – China Free Trade Area is the biggest and maybe the most important agreement for China nowadays. This FTA also became the world's largest free trade area by population. It was announced in 2001 and was to come in effect within a decade. China – ASEAN Free Trade Agreement included suspension of tariffs on 7,881 categories of products, which consist 90 percent of imports from the region. The tariff on the exported goods was reduced from 12.8 percent to 0.6

percent. (Fta.mofcom.gov.cn, 2017) The agreement first covered the oldest members of ASEAN Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand. Cambodia, Laos, Myanmar and Vietnam, as the younger members of ASEAN, were added to the area in 2015. Nowadays, this is the most dynamic and fastest growing regional organization in the world, with the growth rate 6 percent per year on average. CAFTA (China-ASEAN Free Trade Area) can truly become a first step on the way to regional economic union (with the further inclusion of Japan and India), based on discussion, consensus and finding common ground. (Khan and Yu, 2013) For now, the Union is beneficial for both parties. For China, this is an additional big opportunity to integrate deeper with the region and exercise 'open door' policy. Moreover, China hopes to raise the amount of international trade alongside with FDI to gain a foothold in the world market. PRC is hoping to move from the status of emerging economy to a status of developed country by the middle the 50s, and to do that they have to overcome a number of problems, including US influence in the region, weakness of RMB and overdependence from US Dollar and only labor-intensive production. At the same time, the strengthening of the country shouldn't be seen by neighbors as a threat. CAFTA is able to help China to solve these problems by attracting overseas investment, boosting the trade in the region and strengthening the currency. For ASEAN members, firstly, it is a chance to overcome the problem of small size of their economies and increase their competitiveness. (Khan and Yu, 2013) Secondly, since China is undoubtedly a rising power and one of the most influential actors in the region, ASEAN countries see a mutually beneficial opportunity to take part in its growth. Finally, FTA with China boosts a further integration inside of the region itself, giving the countries opportunity to engage into larger trade with bigger economic partners, such as Japan and US. They could be scared to be shifted out of the region by China and therefore would be more willing to cooperate. (Wei-cheng Wang, 2005)

Asia – Pacific Trade Agreement (APTA), also known as Bangkok Agreement (renamed), is one of the earliest FTA in the region: it was signed in 1976 and notified to the WTO in the same year.

The participants are: PRC, Republic of Korea, Sri Lanka, Lao PDR, India and Bangladesh. The agreement's aim is to provide deeper bilateral trade liberalization and cooperation. Every developing country of the region can become a part of it through the procedure of accession. Also, this is the only agreement including two largest economies of Asia Pacific region: China and India. APTA features the common rules of origin, including the common procedures for checking the origin of goods; special clauses for least developed countries and among all includes the easing of non-tariff barriers. As to tariffs, as a part of agreement, tariffs on about 11,000 kinds of goods were lowered. For now, the Margin of Preference for China, India and Korea is 33 percent and for the rest of the participants is 31 percent. (ESCAP, 2017) Statistics shows that, after the agreement first came into effect, China's trade with ASEAN has been growing steadily, with China's imports from ASEAN (from $23.2 billion in 2001 to $106.7 billion in 2009) increasing faster than exports to ASEAN (from $55.4 billion in 2005 to $106.3 billion in 2009) (PRC Ministry of Commerce, 2017)

1.2 Under negotiation

Regional Comprehensive Economic Partnership (RCEP) is the FTA under negotiation in the region. The prospect actors are: Australia, Cambodia, India, Japan, Lao PDR, Myanmar, Philippines, Thailand, Brunei Darussalam, People's Republic of China, Indonesia, Republic of Korea, Malaysia, New Zealand, Singapore and Vietnam. Scholars believe that Asian region not only has room for one more agreement, but desperately needs it. Despite the big number of different FTAs, the measures of lowering and elimination of tariffs, facilitation and negotiations mechanisms are far from perfect. Additionally, RCEP, including a lot of actors, can be a more sufficient platform for discussion and problem solving than the bilateral agreements. Moreover, it is believed that RCEP, establishing a mutual for all trade framework and outlining requirements, can eliminate the 'noodle-bowl' problem, so common for this region. (FUKUNAGA and ISONO, 2013) Notably, the negotiations are happening alongside with another agreement – Trans-Pacific Partnership (TTP), which has a number of common participants (Australia, Japan, Malaysia, New Zealand, Singapore, Brunei and Vietnam take part in both agreements) and includes one more influential actor – United States. From the very beginning, a backroom competition is happening between two agreements. It is presumed that China could see RCEP as more favorable way to achieving Free Trade Area in Asian Region. As a part of negotiations, participants discuss: tariff elimination of 95% of exports and imports; a pattern of a corporate market; promoting investment, financial and infrastructure reforms; improving trade facilitation of all forms. However, a lot of ASEAN countries are afraid of potential harm the opening of their economies to China's textiles, cars and electronics can cause. Thus, different tariff elimination frameworks are being negotiated, with the less tariff decrease for China. Also, many participants are historical competitors (e.g India and China) or have land or water disputes (e.g South China Sea disputes). All these factors contribute to prolonging the negotiations. (Gantz, 2016) Like with many agreements under negotiation, its future us vague and unclear, and all the statements are very general so far. So,

scholars can only make predictions. Thus, simulated impacts of implementation of RCEP show that to compete with TPP, RCEP members should set a level of tariff reduction of not less than 95 percent, as TPP principles presuppose a 100 percent tariff elimination. However, the remaining 5 percent of tariff shouldn't be too high. Moreover, member states should take ann effort to somehow overcome the fears and create a 'common concession' framework, with one tariff schedules for all, to eliminate a 'noodle-bowl', not to add to it. (FUKUNAGA and ISONO, 2013)

PRC – **Sri Lanka** Free Trade agreement negotiations launched in 2014. Agreement is discussed in parallel with RCEP. Agreement is marking the anniversary of China – Sri Lanka friendship and is supposed to increase bilateral trade, especially in the sectors like tea, rubber products, fish, textiles, coconut-based products, food and electronics. For now, China is one of the largest trading partners of Sri Lanka, consisting 20 percent of total imports in 2015. Total exports is much lower – 2.9%, but China is seen as the most promising exports market. (Srilankabusiness, 2017) Sri Lanka Institute of Policy Studies concluded that Sri Lanka has comparative advantage in 566 products, 24 of which China does not import. That leaves 542 potential products to export to China. 243 of these products are already being exported. Thus, 299 products potentially could be exported to China in the future, giving a big room for deepening the integration and trade relations. (Institute of Policy Studies of Sri Lanka, 2017)

FTA between PRC, **Republic of Korea and Japan** was proposed in 2003 and negotiations on it launched in 2013. The agreement is smaller than RCEP, but not less important. Since no other FTA include these countries simultaneously, China – Japan – ROK FTA is essential for the region, because without mutual integration and consensus between three biggest actors in Asia, all other FTAs will be isolated from each other. The negotiations are anything but easy, since Japan is

concerned with the China as a rising power and considering integrating with USA to weigh out PRC. (李慧如, 2017)

One Belt, One Road is not classified as FTA, but the purposes of the initiative are very similar to one. In the core, One Belt One Road is an attempt to revive The Silk Road, building several economic corridors and connecting China, Gulf Countries, Central Asia, Russia and Baltic countries. The agreement will consist of the Silk Road Economic Belt and New Maritime Silk Road. The initiative is surrounded by many rumors, as there is very little of the official information. It is only clear that the Road will be used for better connectivity and integration between the countries not only in one region, but far beyond the borders. This makes initiative innovative and able to bring trade to a new level. However, as usual, concerns are that China may use this mechanism to enhance the influence in the region and on the neighbors. (Swaine, 2015)

2. China's Trade Links

China has become the biggest player on the global market and a crucial part of global supply chain. China sustains 10 percent of global imports and 12 percent of exports, which makes her the largest economy in the region. Cheap labor force is one of the main reasons why China became such a big success. But according to latest reports (International Monetary Fund, 2016), it seems like this trend is coming to an end, since the working-age population is getting old. So, China is forced to change the trade patterns. First, country promotes more sophisticated production heavily, trying to climb up a value chain. Hence, labor-intensive and lover-value-added product's share is stagnating or declining. Moreover, import reports are controversial, with increase in level of consumption, China's import remains stable. (International Monetary Fund, 2016) The new global anti-offshoring trend also adds to the idea, that China's cheap labor success may come to an end soon. Various scholars more and more promote anti-offshoring policies in favor of protectionism and labor protecting policies. (Emilcar, 2012; Atkearney.com, 2017)

By 2015, China had GDP of US$10 866 44 million with 22.3 percent of GDP coming from trade. Total value of exports has been rising from US$18983.8 hundred million in 2011 to US$22734.7 hundred million in 2015. However, export was fluctuating and reached a peak in 2014 at the point of US$23422.9 hundred million in 2014. So, comparing with the previous year the exports have declined. As to import, it decreased from US$17434.8 hundred million in 2011 to US$16795.6 hundred million in 2015. (Stats.gov.cn, 2017)

These amounts of trade made China number one in the world in merchandise exports (US$ 2274949 million, f.o.b), making 13.8 percent of world exports, and number two in merchandise imports (US$1681951, c.i.f), making 10.6 percent of world imports in 2015. (Stat.wto.org, 2017)

The main commodity exported from China is Manufactures, numbering US$21695.41 hundred million dollars and making 94.3 percent of total exports. Agricultural products take 3.2 percent of exports, while Fuels and mining products come up to 2.4 percent of exports. As to certain products, in Manufactures, the biggest share of exports is Automatic data-processing machines, amounting US$ 153290 million in 2015 and. The second biggest product is Radio-telephony transmission tools, valuing US$ 136713 million in 2015. In the Agricultural products sector, the category exported the most is Dried vegetables, whole, cut, amounting US$ 2812 million. Plants and its parts exports value US$2572 million.

The main export destinations are United States, getting 18 percent of China's exports, European Union, receiving 15.6 percent and Hong Kong, obtaining 14.6 percent of exports. Another major trade partner is Japan, importing 6 percent of China's exports. The remaining 45.8 percent of exports go to various countries in the region. (Stat.wto.org, 2017)

The main commodity imported in 2015 was also Manufactures, making 64.4 percent of total imports and amounting US$12075.07 hundred million. The second biggest category of imports is Fuels and mining products, amounting 21.3 percent of country's total imports. Agricultural products occupy the third place with 9.5 percent of imports. The main imported agricultural product is Soya beans, valuing US$34895 million in 2015. The second biggest is Palm Oil and its fractions, amounting much less, US$34895 million. As to non-agricultural products, the most imported one is Electronic integrated circuits, estimating US$231904 million in 2015. The imports of Petroleum oils and crude is almost twice smaller – US$134341 million.

The biggest part of China's imports – 59.6 percent – is coming from various countries in Asian region. Then, the import is divided almost evenly between twenty-eight countries of European

Union (12.4 percent), Republic of Korea (10.4 percent), United States (9.0 percent) and Chinese Taipei (8.6 percent). (Stat.wto.org, 2017)

Real imports in China have decelerated heavily in the course of the most recent two years, raising worries about a further economic boost. After skyrocketing until 2013, import rise slowed down reasonably to around 3 percent in the course of 2015-2016. Specifically, real imports contracted in the first quarter of 2015 surprisingly since the world financial crisis.

Over an equivalent period, both investments and exports decelerated fundamentally, while consumption growth impeded just slightly and still grow steeper than GDP. Moreover, recently RMB exchange rate started to appreciate faster. These changes suggest that the current import decline should be comprehended with regards to China's progressing rebalancing from investments and exports-driven economy to consumption driven economy. (Kang and Liao, 2016)

2.1 The main trading partners

China is a country with intensive and growing trade, where the main partners could be outlined. PRC is persuading a strategy of liberalizing and deepening trade, but there are still some dilemmas and issues remain. Sometimes, they are of political or even cultural matter. However, they still indirectly influence trade.

Hong Kong

Hong Kong is China’s main trading partner in the region. HK has an absolutely unique status, being a connecting line between China and the world, very different from the Mainland but at the same time heavily influenced by it. Hong Kong is a huge business hub, major re-export source and also a polygon for China’s financial experiences, among all being a pioneer in Mainland’s attempt

to make yuan a global currency. Close connections with China are of no doubt: about fifty percent of exports ends in Mainland, tourism and retail income coming from China makes 10 percent of HK's GDP and a substantial part of bank assets are loans to customers from Mainland. (The Economist, 2014)

The bilateral trade between two countries in 2016 valued US$304.6 billion, which is 8.3 percent of overall China's trade. Moreover, Hong Kong is China's second largest export market. PRC and Hong Kong has long economic and political relationships. Throughout the years, China has been becoming more and more important to Hong Kong, and its share in Hong Kong's overall trade has increased from 9.3 percent in 1978 to 50.8 percent in 2016. Import from China amounted 47.8% of Hong Kong's total import, whereas exports to China made 54.2 percent of Hong Kong's global exports. (HKTDC, 2017)

There are five main products China exports to Hong Kong.

First, Electrical apparatus for line telephony or line telegraphy and videophones, which is a very common product for Chinese export. It is also the main product exported to United States, Japan, Korea. India and Vietnam. By January 2017, PRC exported US$3,289,264,492 of the given product to Hong Kong. However, comparing to January 2016 report, stating that US$4,115,355,588 worth products were sold, this line of exports experienced a decline of 0.20 percent. (HKTDC Research, 2017)

Second, Electronic integrated circuits & microassemblies, amounting US$2,084,878,616 of exports in January 2017. This product's exports also had a slight decrease of 0.23 percent: in January 2016 Hong Kong Trade Statistics reported US$2,721,059,322 spent for the trade. (HKTDC Research, 2017)

The third largest type of product to import is Automatic data processing machines & units thereof. By January 2017 Hong Kong has imported US$1,312,536,992 worth of this equipment. Comparing to 2016 data, imports had a decline of 0.02 percent as by 2016 units worth US$1,341,908,272 have been imported. (HKTDC Research, 2017)

Moreover, the country has been importing Vessels for transport of persons and goods, such as cruise ships, ferries etc. This is the only major export sphere that saw an increase: by 2017 HK spent US$975,829,615 on imports, while by 2016 only US$683,293,117, which is 0.43 percent of rise. (HKTDC Research, 2017)

Finally, Optical appliances is a big category of China's exports to Hong Kong. In 2017 US$673,220,603 worth of goods were imported, while in 2016 the import was 0.09 percent higher – US$736,973,766. (HKTDC Research, 2017)

Overall, in 2015, as far is annual trade data is available, China exported to Hong Kong 3,869 types of HS6 digit products worth US$334,290,810 thousand. Hong Kong, in its turn, imported 3,695 types of HS6 digit products worth US$261,109,483 hundred, making China the main country's importer with import share of 46.69 percent. (Wits.worldbank.org, 2017)

In its turn, China is not importing much from Hong Kong. In 2015, imports worth US$ 12,772,656.45, with 2,108 HS6 digit products. The most imported product category in 2015 was Miscellaneous, non-categorized products worth US$12,772,656 thousand. Raw materials and intermediate goods are second most popular with US$2,458,198 hundred and US$2,312,597 hundred worth import accordingly. (Wits.worldbank.org, 2017)

Dependence dilemma. In 1997 Hong Kong was brought back to China under a condition of 'One Country, Two Systems' – basically, China's non-interference in Hong Kong's justice system and market economy without a special request. And, according to Heritage Foundation, Hong Kong is still economically the freest country in the world. (Heritage.org, 2017) However, Hong Kong is

not completely satisfied with Chinese hegemony. First, nationalistic moods are growing in the country, including some part's intention to break away from China. (South China Morning Post, 2017) Second, some are concerned that China is suffocating Hong Kong's potential – in twenty years Hong Kong's share in China's economy shrieked from 16 percent to only three percent. Also, the country is in danger to lose the status of the main investment destination with Shenzhen developing rapidly. However, China needs Hong Kong as it is now, as Mainland needs an additional 'layer' between PRC and the rest of the world, as the country itself is unlikely to synchronize with the rest of the world's order. (Economist.com, 2017)

Japan

Japan is essentially a big trade partner of China. It is not only a neighbor in the region, but also the third largest economy in the world. So, despite all the disagreements, countries need this cooperation.

Sino – Japanese relationships have not been easy but very special indeed. With the history of wars, conflicts and land disputes, the political tension is still high. (King, 2015)

The modern tensions started with the rise of China, when it overtook the status of the second biggest economy in the world, which was previously owned by Japan. Together with increased military power, China-s anti-Japanese flows, it led to an extremely difficult political situation. However, two countries are surprisingly eager to cooperate. (van Vliet, 2016)

The reason is that two countries, despite all the conflicts, need each other. A big percent of intermediate goods and raw materials for China's production is imported from Japan. So, any conflicts affecting economy would come at high cost. Katz in 2013 investigated a case of Apple's IPhone. The smart phone is made in China by Taiwanese company Foxcom. However, it includes a lot of parts imported from Japan. For example, Toshiba memory drives or Sharp LCD screens. Also, since China is more and more shifting to trading high-end tech goods, it needs more and

more spare parts import. Moreover, China is a ‘global workshop’ for a lot of multinationals, which are highly influential towards Chinese economy. In their turn, they rely on the import from Japan. So, PRC, damaging economic relationship with Japan would jeopardize much more. (Katz, 2013) Presumably, China is conscious about losing a status of ‘global workshop’ and, therefore, the investments. However, the work being done in China could be done in any part of the region, and rising wages (Table 1) and pollution level (Greenpeace East Asia, 2017) are additional drawbacks. Hence, the country can’t afford to lose a big partner halfway on the difficult path to the status of market economy.

So, the products most exported to Japan (Graph 2) are:

First, Electrical apparatus for line telephony or line telegraphy and videophones. Exports in January 2017 estimated US$ 1,208,828,58, which is, compared with January 2016 and US$ 1,270,097,272 of exports is a 0.05 percent decline. (HKTDC Research, 2017)

Second, Automatic data processing machines and it’s details and magnetic or optical readers. In January 2017, China exported US$ 601,535,354 worth of this type of goods, while in 2016 export valued only US$ 528,558,344, which is a 0.14 percent of rise. (HKTDC Research, 2017)

Third, Diodes, transistors & similar semi-conductor devices; photosensitive semi-conductor devices; light emitting diodes; mounted piezo-electric crystals. In this sphere exports also experienced drop of 0.23 percent throughout the year: in 2016 exports estimated US$ 323,313,069 value, while in January 2017 – only US$249,170,741. (HKTDC Research, 2017)

Moreover, PRC exports to Japan big amounts of Parts & accessories of the motor vehicles of some certain type. This sector of exports has expanded: While in January 2016 US$ 238,173,483 worth

of products were imported, in 2017 the number was 0.04 percent higher – US$ 248,493,409. (HKTDC Research, 2017)

Also, Women's or girls' suits, ensembles, trousers, bib & brace overalls, breeches & shorts, etc., not knitted or crocheted are also being exported a lot. Also, throughout the year the export has increased by 0.32 percent, from US$ 185,624,753 in 2016 to US$ 245,932,934 in 2017, which is the biggest export boost among the top exported products. (HKTDC Research, 2017)

Japan is also one of the biggest import partner, with overall import of US$10,126,054,452 in January 2017 and imports risen by 0.10 in comparison with 2016.

The most imported category is Electronic integrated circuits & microassemblies, with the imports worth US$ 956,399,770 in 2017. The level of import has increased since 2016 (US$899,092,291) by 0.06 percent. (HKTDC Research, 2017)

Second biggest is Machines and apparatus of a kind used for the manufacture of semiconductor boules or wafers, semiconductor devices, electronic integrated circuits; parts and accessories. In January 2017, import of this category of products was US$ 574,110,804, which is 1.15 percent higher than in 2016, when import valued US$ 267,178,095. (HKTDC Research, 2017)

Furthermore, Motor cars and other motor vehicles principally designed for the transport of persons, incl. station wagons and racing cars. Import of this category of goods further extended by 0.28 percent, from US$ 387,149,634 in January 2016 to US$ 495,409,739 in January 2017. (HKTDC Research, 2017)

Finally, imports of Parts & accessories of the motor vehicles (US$443,085,592) and Liquid crystal devices (US$383,957,520) experienced a rise of 0.38 and 0.36 percent correspondingly. (HKTDC Research, 2017)

Aside from discussing FTA with China and Korea, Japan has been negotiating the TPP Agreement (before President Trump withdrew US from the agreement) , where one of the partners is US. This is a very important and turning decision for the region, which might change the course of relationship between China and Japan. Some scholars see that Japan is very likely to use TPP[1] as a tool to change the current balance of power in Asian Region, as strategic agendas of the agreement seem to be targeted against China. Moreover, the main aim of strategic coalition between Japan and United states can be seen as aimed to establish a superiority over the neighbor countries. Also, Japan might see participation in TPP to protect domestic politics against an influence of bigger group of states.

For China, this agreement is believed to have several consequences and implications. Some suggest, that TPP has potential of jeopardizing China's leverage in the region, but has little potential to do so and work well because of the member's conflicts of interests. (Backer, 2014) Others see the tool for expansion through new projects (for example, Shanghai Free Trade Zone).

Territorial disputes. Japan may be the neighbor having the biggest number of territorial and security conflicts with China, including the most serious one – dispute over the Senkaku Islands. This conflict is no longer just a political matter, it spreads around on security, civil matters and economical relationships between two countries: at some point of the escalation of the dispute all China's rare earth exports to Japan were eliminated, a number of civilians arrested for suspicious reasons. (Tanaka, 2010) There is no doubt that this conflict is directly jeopardizing all aspects of

[1] Now the initiative is corrupted as the new President of the United States Donald J. Trump, as one of the first acts as a President, withdrew US from the agreement, claiming that US 'paid too much and got too little'. (Schott, 2017)

Sino-Japanese relations and both countries should put debates aside to support and promote bilateral cooperation.

Security dilemma. Japan has been cooperating with USA a lot, which is, of course, a direct threat to China. With current PRC's rising power, it became a threat to US – Japan alliance as well. With China's strategy to make alliances with non-democratic countries and get involved into numerous territorial disputes, it now claims that Okinawa is 'inalienable part of China'. This influences directly US – Japan relations, as USA has a military base in Okinawa. The alliance has to review and change strategic planning to a deeper one to outweigh Beijing. (Ikegami, 2011) At the same time, as already mentioned above, Japan should support sustainable relations with China as they are heavily economically interdependent.

Republic of Korea

The relationships between China and Republic of Korea has been getting better and better. (Table 3) This opens up new horizons for deeper integration and cooperation. However, like Japan, South Korea tends to also cooperate closely with US, which brings certain complications into its relationship with China. However, for some time Korea has been able to support harmonized relationships with both countries, which gives hope for stability in the future. Kim and Cha (2016) support this opinion, outlining, however, that Korea's policies towards China are unclear and fluctuating, as the country is trying to cooperate and protect itself at the same time. Scholars outline, that to achieve best results, ROK will have to face a number of dilemmas. Dilemmas over power, economics, North Korea and US.

Power Dilemma. China is a prominent neighbor of South Korea. Although they have been living next to each other for centuries, Korea has some grounds to worry about the vicinity. First, China's

power is rising in every sense, while the country exercises undemocratic regime, unlike successfully liberal South Korea. Only this is already seen as a threat by democratic countries. Second, China's military power is much stronger than Korea's. This makes South Korea a possible victim of forced influence or military aggression. Finally, China is simply bigger, both in terms of land, population and GDP, which is always make neighbors uncomfortable. With the China's global rise and supposed leverage strategy, concerns become even bigger.

Economic Dilemma. China is the main importer of South Korea, importing twice as much as the second largest importer – United States. The strong economic dependence was followed by powerful influence in political sphere, causing Korean authorities to deepen the cooperation and integration even more. As PRC is rising in power, more and more people in Korea see China as economic and military threat, admitting at the same time, that in foreseen future Korea's trade is closely connected to China. As the result, Republic of Korea sustains intensive trade, but at the same time actively cooperate in economics and military with US. For example, FTA between Korea and US is believed to be more powerful and beneficial for the country than RCEP with China.

The North Korea Dilemma. Although South Korea sees China as the main driving force and help in resolving North Korea problem: in particular, nuclear disarmament and reunification of two Koreas. Publicly, China supports Seoul in both of initiatives. However, strategically, for PR it is very unbeneficial to initiate unification of the countries, as North Korea is the main 'buffer country' between China and US, so, in practice, they maintain a status quo.

The US dilemma. Whereas South Korea is actively allying with US, country's authorities realize that, economically, they cannot break relationship with China. So, they have to find a consensus between connections with two countries. There is also a view supporting the idea that Korea's

alliance with US and close partnership with China can find common ground and benefit mutually. Moreover, if ROK gains a support of US, China could be more careful in negotiations and stop treating it like a weaker state. The current administration of Korea is supporting both views, trying to find a balance between them. (Kim and Cha, 2016)

Republic of Korea is the fourth biggest export destination for China. Total export in 2015 valued US$101,474,642.08 thousand, slightly increasing from US$100,334,574.85 thousand in 2014. Capital goods were the biggest exported category, amounting US$50,704,338.13 thousand, increasing from US$48,166,412.51 thousand in previous year. Machinery and Electronics were the second biggest category of export, counting US$48,177,871.52 hundred, boosting from US$45,934,067.17 in 2014. (Wits.worldbank.org, 2017)

The most exported type of product is Electrical apparatus for line telephony or line telegraphy and videophones, with exports worth US$684,978,252 in January 2017. However, this is the only one among top exported products which export has declined: in 2016, it amounted to US755,692,680 thousand, which was 0.09 percent more than in 2017.

Secondly, China exports Electronic integrated circuits and micro assemblies, which made US$597,396,785 thousand in January 2017. This is an increase of 0.05 percent in comparison with January 2016, when exports of these products made only US$567,460,324 thousand.

Thirdly, Automatic data processing machines and units thereof, magnetic or optical readers, machines are important items of export. In January 2017, China sold US$424,428,414 thousand to Korea, whereas in January 2016 export amounted US$374,936,257 thousand, which was slightly lower, by 0.13 percent.

Fourthly, Liquid crystal devices; lasers, excl. laser diodes; other optical appliances & instruments are being sold to China. In January 2017, exports valued US$171,886,656 thousand, increasing by 0.08 percent from US$158,973,659 thousand in January 2016.

Finally, one of the biggest articles of export are Bars, angles, shapes and sections from alloy steel. In January 2017 China exported US$157,844,152 thousand worth of these items, while in January 2016 export amounted 0.70 percent lower – US$92,631,047 thousand. (HKTDC Research, 2017)

In 2015, PRC imported goods worth US$174,563,829.86 thousand, making Korea the biggest importer to the country. Capital goods are the main imported category, valuing US$120,12,459.56 thousand. Machinery and Electronics is the second biggest, amounting US$97,905,636.65 thousand. Intermediate goods are next most imported, with the import worth US$97,905,636.65 thousand. (Wits.worldbank.org, 2017)

The major product China imports from Korea is Electronic integrated circuits and micro assemblies. In January 2017, China imported US$3,833,933,513 of those, decreasing the result by 0.05 percent in comparison with January 2016, when US$4,036,741,747 of the product was traded.

Liquid crystal devices, lasers, excl. laser diodes, other optical appliances and instruments is the second biggest article of imports. It fell by 0.05 percent from US$958,484,355 in January 2016 to US$989,446,517 in January 2017.

In January 2017, US$751,930,154 of Cyclic hydrocarbons was imported, making it the third biggest imported item. The import also has risen by 0.78 percent, from US$422,414,834 in January 2016.

Next, US$630,394,728 of Electrical apparatus for line telephony or line telegraphy; videophones were traded, jumping by 0.11 percent from US$566,108,228 in January 2016.

Finally, the fifth most traded article of import is Machines and apparatus of a kind used for the manufacture of semiconductor boules or wafers, semiconductor devices, electronic integrated circuits; parts and accessories. In January 2017 US$473,183,905 was imported, boosting by 0.47 percent from US$322,660,096 in January 2016. (HKTDC Research, 2017)

Vietnam

China is one of the biggest exporters for Vietnam. In 2015, PRC exported US$66,381,154.15 thousand, while imported only US$25,127,731.48 thousand. (Wits.worldbank.org, 2017) Among the products Vietnam imports the most are: Electrical apparatus for line telephony and telegraphy (US$446,782,923 in January 2017), Electronic integrated circuits and micro assemblies (US$268,025,343 in January 2017), Flat-rolled products (US$239,687,654 in January 2017) etc.

Historical wounds. Sino-Vietnamese relationship has been turbulent throughout the history, involving both military and economical conflicts, from South China Sea disputes to frictions concerning influence on Laos. (Minh Be, 2013) These creates ground for nationalistic flows in both countries, creating additional complications for resolving future problems.

US dilemma. Constant conflicts with China boosted US – Vietnam cooperation as partners to confront Beijing. This case became a big concern for China's authorities, as it can undermine PRC's leverage in the region and has a potential to justify U.S navy presence in South-East Asia. (Bellacqua, 2012)

ASEAN

Although trade between China and ASEAN countries has been growing bigger and bigger lately, China's image still remains controversial (Asean-china-center.org, 2017). On the one hand, deeper cooperation with PRC can bring a lot of new benefits and opportunities, on the other, it is a potential threat. First, with an economy opened for Chinese goods, there is a possibility, that domestic goods wouldn't be able to sustain the competition. Furthermore, there is a concern that China, absorbing all the trade opportunities in the region, will jeopardize local economies. Second, with the majority of trade agreements easing not only goods traffic but also human travel, increased Chinese immigration can lower the wages and decrease number of job opportunities. Moreover, for example, in Singapore, cultural and language differences led to Singaporeans disliking immigrants fron China. (Tai and Soong, 2014)

China is ASEAN's biggest trade partner, both in exports – US$134,249 million in 2015 – and in imports – US$211,515 million in 2015, constituting 15.2 percent of overall trade. (ASEAN, 2017) The structure of ASEAN exports to China is 41.2% primary products and 58.6% processed goods. Greater part of the primary commodities is comprised of energetics, food, farming products and minerals and metals. Of the manufactured goods, parts and segments of electrical and electronic products have a majority with a share of 22.8%, trailed by chemicals (14.5%) and others (10.2%). Among ASEAN's top exports to China are products that are to a great extent intermediate; of which, cathode valves and tubes constitute 18.3%, common elastic and comparable gums represent 5.1%, and parts and frill for machines represent 2.1%. Petroleum oils and bituminous minerals likewise show up noticeably and are intended to fulfil China's energy demand. ASEAN has become essential for China's economy. With rising wages and an expanding working class population anticipated that would boost to 600 million by 2020, China is expected to become ASEAN's major export market for manufactured and primary goods.

The structure of ASEAN imports from China is mainly manufactured goods. The biggest imported product categories are non-durables, for example, footwear and clothing, leather and rubber fabricates, material, textiles and paper items; and durables, for example, furniture and building machines. Parts and segments for electrical and electronic products are also imported in bulk, as well as mechanical apparatus and transport gear. There is a prospect of emerging a regional supply Chain between the countries, as electrical supply's trade is boosting. (Mendoza, Chua and Melchor, 2015)

The New Silk Road. The concept of The New Silk Road (also known as One Belt, One Road and Belt and Road initiative)first appeared in 2013 as China's initiative to create an infrastructural network between China and some of its valuable partners to promote economic cooperation and integration. Whereas the main aim is to establish better connection with Europe, the creation of The Road will also heavily affect China's neighbors and especially ASEAN. The implementation of the initiative will potentially decrease tension in the region connected with China's rising power, as a lot of investments will be directed to individual countries to build relevant infrastructure. At the same time, PRC will gain an advantage in territorial disputes and an excuse to raise the presence of navy, as marine routes will need to be protected. Overall, the initiative has a big potential to become a platform for cooperation, not rivalry. (Kaczmarski, 2015)

Competition dilemma. ASEAN – China economic relationships are balanced, trade has increased since 2000 (WITS, 2017) and the RTA was signed. This cooperation has a potential to decrease the region's dependence on developed markets, as well as attract attention to South-East Asian raw materials and natural resources. However, China also may be a strong competitor, distracting FDI into ASEAN countries and decreasing demand for domestic production. (JONES, 2008)

3.Effects of FTAs on member countries. The noodle bowl effect

The notion of 'noodle-bowl' came from the West, being Asian case of 'spaghetti bowl' phenomenon described by Bhagwati. It is a state of affairs when country has a lot of FTAs and PTAs not only with developing countries, but also with big key partners, making a mess out of the whole network of agreements and 'trying to reach in different directions simultaneously'. In particular, the big number of FTAs promote discrimination of goods basing on their countries of origin. They are growing even bigger as different members have different export and import tariffs, quotas etc. which, in its turn, encourage lobbyists trying to protect their goods and customs officers using bureaucracy to earn extra money. Moreover, in modern world with a holding trend for globalization, trying to identify the origins of products must be treacky and sometimes insensible as a lot of products are manufactured in one country and composed in another, re-exported or re-imported. Also, even though FTAs, Customs Unions and Free Trade Areas are known to promote trade creation, due to selective nature of non-discrimination policies, there is also a possibility they shift from creating trade to diverting trade. (Bhagwati, 1995)

Even though it is a common knowledge that regional trade agreements tend to promote and deepen trade, there are still some mixed opinions about their role in Asian region. The region is known for having rather complicated system of Rules of Origin, which is likely to impose additional costs burden on the businesses in South-East Asia. Polls show that the size of burden varies from country to country (for example, in Singapore 37,5% of businesses report additional costs, while in South Korea – only 15%) and also depends on the company's size. Econometric tests suggest that larger, older companies with bigger number of employees are more likely to have ROO's burden. Also, this is a concern of firms that export a lot to different countries and, therefore, use different FTAs. On the contrary, the less company has to face FTA policies, the less it is concerned about

institutional issues. On the other hand, ROO are useful for harmonizing trade in the region. (Kawai and Wignaraja, 2009)

Sheng (2014) applied extended gravity model to estimate the effect of FTA agreement between China and ASEAN. He also implemented variables reflecting global supply chain and components trade. Results suggest that bilateral trade increases heavily, especially in member states with more intensive industrial trade with China.

Cuong, Trang and Nge (2015), exploring the effects of RTA on Vietnam found out that the majority of FTAs Vietnam is involved in promote import and not export. Additionally, only one out of five agreements promote an increase of FDI flows. This is happening because, for statistical estimations, FTAs either have insignificant coefficients or negative ones. This could be due to lower tariffs.

Big regional-wide agreement in South-East Asia might become a remedy for the problem. However, the body of this possible agreement should be bigger than the net of small bilateral agreements to work properly. Otherwise, there is a possibility of strong trade diversion effect which would be harmful for rapid development. (ESCAP, 2017)

4.Trade potentials of the region

Gravity model

Gravity model is now one of the most popular and most used tools of estimation in different fields of science. It is used to estimate trade potentials, effects of FTAs and RTAs in different regions or even migration in given circumstances. (Poot and Alimi, 2016) The model was inspired by Isaac Newton's law of gravity, where the force of gravity is replaced with the value of bilateral trade and masses of the objects with partner's GDP's. (Baldwin and Taglioni, 2006)

$$F = C\frac{GDP_i \cdot GDP_j}{D_{ij}}$$

Gravity model has a lot of empirical tests. For example, Disdier and Head (2008) proved the distance effect on bilateral trade, estimating 1467 distance effects in 103 papers and concluding that distance coefficient remained stable.

However, for years, model lacked grounding. Scholars were more interested in influence of country's size on its trade, than in the distance. For example, Krugman (1980) supposes that trade flows are influenced by country size and heavily affected by trade barriers. Since in recent decade gravity model has fully regained its popularity, it naturally attracted attention to the problem of empirical and theoretical foundation of distance variable in the gravity equation. Chaney (2013) derived a gravity equation based on emergence of network of input-output connections between companies and idea that, throughout time, during company's operation, it obtains customers

further and further away. He then concludes that aggregate trade depends on the structure of distribution of firm sizes and the impact of distance on trade does not change alongside with changes in technologies of distribution.

Anderson (1979) was one of the first ones to develop a theoretical background for the model. He derives a gravity equation under the assumption that the goods differ by country of origin. This was boosted by an outstanding paper by Lucas (1976), criticizing modern macroeconomic models. Since the models used to be unrestricted, he claimed that they are likely to remain constant under always changing economic circumstances and therefore become senseless. Moreover, taking this, economic policies can be irrelevant as well, as both individuals and households act economically up to a certain point, sometimes guided by expectations which could change over time. (Olesen, 2016) As the result, while estimating the model, scholars now how to put certain restrictions to incorporate Multilateral Trade Resistance into the model, as, itself, it is unobservable.

The model was changing and developing further. In 2003, Anderson and van Wincoop solved a Border Puzzle, introduced by McCallum (1995), using gravity model. McCallum connected the gravity model to measure an incentive for the loss in trade volume represented by products crossing the US–Canada border when contrasted with intra-national trade (between states or rural areas) in both nations. The discoveries demonstrate that worldwide border effects are derived and that they matter even with two economies that share an expansive border and are exceptionally coordinated through RTAs. Trading crosswise over borders will bring about a distinction in relative costs as insurance, cargo, tariffs, non-tariff protective regulations, and difference administrative structures causes instability and block exchange to some degree. (Armstrong, 2007) As the part of their paper, Anderson and Wincoop claimed that MTR was left out of focus of empirical which leads to a number of consequences. First, model lacking variables tends to give biased results. Second, it is impossible to compare statics. In the paper, they show that control over

relative trade costs in the model is very important. The estimation showed that bilateral trade is influenced by relative trade costs, or, in other terms, the proneness of country A to import goods from country B is dependent on A's trade costs compared to 'resistance' to imports and the weighted resistance towards exporters of country A. Especially critical has been in this regard the commitment of Anderson and van Wincoop's (2003) paper, where they demonstrate that controlling for relative exchange expenses is significant for an all-around indicated gravity display. Their hypothetical outcomes demonstrate that respective exchange is dictated by relative exchange costs, i.e. the inclination of nation j to import from nation i is dictated by nation j's exchange taken a toll toward i with respect to its in general "resistance" to imports (weighted normal exchange costs) and to the normal "resistance" confronting exporters in nation I; not just by the total exchange costs between nations i and j (Anderson and van Wincoop, 2003). The method of reasoning for including these "multilateral trade resistance" (MTR) terms, as they are called, is that, two nations encompassed by other big trading economies, for example, Belgium and the Netherlands flanked by France and Germany individually and also by each other, will exchange less between themselves than if they were surrounded by seas, (for example, Australia and New Zealand) or by tremendous extends of deserts and mountains, (for example, the Kyrgyz Republic and Kazakhstan).

Specifically, Anderson and van Wincoop demonstrate that in a setting of universe of N nations and an assortment of products separated by the nation of origin a a gravity equation takes a slightly different form (WTO, 2016):

$$Xab = \frac{Y_a Y_b}{Y} \left(\frac{t_{ab}}{\Pi_a P_b}\right)^{1-\sigma}$$

(WTO, 2016)

Where

Y – world GDP, whereas *Ya* and *Yb* respectively represent GDP of countries *a* and *b*.

$t ab$ – the cost of importing a good from *a* to *b* for *a.*

$\sigma > 1$ – elasticity of substitution

Πa, Pb – countries' ease of market access or Multilateral Resistance Terms

To eliminate the problem of MTR, dummy variables are included. So, augmented gravity model takes the following form:

$$Log(Eij) = \alpha + \beta_1 \log(YiYj) + \beta_2(areaij) + \beta_3 \log(WDij) + \gamma_1(Comlang) + y_2(Evercol) + \gamma_3(FTA) + \ldots . e\_ij$$

Where Eij – value of exports from the exporter country to various importers.

YiYj – GDP of origin and destination countries

Area_ij – areas of origin and destination countries in sq.km

As to dummy variables, they are as follows:

Comlang – countries share a common language. It is supposed to encourage trade as transactional costs are reduced.

Evercol – destination country was ever a colony

Contig – contiguity

Conflict – countries in the pair are in a conflict

Pta_bb – existence of non-reciprocal PTA

FTA_wto(FTA) – existence of RTA. Nations regularly go into RTAs with the goal of encouraging reciprocal trade. The dummy variable is equivalent to one when both nations are members of the same RTA and 0 is not. The evaluated coefficient will then disclose to us the

amount of the trade can be credited to an inner regional effect. On a normal it has been found that FTAs affect trade positively.

FTA_bb – existence of FTA, Customs Union or Common Market

FTA_hmr – existence of FTA

e_ij – a log-normally distributed error term. (Batra, 2006)

The gravity model appears to be very much suitable for the case of estimating the need of another RTA. First, having a sample big enough, it can suggest some 'typical' pattern of trade, while including dummy variables into the equation makes it possible to detect some atypical activity in the region caused by RTAs. Also, on account of the right presentation of dummies in the model, one can confine TC and TD impacts of a RTA.

TC and TD will be reflected in trade patterns as following: (i) under TC, domestic exchange increments and imports from foreign countries stay unaltered; (ii) under TD, the expansion of trade in the region is completely counterbalanced by a fall in imports from the ROW; (iii) if there is both TC and TD, intra-territorial exchange expands more than imports from the ROW diminish. As a result of second-best contemplations, identification of TD and TC does not permit surmising about the welfare outcomes of a RTA for its actors. Also, shift in exports from RTA's members to non-members should be included in the model. (Carrère, 2006)

The POLS model depends on the supposition that both the intercept and coefficient for every individual are steady crosswise over cross-sectional variables in the POLS model. Rather than the homogeneous block in the POLS equation, the fixed effect model (FEM) takes into account heterogeneous catches crosswise over cross-sectional variables or potentially after some time utilizing a differential dummy. This implies each cross-sectional unit has its own particular individual particular parameter, or purported individual fixed effects. (Keum, 2008) The fixed

effect model is a common choice for macroeconomics models. It is by and large more proper than a random effect model for some full-scale datasets for two reasons. To begin with, if the individual impact pictures omitted variables, it is exceptionally likely that these nation particular qualities are corresponded with different regressors. Second, it is likewise genuinely likely that a normal full scale board will contain the vast majority of the nations of interest and, in this manner, will be more averse to be a random example from a substantially bigger universe of nations (for example, CEPII datasets) (Judson and Owen, 1999)

Implications for RTAs

Gravity model has always been one of the most popular tools for estimating the effects of Regional Trade Agreements, Customs Unions, Customs Unions etc.

The pioneering study of trade agreements was made by Viner (1950), who implemented welfare consideration into the model of customs union and introduced trade-creating (shift in trade from more expensive to less expensive products) and trade-diverting (shift in trade from more expensive to less expensive products) effects of it. The study showed that sometimes custom unions create trade diversion which deteriorates the allocation of resources in economy. A lot of scholars followed Viner's work, and as gravity model was emerging rapidly, it became very common to use it to estimate effects of regional agreements on trade. Soloaga and Winters (1999) measured the effects on trade preferential trade agreements, applying gravity model on imports data of non-fuels for 58 countries over 16 years. They did not found any direct evidence that those agreements increased intra-block trade, whereas liberalizing it significantly. Magee (2008) implemented gravity models to measure trade creation and trade diversion, running a gravity equation

controlling fixed effects. The research showed that RTAs have a long-term effect and can affect trade up to 11 years after they came into action.

Gravity model appears to be very fitting and useful for Asian region as well, since trade development and integration in Southeast Asia is now happening majorly through various regional trade agreements. Bary (2015) compared the expectations concerning ASEAN Free Trade Area with reality through time-varying effects. AFTA was supposed to boost both trade creation and trade diversion. The results showed that the agreement increased trade, with short-term trade creation effect and long-term trade diversion effect, rising throughout time. Bary and Setyodewanti (2016) estimated whether the effect of RTA can vary not only in time, but also among member countries, taking ASEAN aa an example. The results suggest that the effects can vary across countries, with one country showing more trade diversion effect and insignificant trade creation effect while the other members' effect is the opposite.

Data.

The data series cover a period of 15 years (2000-2015). All variables are in nominal terms. Imports data were taken from IMF DOTS (Data.imf.org, 2017). All other variables from CEPII Gravity data set. (Cepii.fr, 2017) Weighted distance is calculated as the population-weighted great circle distance between large cities of the two countries. (Head, Mayer and Ries, 2010) The dataset was split into 16 unilateral data sets, with one exporter country and 207 importers. As exporters, China and other East Asian region countries were taken. Importers are all world countries with trade data available, this was done to eliminate biased results and give a ground for result comparison.

Estimation

Since the first step of estimation is running the same gravity equation for 16 separate datasets, only one of them would be used as an example.

So, the dataset consists of 28 variables and 15,272 observations:

```
Contains data
  obs:        15,272
 vars:            28
 size:       916,320
```

variable name	storage type	display format	value label	variable label
exporter	str3	%9s		ISO3 alphanumeric
importer	str3	%9s		ISO3 alphanumeric
year	int	%9.0g		
contig	byte	%8.0g		1=Contiguity
comlang_off	byte	%8.0g		1=Common official or primary language
comlang_ethno	byte	%8.0g		1=Language is spoken by at least 9% of the population
comcol	byte	%8.0g		1=Common colonizer post 1945
col45	byte	%8.0g		1=Pair in colonial relationship post 1945
distw	double	%9.0g		weighted distance (pop-wt, km)
gdp_o	double	%9.0g		GDP (current US$)
gdp_d	double	%9.0g		GDP (current US$)
area_o	long	%12.0g		Area in sq. kms
area_d	long	%12.0g		Area in sq. kms
conflict	byte	%8.0g		1=War
col_to	byte	%9.0g		1=Trade from heg_o to colony
col_fr	byte	%9.0g		1=Trade from colony to heg_d
colony	byte	%9.0g		1=Pair ever in colonial relationship
curcol	byte	%9.0g		1=Pair currently in colonial relationship
gatt_o	byte	%8.0g		1=Origin is GATT/WTO member
gatt_d	byte	%8.0g		1=Destination is GATT/WTO member
pta_bb	byte	%9.0g		1=Non-reciprocal PTA ; 2=PTA (Source: Baier & Bergstrand, 2009)
fta_wto	byte	%8.0g		1=RTA (Source: WTO, 2015)
fta_bb	byte	%8.0g		1=FTA;2=Cust. Union;3=Common Market;4=Economic union (Baier & Bergstrand, 2009)
fta_hmr	byte	%8.0g		1=FTA (Source: Head, Mayer and Ries, 2010)
acp_to_eu	byte	%8.0g		1=ACP to EU
eu_to_acp	byte	%8.0g		1=EU to ACP
eu_o	byte	%8.0g		1=Origin is a EU member
eu_d	byte	%8.0g		1=Destination is a EU member

Next, country and importer dummies (country fixed effects) are created. This is the way to get unbiased results from the model. (Baldwin and Taglioni, 2006) Then, time effects are included (year dummies) to reflect the global economic changes, ups and downs. The same actions are repeated with all the data sets.

Exporter dummies and year pairs are not necessary here because the models are unilateral and there is only one exporter per model. For some country pairs some variables are zero, ordinarily because the amount of trade between those two countries is not enough to be in any way

recorded. Sometimes nations, because of their small size and remoteness from the rest of the world (especially former colonies or special areas) have very low level of trade in general. However, it is nearly impossible to determine whether their exchange is really zero or is little and has been adjusted off up as zero. Regardless, these sets with zero exchange values exhibit an issue for estimation of the gravity equation in the log form. (Batra, 2006) So, all missing data is not replaced by zeroes, even though it would mean to have unbalanced data sets, as it can influence results significantly.

Panel data models analyze cross-sectional or time impacts. These effects may be maybe fixed or random. FE models accept that individual group/time have distinctive capture in the regression, while RE models conjecture individual group/time have diverse disruption. At the point when the types of effects (group versus time) and characteristics of effects (fixed versus random) consolidated, there are a few particular models: fixed group equation (one-way), fixed time-varying model (one-way), fixed group and time model (two-way), random group effect model (one-way), random time effect model(one-way), and random group and time model(two-way). (Park, 2010)

Basing upon what was mentioned above, a fixed effect model is assumed. As the first step, linear regression is run. As the second step, postestimation tests are run (in particular, F-test and 'another' F-test, and Hausman test)

F-Test. The test is used to check the significance of 'cultural' independent variables in the equation. If null hypothesis is satisfied:

$$Ho: \beta_3 = \beta_4 = \beta_5 = \ldots \beta_n = 0$$

this means that dummy variables are equal to each other and they don't affect the trade. Otherwise, the alternative hypothesis is accepted:

$$H_1: \beta_3 \neq \beta_4 \neq \beta_5 \neq \ldots \beta_n \neq 0$$

The first F-test tests the joint significance of dummy variables for the model:

```
. test Comlang Evercol contig area_d conflict pta_bb fta_wto ldistw lgdp_d

 ( 1)  Comlang = 0
 ( 2)  Evercol = 0
 ( 3)  contig = 0
 ( 4)  area_d = 0
 ( 5)  o.conflict = 0
 ( 6)  pta_bb = 0
 ( 7)  fta_wto = 0
 ( 8)  ldistw = 0
 ( 9)  lgdp_d = 0
       Constraint 4 dropped
       Constraint 5 dropped

       F(  7,   183) =   45.99
            Prob > F =    0.0000
```

'Another' F-test is conducted by running the unrestricted model first (with all independent variables) and scanning for variables which are potentially useless for the model and increase its SSR (the P>|t| equals zero for individual variables).

Unrestricted model regression is as follows:

```
. regress lexports Comlang Evercol contig area_o area_d conflict pta_bb fta_wto fta_bb fta_hmr lgdp_o ldistw l
> gdp_d
note: area_o omitted because of collinearity
note: conflict omitted because of collinearity
note: fta_bb omitted because of collinearity
note: fta_hmr omitted because of collinearity
```

Source	SS	df	MS		
				Number of obs	= 2,699
				F(9, 2689)	= 5846.10
Model	229.178108	9	25.4642343	Prob > F	= 0.0000
Residual	11.7126589	2,689	.004355768	R-squared	= 0.9514
				Adj R-squared	= 0.9512
Total	240.890767	2,698	.08928494	Root MSE	= .066

lexports	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Comlang	.0008883	.0027937	0.32	0.751	-.0045897	.0063663
Evercol	-.0057047	.0175362	-0.33	0.745	-.0400906	.0286811
contig	.012122	.0231645	0.52	0.601	-.0333	.0575439
area_o	0	(omitted)				
area_d	-5.22e-10	8.28e-10	-0.63	0.528	-2.15e-09	1.10e-09
conflict	0	(omitted)				
pta_bb	.0030443	.0300025	0.10	0.919	-.0557859	.0618746
fta_wto	-.0166797	.0185156	-0.90	0.368	-.0529859	.0196265
fta_bb	0	(omitted)				
fta_hmr	0	(omitted)				
lgdp_o	1.527507	.0068286	223.69	0.000	1.514117	1.540897
ldistw	.0006241	.0018963	0.33	0.742	-.0030942	.0043424
lgdp_d	.0009698	.0006116	1.59	0.113	-.0002294	.0021691
_cons	-13.86386	.1765587	-78.52	0.000	-14.21006	-13.51766

In this data set, variables *Comlang, Evercol, contig, area_d, pta_bb, fta_wto, ldistw, lgdp_d* are statistically not different from zero (t-ratio), so the restricted regression is run:

```
. regress lexports lgdp_o
```

Source	SS	df	MS	Number of obs	=	2,839
				F(1, 2837)	=	55496.13
Model	241.508784	1	241.508784	Prob > F	=	0.0000
Residual	12.3460942	2,837	.004351813	R-squared	=	0.9514
				Adj R-squared	=	0.9513
Total	253.854878	2,838	.089448512	Root MSE	=	.06597

lexports	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lgdp_o	1.52747	.006484	235.58	0.000	1.514756	1.540183
_cons	-13.83447	.1689456	-81.89	0.000	-14.16573	-13.5032

Since SSR (Sum of Squares of Residuals) in restricted regression is 12.3 versus 11.7 in unrestricted regression. Since SSR shows the difference between projected *y* and actual *y*, the smaller this indicator is, the better. So, the conclusion is that those variables should not be excluded from the set.

Hausman test. It is normally used under the assumption that one model gives efficient and consistent result and the other gives consistent, but inefficient results. The alternative hypothesis claims that the first model has inconsistent results, and the second one – vice versa. In this particular panel data sets, Hausman test will be used for determining fixed or random effects model. The choice results from the data on erogeneity and individual components of both models. Fixed effects models are consistents, but sometimes inefficient in comparisom with random effect models (Sheytanova, 2014).

H0: If the model fits the hypothesis, it is a random effects model.

$$Cov(a_{i,}x_{ij)=0}$$

H1: If the model fits the hypothesis, it is a fixed effects model.

$$Cov(a_i, x_{ij}) \neq 0$$

To perform the Hausman test, first, fixed effects regression must be run:

```
Fixed-effects (within) regression               Number of obs      =       2,699
Group variable: pairid                          Number of groups   =         184

R-sq:                                           Obs per group:
     within  = 0.9540                                         min =           1
     between = 0.1106                                         avg =        14.7
     overall = 0.7497                                         max =          15

                                                F(4,2511)          =    13011.34
corr(u_i, Xb)  = -0.4640                        Prob > F           =      0.0000
```

lexports	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Comlang	0	(omitted)				
Evercol	0	(omitted)				
ldistw	0	(omitted)				
lgdp_d	.0643454	.0051437	12.51	0.000	.0542591	.0744317
lgdp_o	1.389601	.0130734	106.29	0.000	1.363965	1.415237
fta_wto	-.0133161	.0200481	-0.66	0.507	-.0526286	.0259964
area_d	0	(omitted)				
pta_bb	.0358112	.0351295	1.02	0.308	-.0330745	.1046969
contig	0	(omitted)				
_cons	-11.77299	.2442929	-48.19	0.000	-12.25203	-11.29395
sigma_u	.15162761					
sigma_e	.06624288					
rho	.83972711	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(183, 2511) = 0.87                     Prob > F = 0.8940
```

Next, random effects regression must be run:

```
. xtreg lexports Comlang Evercol ldistw lgdp_d lgdp_o fta_wto area_d pta_bb contig, re

Random-effects GLS regression                   Number of obs     =      2,699
Group variable: pairid                          Number of groups  =        184

R-sq:                                           Obs per group:
     within  = 0.9512                                         min =          1
     between = 0.9817                                         avg =       14.7
     overall = 0.9514                                         max =         15

                                                Wald chi2(9)      =   52614.86
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =     0.0000

------------------------------------------------------------------------------
    lexports |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     Comlang |   .0008883   .0027937     0.32   0.751    -.0045872    .0063639
     Evercol |  -.0057047   .0175362    -0.33   0.745    -.0400751    .0286656
      ldistw |   .0006241   .0018963     0.33   0.742    -.0030926    .0043408
      lgdp_d |   .0009698   .0006116     1.59   0.113    -.0002289    .0021685
      lgdp_o |   1.527507   .0068286   223.69   0.000     1.514123    1.540891
     fta_wto |  -.0166797   .0185156    -0.90   0.368    -.0529696    .0196102
      area_d |  -5.22e-10   8.28e-10    -0.63   0.528    -2.15e-09    1.10e-09
      pta_bb |   .0030443   .0300025     0.10   0.919    -.0557594    .0618481
      contig |    .012122   .0231645     0.52   0.601    -.0332796    .0575235
       _cons |  -13.86386   .1765587   -78.52   0.000    -14.20991   -13.51781
-------------+----------------------------------------------------------------
     sigma_u |          0
     sigma_e |  .06624288
         rho |          0   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

Grounding on these results, finally, Hausman test can be performed:

```
                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+------------------------------------------------------------
      lgdp_d |   .0643454     .0009698       .0633756        .0050881
      lgdp_o |   1.389601     1.527507      -.1379064        .0110916
     fta_wto |  -.0133161    -.0166797       .0033636        .0074924
      pta_bb |   .0358112     .0030443       .0327669        .0180231
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =      155.25
                Prob>chi2 =      0.0000
```

In this test, the most valuable for the interpretation is *Prob>chi2* index, which should be compared to 0.05. If the index is greater than 0.05, the model should be random effects model. In this particular case, *Prob>chi2* smaller than 0.05 (at least one coefficient in the regression model is not equal to zero), therefore the model to choose is fixed effects model.

5. Results and discussion.

The models (Table 4) fill in very well, satisfying the expectations and having high R.sq. values at the level of 0.8-1.0. This corresponds with other intra-regional gravity model applications. (Ekanayake, Mukherjee and Veeramacheneni, 2010) Also, the absolute majority of observation results of P>/t/ indexes are lower than 0.05 which shows that variables are statistically significant for the regression.

The trend which is obvious from the results of linear regression is that in these data sets GDP of country of origin is much more statistically significant that GDP of country of destination. Very often, destination GDP's coefficient is negative and the variable is statistically insignificant, like in case of Macao, where *gdp_d* coefficient is -0.46 and p-value is 0.34. At the same time, within the same regression, gdp_*o* is not only positive (coefficient is 0.11), but also statistically significant with p-value 0.00. This might have happened because the data sets are unilateral with only one exporter, making the GDP statistics 'shift' on the side of country of origin. The results show that GDP is, indeed, important, but it does not affect trade positively all the time and GDP of country of origin might be more statistically significant.

The distance variable proves positive in absolute majority of the cases and significant in half of the cases. The results show that distance is statistically significant for bigger economies like Japan, where the distance coefficient equals 1.51 being statistically significant with the p-value at the level of 0.003. 0.003. For the smaller economies, like Laos. Distance sometimes is not statistically significant. In this particular case, the coefficient is very small – 0.0008 and insignificant with the p-value of 0.36. The explanation might be that smaller economies in the region trade primarily with bigger neighbors in the region, like China, Japan or Indonesia.

The area of destination variable proves ambiguous, having positive as well as negative coefficients in the regressions. However, its coefficients are always the biggest one in the whole dataset. For example, in the case of Republic of Korea, the variable has a strongly positive coefficient – 2.52 with a p-value of 0.00. In the case of the countries with negative area coefficient, it still remains the biggest one in the dataset. For example, Philippines have a negative coefficient if -2.59 with the p-value at the level of 1.00. This shows that the influence of area of country of destination does not always positively influences exports, but its effect is always heavy.

Conflict dummy proved insignificant in all the cases or was omitted. Colony dummy (1 if countries were ever colonies or hosts) is positive and significant for small and medium economies of the countries which used to be French (Vietnam, Laos, Cambodia) or British (Malaysia, Sri Lanka) colonies and where still remains the historical influence. However, the coefficients are rather small with a small variance, from 0.002 in Malaysia to 0.006 in Cambodia. Contiguity was omitted or proved inconsistent in the majority of cases. Common language dummy was omitted in the majority of cases. Where it proved statistically significant, it had small positive coefficient.

FTA dummies are the focus of the research. To begin with, PTA dummy proved insignificant or slightly positive in the majority of cases. (for example, 0.002 for Thailand) This may be reflection of concerns about PTAs. (Feridhanusetyawan, 2005) They might have established such complicated net, they started a process of trade diversion, not trade creation, as many coefficients are also negative. Both RTA dummies proved to be controversial. For Singapore, Hong Kong and Philippines the dummy had negative coefficient. This corresponds with some studies including particular RTAs in the model. The negative coefficients could be a reflection of the effects of participation in RTA on the trade with the rest of the world. (Jugurnath, Stewart and Brooks, 2007) FTA dummy, which also included participation in Free Trade Area or Customs Union, showed the same pattern of behavior but with bigger coefficients. (for example, 0.0001 versus 0.05 in case of

Laos) These results are slightly different from the researches mentioned, but this is not surprising as South East Asia is the most dynamic region and every year estimations would give different results.

As to hypotheses, Hypotheses 2 and 4 are satisfied, as gravity models for the region appear rather normal, but the increasing the network of RTAs wouldn't lead to a deeper cooperation.

Conclusion

These ambiguous results show that the situation with Asian 'noodle bowl' is real. South-East Asian countries, with the intention of deeper integration or finding new markets to export to, have set up so many RTAs and PTAs, they became an issue themselves. Also, countries in the region have very different levels of development and wealth and some policies can be discriminative. One reason for bad indexes of RTAs might be the complexity of Rules of Origin (see Chapter 4). Small and large business is jeopardized by biased rules and presence of discouraging bureaucracy. Bad infrastructure in some countries could also be the problem. Moreover, as described in Chapter 3, the majority of small economies are importers of big economies in the region. Some researchers argue that the usefulness of RTAs is corrupted by the uneven tariffs, set by different economies, depending on their membership in WTO. Baldwin (2006) calls it 'tariff overhang'.

As discussed in Chapter 4, the answer for managing the bowl could be the creation of a mega multilateral agreement. However, that would require the improvement in infrastructure and negotiation methods. Also, some countries need to settle political disputes first (like China and Japan) to be able to move on and have a useful dialogue.

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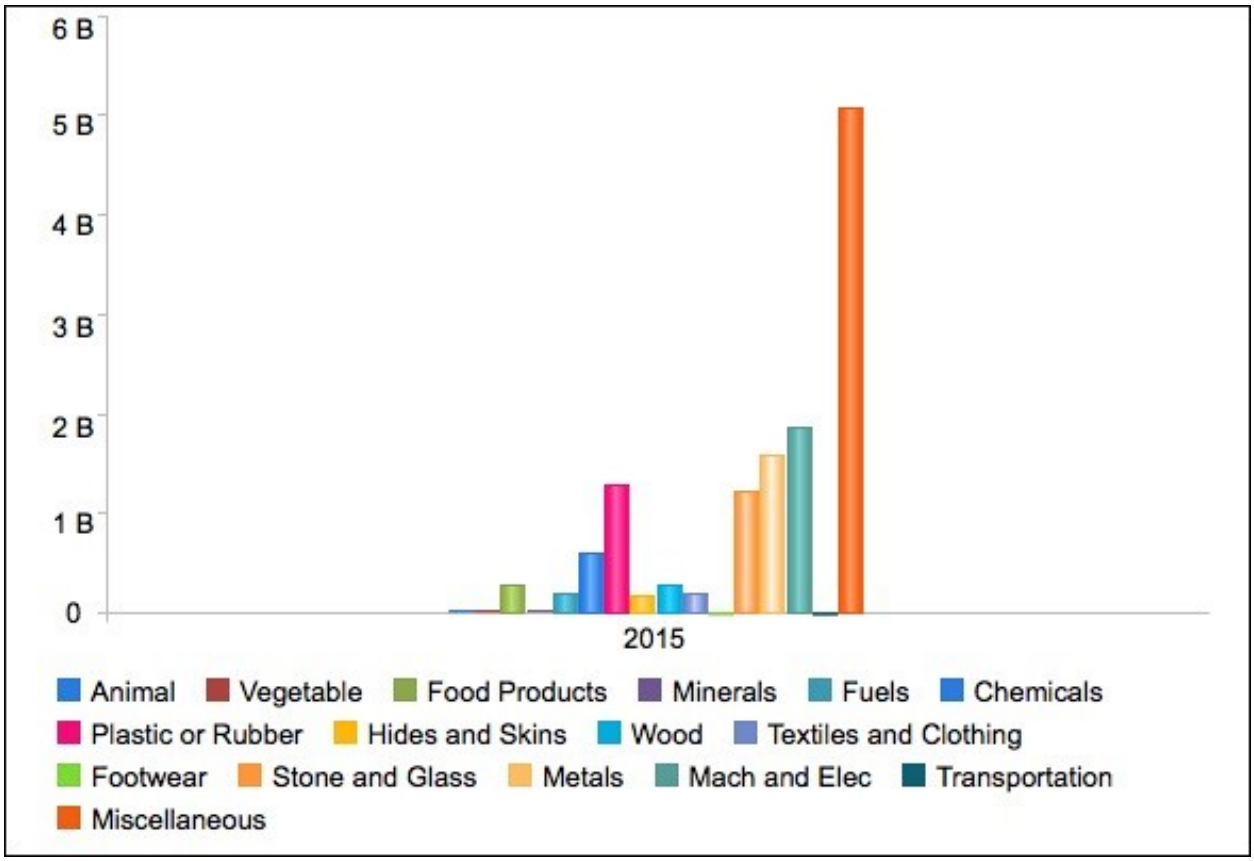
List of appendices

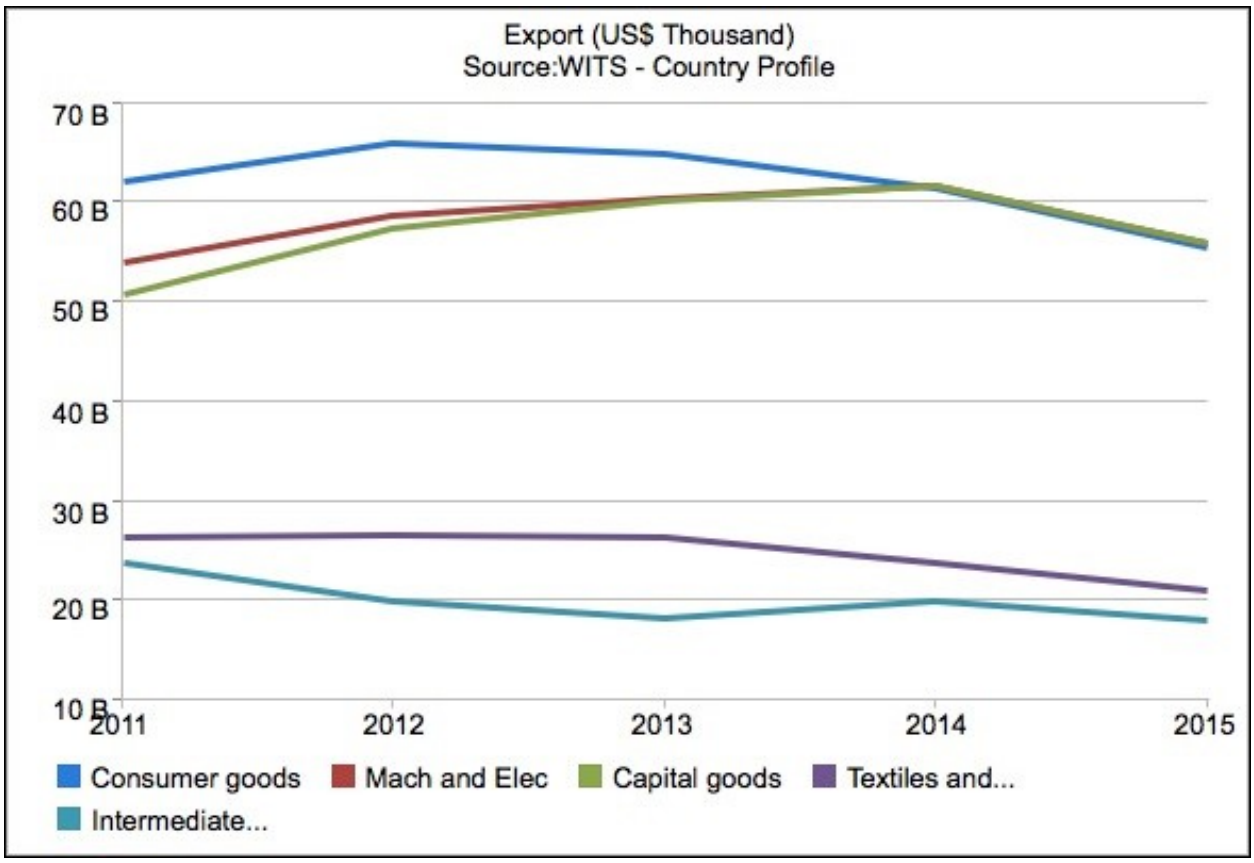
Appendices



Graph 1. China's import sector 2015. Source: (Wits.worldbank.org, 2017)

YEAR	TOTAL AVERAGE WAGE (YUAN)	INDICES OF AVERAGE WAGE (PRECEDING YEAR=100)
2010	365539	113.3
2011	41799	114.4
2012	46769	111.9
2013	51483	110.1
2014	56360	109.5
2015	62029	110.1

Table 2. Average wage of employed person in China 2010-2015. Source: (Stats.gov.cn, 2017)



Graph 2. China's Export to Japan 2011-2015. Source: WITS 2017

YEAR	*EXPORT(IN US$)*	*IMPORT(IN US$)*
2017	21 895 031	14 550 591
2016	124 432 941	86 980 135
2015	137 123 933	90 250 274
2014	145 287 701	90 082 225
2013	145 869 498	83 052 876

Table 3. Korea's export and import from China 2013-2017. Source: Korea Customs Service. Composed by the author

NAME OF AGREEMENT	PRINCIPLES AND OBJECTIVES	BASIC DISCIPLINES	TARIFF ELIMINATION	NON-TARIFF MEASURES
ASEAN-PEOPLE'S REPUBLIC OF CHINA COMPREHENSIVE ECONOMIC COOPERATION AGREEMENT	-promotion of economic and trade cooperation -facilitate trade between partners and help to erase the development gap -promote investment -establish a flexible treatment scheme for different member states	-Most Favored Nation Treatment	- gradual reduction and elimination of tariffs -finally, tariffs should be fully eliminated -special Sensitive Track for number of products	- customs cooperation -promotion of facilitation of trade
ASIA-PACIFIC TRADE AGREEMENT	- Objective is to promote cooperation widening trade	- Tariff and non-tariff concessions in favor of all goods originated in member countries	- Graduate elimination of tariffs	- No provisions

PEOPLE'S REPUBLIC OF CHINA-MACAO CLOSER ECONOMIC PARTNERSHIP ARRANGEMENT	- Promote integration and cooperation - Joint development - 'one country-two systems'	No provisions	- Continue to apply zero tariff for all goods imported from the Mainland and vice versa	- No non-tariff measures not consistent with WTO
PEOPLE'S REPUBLIC OF CHINA-SINGAPORE FREE TRADE AGREEMENT	- Promotion of trade - Promotion of collaboration - Encourage greater cooperation - Improve competitiveness of manufacturing and services sector of both parties	- National treatment of goods in accordance with GATT Agreement 1994.	- Elimination of tariffs - Possible, elimination of Custom Duties	No provisions
PEOPLE'S REPUBLIC OF CHINA-SRI LANKA FREE TRADE AGREEMENT	-	-	-	-
PEOPLE'S REPUBLIC OF CHINA-THAILAND FREE TRADE AGREEMENT	- Promotion of trade, investment and trade facilitation	-	- tariff reduction and further elimination - rules of origin - trade remedy measures	-

Table 1. China's main FTA in SE region. Source: aric.adb.org. Composed by the author.

	CHN	KHM	LAO	MMR	MYS	SGP	THA	VNM	JPN	BRN	HK	PHL
	lexports	lexports	lexports	lexports	lexports	lexports	lexports	lexports	lexports	lexports	lexports	lexports
Comlang	0	0	0.00712	0	-0.000852	0.000482	-0.000264	0	0	-0.00262	0.000888*	0.000471**
	(.)	(.)	(1.49)	(.)	(-0.27)	(1.51)	(-1.56)	(.)	(.)	(-0.77)	(2.29)	(2.73)
Evercol	0	0.00634***	0.00484***	-0.00287	0.00256***	-0.00217***	0	0.00495***	0.00661	-0.00117	-0.00570***	-0.000436
	(.)	(4.99)	(5.08)	(-1.21)	(4.20)	(-3.76)	(.)	(5.93)	(0.35)	(-0.90)	(-7.96)	(-0.80)
contig	0	-0.00164*	-0.00746	-0.00488	-0.00339	-0.00274	-0.000354	-0.00541	0	0.00127	0.0121	0
	(.)	(-2.56)	(-0.94)	(-1.19)	(-0.91)	(-1.75)	(-0.21)	(-1.17)	(.)	(0.34)	(1.24)	(.)
area_o	0	0	0	0	0	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
area_d	0	-1.77e-10	5.87e-10***	-4.38e-10	7.63e-11	-3.25e-11	1.64e-11	5.51e-10***	-2.69e-09***	8.39e-11	-5.22e-10***	-2.59e-14
	(.)	(-0.44)	(3.89)	(-1.45)	(0.69)	(-0.41)	(0.22)	(3.80)	(-3.33)	(0.24)	(-3.23)	(-0.00)
conflict	0	0	0	0	0	0	0	0	0	0	0	-0.0000719
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(-0.15)
pta_bb	0	0.0415***	-0.00624*	0.0211***	0.00727***	0	0.00275***	0	-0.0996***	-0.0416	0.00304	-0.00253***
	(.)	(4.24)	(-2.15)	(4.31)	(3.97)	(.)	(4.48)	(.)	(-5.83)	(-1.53)	(1.19)	(-4.01)
fta_wto	0	0.00972	0.00113	0.000906	0.0133*	-0.00910***	0.00897*	0.00440	0.0575***	0.0314***	-0.0167	-0.000383
	(.)	(0.72)	(0.14)	(0.09)	(2.41)	(-4.96)	(2.72)	(0.56)	(12.50)	(3.84)	(-1.28)	(-0.12)
fta_bb	0	0.0602***	-0.0564***	-0.0104***	0.00856*	-0.0126	0.00743***	0	0	0.0994***	0	-0.0158***
	(.)	(3.22)	(-3.09)	(-4.13)	(2.84)	(-1.93)	(4.53)	(.)	(.)	(147.62)	(.)	(-5.39)
fta_hmr	0	-0.0166	0.0571***	0.0253***	-0.00820*	0.0312***	-0.0117***	0.0199***	-0.0473***	-0.136***	0	0.0159***
	(.)	(-0.77)	(3.01)	(2.76)	(-2.08)	(7.75)	(-5.24)	(3.52)	(-3.42)	(-33.66)	(.)	(4.07)
lgdp_o	0.674	1.210***	1.274***	0.681***	0.784***	0.931***	1.028***	1.343***	1.512***	1.019***	1.528***	0.391***
	(.)	(795.50)	(2134.08)	(438.83)	(1364.62)	(1498.49)	(2412.07)	(1743.62)	(321.49)	(829.37)	(1380.57)	(1171.37)
ldistw	0	0.00271	0.000818	-0.000687	0.00258*	0.00135*	0.00115*	0.00208	0.0107***	0.00297	0.000624*	0.00129*

	(.)	(1.32)	(0.90)	(-0.33)	(2.75)	(2.86)	(2.15)	(1.86)	(2.84)	(1.39)	(2.52)	(2.26)
lgdp_d	0.393	-0.00109**	-0.000943***	0.00108*	-0.000494***	0.000286***	-0.000252**	-0.000902***	0.00610**	0.000368	0.000970***	0.000133*
	(.)	(-4.35)	(-5.18)	(2.35)	(-4.59)	(3.54)	(-3.08)	(-5.76)	(7.77)	(1.63)	(8.31)	(2.35)
_cons	-0.662	-5.956***	-7.806***	5.638***	5.160***	1.685***	-1.689***	-9.616***	-17.72***	-1.370***	-13.86***	14.25***
	(.)	(-169.39)	(-478.44)	(122.75)	(386.71)	(94.79)	(-163.86)	(-498.61)	(-150.96)	(-46.54)	(-481.41)	(1687.56)
N	5	2650	2633	2648	2748	2748	2674	2748	2748	2631	2699	2748

t statistics in parentheses

* p < 0.05, ** p < 0.01, *** p < 0.001

Table 4. Results of linear regressions