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The Impact of ASEAN FTA: Regional Level Analysis

2.1 Context

The World Trade Organization (WTO) takes regional trade agreements (RTA) with an open-regionalism nuance such as the ASEAN Free Trade Agreement (AFTA) as complementary to the multilateral process. As Pascal Lamy, Director of WTO stated, “Regional Agreements are like the ‘pepper’ in the multilateral ‘curry’.” He mentioned that more than 50 percent of world trade value is generated through RTA.

In the beginning, RTA such as AFTA attempt to increase intra-regional trade by lowering tariff barriers and then to attract investment Foreign Direct Investments (FDI) (Ravenhill 1995; Bowles and MacLean 1996). According to the United Nations Conference on Trade and Development (UNCTAD), nowadays the objectives of increasing trade and investment are handled simultaneously through the implementation of a comprehensive Preferential Trade and Investment Arrangement (PTIA). Yet AFTA still utilizes the classical approach in which the process to achieve a solid trade and investment integration is existing simultaneously, directly to intra-regional trade and indirectly to FDI inflows.
AFTA, as ASEAN’s regional-level trade agreement, is expected to attract investment creation (FDI inflows) from non-members, even though this regional trade agreement was basically aimed at trade integration (Plummer and Cheong 2008).

Therefore, it is important to see how AFTA, which is considered as a discriminatory trade policy by members against non-members, increases intra-ASEAN trade relations among members and can, therefore, stimulate investment creation from non-members (Motta and Norman 1996; Blomstrom et al. 1998; Baltagi et al. 2005; MacDermott 2007).

Trade agreements between countries are seen as a vehicle to increase trade relations between the countries involved. Trade agreements between countries in the region increase intra-regional trade and, finally, stimulate investment in the region. This shows that trade agreements generate a positive effect on investment creation. Therefore, it is expected that trade agreements will enhance trade and investment integration in the region, which is the necessary condition to build a solid economic community in the region.

AFTA is expected to generate trade creation through the increase of intra-regional trade in Southeast Asia. Trade creation will make the most competitive firms in the region defeat less-competitive ones in the region. This is different to a trade diversion effect, where the highest direct cost of regional integration has to be paid by firms from non-member states. Therefore, if the trade creation effect is higher than the trade diversion effect, the highest cost impact of regional economic integration has to be paid by less-competitive firms from member states. This explains why most opposition to FTA comes from local firms in member states.

The governments in ASEAN need to strike a balance between potential benefits from the enlargement of the domestic into a regional market and the potential cost from damage to local private sectors (Bhaqwati and Panagariya 1996). AFTA will benefit consumers and, if in the long run it stimulates investment inflows, it will also benefit workers as non-competitive local firms having to increase their competitiveness. Theoretically, the total benefits of FTA are positive, therefore, regional economic integration is needed.

The main idea behind AFTA’s establishment in 1992 (effective in 1999) was not originally based on private-sector interest (market-led) but more on government interest (government-led). This means that AFTA is
closer to the Keynesian rather than Classical mainstream in which governments play a more significant role than private sectors. Yet AFTA actually benefits market efficiency, positive competitiveness in the private sector, and provides more choices for consumers. Regionalism is in fact government action at regional level for the benefit of private sectors and consumers.\textsuperscript{2} In Southeast Asia, local economic liberalization implemented by influential founding members (Indonesia, Malaysia, Thailand) is very important as a key-success factor for building a solid regional economic commitment in ASEAN (Ravenhill 1995).

2.2 Purpose

This chapter has four main purposes: (1) the impact of AFTA to FDI inflows (direct impact of AFTA on investment creation); (2) The impact of intra-regional trade on FDI inflows (indirect impact of AFTA on investment creation); (3) the impact of AFTA on intra-regional trade (direct impact of AFTA on trade creation) and (4) the impact of BFTA on intra-regional trade (spaghetti/Asian-noodle/ASEAN-noodle-bowl phenomenon). In regard to the last purpose, if the impact of BFTA towards intra-regional trade is negative then the spaghetti-bowl phenomenon is real and indicates a leakage in ASEAN’s intra-regional trade as it becomes a short cut for member states to attract investment from non-member states outside the regional agreements. The scope of this chapter is at the regional level and focuses in particular on ASEAN’s founding members.\textsuperscript{3}

2.3 References Review

International economics explains that trade creation occurs when member states in regional organizations import products from other member states because of the product being cheaper than in the importing countries’ local market. Therefore, trade creation’s negative effect would strike domestic firms. Trade diversion emerges when member states of a particular regional organization import commodities from other member states because after the implementation of preferential tariff arrangement with countries in the same region, tariff within members are lower
than tariff between member and non-member states of the region. Tariff discrimination arising from a regional agreement causes member states’ less-competitive products to be cheaper than those produced by more-competitive non-member states. Therefore, if a particular region generates a trade creation effect greater than its trade diversion effect, less-competitive member states will suffer more than non-member states, yet if trade diversion effect is higher than its trade creation effect then non-member states will suffer more than member states. Scholars argue that when trade diversion is higher than trade creation, the incentives to invest increase more than the incentive to do trade as non-member states attempt to avoid the cost of being excluded from the region.4

This references review will discuss trade creation (intra-regional trade), trade diversion and its investment creation (FDI inflows). It will start with factors of FDI inflows in general.

2.3.1 Factors of FDI Flows

Previous studies about FDI factors are important as sources of references from which to select the most appropriate variables that affect investment creation.5 Selected references are discussed in the following paragraphs.

D. Sethi, S. E. Guisinger, S. E. Phelan, and D. M. Berg (2003) argue that the independent variables that significantly affect FDI are nominal GNP of FDI host as a representation of market size level, economic growth as a representation of “good performance,” trade liberalization, nominal wages (country average wages) as approach to labor cost, then population, transportation cost, tax regulation, investment liberalization, political and economic stability with a composite variable on 100-point scale developed by the Association for Investment Management and Research, number of skilled labor, and distance between host and investor countries.

Sethi et al. use 20 years of time series observation from 1981 to 2000. They combined a macroeconomic approach and firm survey (micro-economic) approach to assess FDI flows from the USA to Europe and Asia. They separated FDI values into two groups: FDI stock and FDI flows. For dynamic analysis purposes their research adopted FDI flows as
a dependent variable. This model uses multiple OLS regression models and takes regional trade agreement as dummy variable.

They adopted factors which affected FDI flows such as product differentiation, technological intensive, capital intensity, and firm size. They argue that most of the previous studies focused on static market entry instead of the FDI’s dynamic trends. They argue that the novelty of their research is on more details data on a country’s infrastructure, geographic proximity, sociocultural similarities, region basis offering non-tariff barriers of intra-regional trade and networking opportunities.

For the host country, they found that regional dummy variable, GNP, and wage are the most significant factors that affect FDI inflows. In fact, differing from most of the previous studies that show that GNP or GDP, or GDP per capita have positive relations with FDI inflows, their research found the opposite especially in the case of Asia. Using region as a dummy variable (Europe and Asia), they found that the USA’s FDI flows have been relocated from Europe to Asia because the investment pressures in Europe were tighter than those in Asia. This increased FDI and employment creation in Asia, reduced the cost of production in the USA, but at the same time reduced labor absorption in the USA (hollowing-out). They also found that population is not significant in attracting FDI inflows. In general, this research explains the macroeconomic factors that determine FDI flows from multinational enterprises (MNEs).

Sethi et al. found that there are always both push and pull factors affecting FDI. Push factors include low-cost and efficiency seeking, competition from other firms to enter the emerging market (bandwagon effect), reduction transportation cost, while pull factors would be low wages, local government regulation of investment, liberalization, and domestic reform. Their study found that since the 1980s, and intensively increasing in the 1990s, local governments in Asia have attempted to attract FDI by promoting “investor-friendly” policies. Further, these local governments are expected to guarantee certain aspects such as a stable political environment, stable exchange rates, regulation consistency, and sound infrastructure. At the firm level, these factors focus on project incentives,
tax stimulus, restriction controls over the investment, profit repatriation, technology transfer, and export requirements.

J. R. Edward (1977) indicated that the independent variables significantly affecting FDI are trade liberalization (tariff reduction) and number of skilled labor. This research observed the motivation of FDI to be profit-maximizing behavior. This behavior generates the same effect as minimizing cost of production but from a different point of view. FDI can be a tool to maintain monopoly profit abroad and market access in emerging markets abroad. This model also assessed the effect of capital and quantity function as well as between capital and cost of production using the Cobb-Douglas production function. This research did not only observe the factors for FDI but also the effect of FDI in terms of capital to the economic quantity and cost of production. It also found that the probability of having monopoly power is higher in domestic markets than in foreign markets. This means that foreign investors have been competing in imperfect competition under asymmetric information with local investors abroad. This is known as the “defensive investment” hypothesis.

Hayakawa and Lee (2012) found that inward FDI is affected by political and financial risk and in terms of FDI inflow, political risk has more impact than financial risk. The essential part of that risk is on its change or reform not on its initial level. On political risk they found the three main factors that positively affect FDI inflows, particularly in developing countries, are corruption eradication, certainty of payment period, and contract implementation.

J. P. H. Poon, E. R. Thompson, and P. F. Kelly (2000) proved that the independent variables significantly affecting FDI are institutional factors (EU, ASEAN, Mercosur, etc.) as a representation of the “custom union” effect. Their research, focused on patterns of international trade flows at regional level, involved North America, the European Union (EU), and Japan as well as investment creation. They also analyzed regional economic institutions: NAFTA for North America, the EU for the Western Europe excluding Norway and Switzerland, and ASEAN+3 for the Asian region.

Poon et al. found that Africa depends more on Europe, while South America depends on North America and the Middle East depends more on Asia. Both intra-regional trade and investment flows would spur economic growth. Their research took FDI as a significant factor in the
process of regional economic integration. The FDI flowed from developed to developing countries as an economic expansion of the developed countries. Developed countries considered their decision on FDI based on a regional appraisal rather than a single-country basis. They implemented cluster analysis at regional level given that the economic gravity in the region is the country with the largest share of intra-regional trade or regional FDI. It adopted relative number in percentage rather than volume to avoid bias assessment. Their research adopted cross-section analysis and took two different years, 1985 and 1995. They found that intra-regional trade shows more convergence than FDI patterns. The pattern of trade is more regionalized while that of investment is more internationalized.

K. Ito and E. L. Rose (2002) show that the independent variables significantly affecting FDI are political and economic risk index, corporate tax rate, country size as market size, geographic distance between host country and home country of FDI, as well as expected profit and availability of subsidiaries for firms, before they decide to invest.

Ito and Rose observed the specific FDI patterns in the tire industry. They found that the tire industry’s global market is oligopolistic. They used binomial logit models and found that investment behavior depends on the rivalry action of a competitor. This is similar to the theory of oligopolistic reaction that strategic behavior of one actor depends on the presence of its competitor. In previous studies, classical economics argues that profit in an oligopolistic market would increase if the firms choose to have cooperative policies. Oligopolistic reaction is also known as follow-the-leader behavior or bandwagon effect in trade. A similar argument to oligopolistic reaction applies to investment decisions. A firm would less likely invest in a country where its rivals are already trading because they would avoid going head-to-head since competition always reduces profit. For that reason, oligopolistic reaction is not a risk-taker strategy. Other arguments suggest that a firm would still invest in markets already controlled by their rivals but only to show that it exists. Remembering that the international market consists of several markets, also known as multimarket competition, then in some markets it most likely that one rival controls the market while in other markets another rival is in control. The first-mover would control the market and the following firm would need
to adjust its investments in order to keep common profits high. There are five major players in the tire industry: Japan (Bridgestone which acquired Firestone), USA (Goodyear), Italy (Pirelli), France (Michelin which acquired Uniroyal and Goodrich), and Germany (Continental). Ito and Rose’s research assumes that competition in the market depends on the number of firms involved in the market itself.

Ito and Rose adopted a dynamic analysis at which in the beginning, because of a lack of trust, firms were reluctant to cooperate but over time they might in fact cooperate. In multiple oligopolistic markets a firm is unlikely to be over aggressive in one market because were it to be so it would risk incurring retaliation from its rivals in other markets. This result requires a perfect-information assumption and found that the current multimarket competition theory challenges classical economic oligopolistic theory because the lack of trust between firms would in the end trap them into a prisoner’s dilemma to compete with each other.

M. J. Foster (2000) found that the independent variables that significantly affect FDI are financial risks and non-financial risks such as sound infrastructure, IT and electricity facilities, English speaking capacity, and nominal GDP of FDI host as a representation of market size level. His research focused on FDI patterns in East and Southeast Asia from 250 listed companies in the UK.

Foster adopted a primary data method by sending postal questionnaires to respondents followed by eight detailed interviews. The response rate of the postal questionnaires was 40 percent which is sufficient for a postal method. The fully completed and correct responses were then followed by interviews with managers or senior planners. This research found that in terms of financial indicators, the most essential ones are NPV (Net Present Value) and IRR (Internal Rate of Return) of the FDI.

Foster found that the risks in FDI do not necessarily relate to financial aspects alone, but also to non-financial aspects such as the need of sound infrastructures, electricity and telecommunication facilities, and skilled cheap labor availability. Another non-financial risk is country risk, for which his research adopted host-country debt ratings from Moody’s and Standard & Poor. In the period of analysis, the study found Malaysia to have a better country debt rating than Indonesia and Thailand.

Foster assumed that the global environment for FDI had changed a lot, where now firms prior to investing must consider: environment
issues, core competence towards competitors, and adjusting capacity on IT progressiveness. He attempted to analyze the important connection between FDI and trade. His research found that in the 1990s the regions considered most attractive and with a rapid increase of FDI are East Asia, in particular China, and Southeast Asia, in particular Singapore, Malaysia, Indonesia, and Thailand, followed recently by India. The five major FDI investors are: France, Germany, the UK, the USA, and Japan.

M. Motta and G. Norman (1996) found that the independent variables that significantly affect FDI are nominal GDP of the FDI hosting country as a representation of the individual country market size level, investment liberalization, trade liberalization in the form of trade accessibility of tariff and non-tariff barriers, and investment incentives at country level.

Motta and Norman attempted to prove that increasing the intra-regional market will increase incentives for outside firms to invest in the region (Horizontal FDI). They also showed that regional economic integration creates asymmetric information between member and non-member states, and this shows that regionalism produces oligopoly markets in the international trade system. Regional economic integration makes non-participating countries become less attractive for investors and motivated them to invest, such as in the experience of Japanese firms in the EU, where the trade diversion effect is higher than its trade creation effect.

Motta and Norman found through the implementation of the sub-game theory of the Cournot-Nash model that regional economic cooperation tends to increase intra-industry trade but does not always generate the investment creation of FDI. Their research analyzed the international oligopoly market in trade and FDI using a three-country and a three-firm model. They covered three regional economic organizations: NAFTA, ASEAN, and the EU, and found that incentives for FDI inflows are not only affected by the elimination of trade barriers (tariff and non-tariff) in the region but also by country size. An increase in FDI in the region by external firms would increase production competitiveness in the region. At the country level, an increasing FDI is seen as a good sign from the government’s point of view but it does not necessarily mean that local firms share the same view. In the long run, high levels of FDI make the host country dependent on foreign countries.
FDI inflows would benefit local consumers (and workers) at the cost of the host country’s local producers while imposing costs on the home country’s consumers (and workers or hollowing-out) though benefiting home-country investors. They also found that local producers who are not able to compete with foreign investors would have the incentive to switch their investments either by becoming traders or investing in other countries. They found that intra-regional trade significantly determines intra industry trade.

P. J. Buckley (1993) explains the factors that determine FDI inflows in a particular location. The factors are around internal or domestic country factors as well as market structures related to multinational investment strategy.

Buckley focuses on location cost for multinational firms as an approach to location cost of FDI in general and multinational enterprises as the institutions that provide FDI. There are three big factors that related to the FDI flows: social and political, research and technology, and changes in demand taste. Specific factors in production such as input, manufacturing, transportation, and home-host factors also affect FDI flows when enterprises are in the process of considering investment location. He argues that both macroeconomic and microeconomic approaches are needed when analyzing FDI flows. In sum, his research discusses general factors from domestic factors, oligopoly strategies between multinational firms, and the role of local government in attracting FDI inflows.

P. Lin and K. Saggi (1999) show that the independent variables that significantly affect FDI are illegal imitating action against Intellectual Property Rights (IPRs). FDI flows have become more flexible and mobile since the 1980s, when foreign investment had been a global trend for national policy liberalization. Since that period, the issue of local imitation versus FDI investors who own original products has increased and has currently turned into a global issue concerning the importance of IPRs especially for FDI investors.

Lin and Saggi explained about the mixed-strategy equilibrium of a dynamic model which affects probability of FDI. They suggest that there are at least two factors that stimulate FDI from a home country. The first is the low marginal cost of production in the host country compared to the home country. This lower marginal cost is caused by low wages in
the host country as well as zero cost of transportation and tariff and non-tariff barriers. The second is the competitive incentive point at which a firm decides to make a long-term investment abroad as a result of its competitor having done so.

Lin and Saggi explained about the incentive for “local imitation” which intensifies competition in the host country of FDI. They found that FDI stimulates more negative externality of local imitation than trade (exporting) from technology transfer or spying and copycatting by local firms. Their article takes two views on FDI. First on negative externality from “local imitation,” in particular massive production by newly liberalizing countries such as China and Russia and the second on the positive externality of long-term learning from “local imitation” cases that generated the rule of IPRs. This study took local imitation as a negative externality and adopted a dynamic model of non-cooperative action between the leader of FDI (the first firm to invest with FDI) and the follower of FDI (the second firm to invest with FDI) to show its positive externality (from the leader to the follower). If negative externality is greater than positive externality the follower of FDI will shift its type of investment from direct investment to licensing. Yet these followers would not choose to remain as exporters because the investment payoff benefit is always higher than staying as a trader. This would extend the “grace period” for the follower to switch its investments to FDI. This lag time depends on how fast local imitation occurs.

Their study proved that the quicker local firms imitate the FDI leader, the longer the lag time of the follower to switch to FDI. Even though local imitation increases competition between the local firm and leader of FDI as a negative externality it also could decrease competition among FDI investors. If competition between FDI investors is tighter, then local imitation is preferred by the FDI leader since it extends the delay time of the FDI follower. This is known as the “indirect benefit” from local imitation. This provides incentives to be the FDI leader instead of the follower (first mover advantage). For the follower, the delay time is not only affected by the local imitation adjusting time but also by the level of competition. In this case even if local firms could immediately imitate the FDI leader, if the quality of product does not meet consumers’ demand and taste then the follower would have a high incentive to switch to FDI. This will make
competition tighter since it involves both multinational competitor (FDI follower) and local firm (local imitator). In regards to the “first mover advantage” of the FDI leader, they found that the local imitation cost was higher for the follower than the leader. In general, if a local customer is less likely to switch their taste to alternative sellers then being the FDI leader is more beneficial than being an FDI follower.

R. Rob and N. Vettas (2003) found that the independent variable that significantly affects FDI is trade competitiveness. They took geographic aspects on production networks as an essential factor before a firm decides to invest in direct investment. Similar to Ping and Saggi’s study, Rob and Vettas also argue that FDI generates low marginal cost compared to exporting. They argue that the FDI host firm has exported to the home country before the firm switched to become an FDI investor. The firm needs to switch from being an exporter to an investor particularly because the demand for its products from home or importing country has increased over time. This explains the trade-led investment phenomenon, also known as “from trade relation to investment creation.” The motivation for FDI depends on savings on variable costs such as lower transportation cost, insurance cost, tariff, tax and labor cost, and entry cost. The entry cost is a sunk cost because FDI generates irreversible cost once the firm decides to invest. If the saving from variable costs is higher than entry costs then a firm is better off investing in FDI and it would be better to export when the opposite occurs. FDI inflows continuously increase as long as demand (domestic and global) increases. If exports increase as well as FDI inflows then both have complementary relations, and if the opposite occurs then both have a substitution relation.

Rob and Vettas’s research, similar to Ping and Saggi’s study, simulates a dynamic equation to explain the waiting time or delay time before investors decide on having direct investments. If Ping and Saggi take the adjusting time capacity of a local firm to start imitating, Rob and Vettas consider the difference between saving of variable costs of FDI and entry costs of FDI. If saving cost is higher than entry cost then investors will decide to invest in FDI or switch from seller to investor. Another basic difference between Ping and Saggi and Rob and Vettas is in the methodology. Ping and Saggi took dynamic and complete information while Rob and Vettas adopted dynamic and incomplete information as the basic assumption.
R. Barrell and N. Pain (1996) indicated that the independent variables that significantly affect FDI are Nominal GNP of the host country as a proxy for the market size, labor and capital cost in the host country, and exchange rates in US$, which represents market stability. In this article Barrell and Pain focus on US companies’ FDI. They implemented econometric analysis using the 1970s and 1980s time period because it was during this period that the USA had been the biggest FDI donor and its share was more than the total of the second and third largest FDI donors altogether. Barrel and Pain’s study observed factors of FDI from both the home and host country. The long-run investment is total FDI, not only manufacturing sector FDI. They started from the common proposition that firms try to maximize profit from investments abroad. Firms consider some factors such as location of production, optimum mix of factor production, and appropriate tools for financing the investment.

Barrell and Pain found the trade-led investment relationship in the service sector as export stimulated FDI inflows in this sector. The US$ currency and the local host country currency were significant in affecting FDI flows from the USA in the period of observation. Stability of exchange rate of US$ and local currency affected the price of both production inputs: local inputs and imported inputs. Therefore, they found that fluctuation of currencies had a greater effect than the increasing wage of local labor input. They adopted a dynamic model in exchange rate to respond to the proposition that currency expectation gives more significant effect to investment decision rather than real currency. Expectation currency had been calculated by either comparing the difference between spot and forward rates or current and three-month interest rate.

They also proved that calculating the effects of trade barriers, such as the effective rate of protection, dumping, and voluntary export restraints, to FDI are more difficult than observing the effect of capital control to FDI flows. Their research found a positive relationship between home country capital cost and outward FDI. In the long run, this elasticity is smaller than the elasticity of labor cost to outward FDI. Both of these findings show that FDI was more affected by home country capital costs, and in the long run FDI outflows are more sensitive to capital cost rather than labor cost. These findings were different to most previous
research findings where FDI outflows seek low wage levels in the FDI host country.

S. J. Kobrin (1976) explained about the dynamic effect of FDI in host countries. Unlike other references in this topic that discuss factors of FDI, this reference discusses impact. Adopting this perspective is essential since impact can be considered at the same time as other factors. Kobrin took a sample of 59 developing countries with multiple cross-section regression analyses on industrialization, social change, and FDI. He found that FDI causes industrialization to put more pressure on social structures. These observed countries were limited to those having a minimum of one million population and US$ 500 Million GNP. This finding was consistent with the “theory of underdevelopment,” which explains that developing countries depend on developed countries in regards to economic, technological, and cultural factors. FDI as the core in the industrialization process was believed to be the main factor in creating “indigenous capitalism” in developing countries. Those not involved in a capitalism system would stay underdeveloped, and in general this indigenous capitalism created “inequality” among developing countries.

Kobrin adopted a broader view that FDI does not only affect economic indicators such as balance of payment, capital account, and capital accumulation but also the social structure and political regime. FDI has the power to transfer elements of industrialization from developed to developing countries and thus allow developed countries to have influence and control over developing countries. These influencing effects were not limited to the economy but also to social changes or social modernization. This also affects political life because access to capital is normally controlled by elites in the developing country who traditionally rule the country. As well as economics, FDI affects both of the other essential elements of a developing country: politics and social life. Kobrin’s study found that FDI has a positive effect on mobility of factor production but a negative effect on social organization in developing countries.

T. A. Pugel (1981) argues that the independent variables that significantly affect FDI are legal share limit for foreigners, capital cost, organizational techniques, marketing abilities, market structure in a particular oligopoly market, transportation cost, and nominal expenditure
on R&D. Similar to some of the literature discussed earlier, Pugel focused on US manufacturing industries. His research found that multinational corporations (MNCs) with their monopoly power in terms of non-pricing strategy such as promotion, competition, and technology entered the foreign market and increased competition in the FDI host’s local market as well as the global market as it made overseas countries alternative production bases. Yet at the beginning, MNCs faced asymmetric information about the host country such as consumer tastes, local customs, and discriminative conduct by the host government, laws and business practices, and so on. This made start-up costs very high at the launch but these decreased over time. This research found that FDI has always consisted of principal firms in the home country and branch firm(s) in the host country: this format is commonly known as the “subsidiary form.” The form consists of two types: licensing from a headquarter in the home country of FDI for local producers in the FDI host country to produce the products (known as “arm’s-length licensing”); and establishment of a foreign subsidiary. The balance between start-up costs from asymmetric information about the local host country and transaction costs from adjustment-time, decides whether an MNC prefers to license or enter a joint venture with local producers.

Pugel identified the so called background “locational factors” that decide whether a firm prefers to have centralized or decentralized production. If a firm considers that start-up costs were too high, it would choose centralization or at least a licensing form, but if the firm considers transportation costs were too high, it would establish FDI overseas. He also found that FDI gives positive and significant effects in increasing managerial shares and organization complexities in the host country. This means FDI generated positive spillover effect in enhancing the host country’s level of development. This research found positive and significant relationships between concentration as oligopoly indicator and the extension of production as an FDI approach and between technological and management skills and FDI incentives. In sum, Pugel found that firms that prefer decentralization of production in the form of FDI are oligopolist advanced-level firms or larger firms. Meanwhile, smaller firms with monopolistic characters prefer to expand in the home-country
market or deliver licensing in the host-country market. In the end, this research concluded that generalizing determinants of FDI was impossible since the factors varied dependent on the type of industry or sector.

U. Walz (1997) found that the independent variables that significantly affect FDI are consumption level, R&D expenditure, and number of skilled labor. Walz applied a dynamic general equilibrium model of endogenous technological change. This is because firms develop R&D in developed countries and then produce their products in low-cost countries. FDI was produced by that network and it generated knowledge spillover effect from more-advanced to less-advanced country. This technological and knowledge spillover is dynamic, therefore it needs a dynamic model. Walz adopted the idea of a general equilibrium model of production network from Helpman and Krugman (1985) who did original research on the general equilibrium framework of the MNCs. MNCs and their FDI were incorporated in the model as endogenous growth framework. There were knowledge spillover effects from flows of FDI from more-advanced to less-advanced country as Helpman and Krugman had found in trade.

Walz found that FDI generated economic growth in the country that is open and has liberalized investment rules for FDI in particular. His study found that in the long run tight intellectual property rights (IPRs) regulation will: increase FDI inflows to the FDI host country, provide greater innovation incentive in home country, and higher economic growth following in both countries. Walz developed two functions: real and financial sector functions. He formulated two real sector models: production and consumption. In the production function he defined skilled labor as mobile labor and unskilled labor as immobile. In the consumption function Walz formulated a utility function and consumption from quality and consumption level function. All of these functions were disaggregated by different industry and country. For the financial model, he defined financial as a mobile factor. Yet this model adopted “risk free interest rate,” which made him assume that the real interest rate was equal. His research found that tax reduction and liberalization of FDI would increase growth of FDI inflows and then they would increase R&D and technology transfer in the host country. Decreasing barriers to entry for FDI would decrease start-up costs and lead to a lower sunk
cost of FDI. This would make the country more attractive for FDI investors. Walz argued that the easing of migration barriers generated similar impacts on FDI liberalization, that is, decreasing costs. He argued that relaxing immigration would decrease the cost of labor, which made him appear pro-immigrant workers. On the production side, he argued that subsidies for R&D, selected subsidies for producers, and tighter IPRs would increase FDI motives. Walz proved that discriminative policies by the host country would decrease the growth rate of FDI inflows; therefore, he suggested that the government of the host country must provide non-discriminative policies between local firms and MNCs.

W. Hejazi and A. E. Safarian (1999) found that the independent variable that significantly affect FDI was spillover effect on R&D. They attempted to see the relationships between FDI, foreign trade, and Total Factor Productivity (TFP). They observed six countries from the G7 namely Canada, Italy, Germany, Japan, the UK, and the USA. These countries are major FDI investors around the world with a combined contribution of about 95 percent of the total outward FDI. Hejazi and Safarian found that countries with high FDI shares have high R&D levels. This means that FDI is strongly connected to a country’s technology level. FDI contributes a high spillover effect on the international economy, therefore, it has a significant role in and a strong relationship with international trade. Excluding FDI role in the analysis of international economics would be misleading. Hejazi and Safarian found that R&D and technology development in the home country stimulated FDI outward, and FDI would in turn stimulate knowledge and education in the host country, which would lead to increasing R&D and technological progress. FDI generating positive spillover effects in the host country in the future could turn host countries to become home countries of FDI. Hejazi and Safarian applied panel data that combined time-series and cross-section data analysis. Their research highlighted the importance of organizational aspect of FDI to be on how MNCs play their essential role in managing FDI and its spillover effect in the FDI host countries.

W. Hejazi and P. Pauly (2003) found that the independent variables that significantly affect FDI are labor wage per hour, interest rate, expenditure on R&D, corporate income tax rate, T-Bill rate, and input cost (Producer Price Index). In general, this research focuses on the relationship between
FDI and economic growth yet it explains detailed factors between them. This research database was taken from Canada’s industry-level data. This research found that the role of FDI inflows and outflows had increased in developed countries for 10 years from 1990 to 1999. In 1990, the share of FDI inflows and the outflows of GDP of developed countries were 4.7 percent and 6.4 percent respectively while in 1999, they increased up to 14.5 percent and 19 percent respectively. Hejazi and Pauly in this research described three essential factors that affect FDI flows in host countries: market access, factor endowment differences, and access to natural resources. They found that FDI inflows also generated positive impacts for the host country’s domestic economy. From a market-access aspect, inflows stimulated local intra-firm linkages as foreign investors require local intermediate inputs. This, in turn, stimulated export opportunities for local firms. As from factor endowment, motives to invest were influenced by low-cost production and employment creation in the host country. From a natural resources access standpoint, FDI inflows stimulate utilization of natural resources and can make local firms start caring about their own natural resources. From its general models, this research took several variables that hypothetically affect FDI and Gross Fixed Capital Formation (GFCF). The variables are corporate profits, corporate taxes, price indices for intermediate inputs, and price indices for labor input (wages), interest rates, capital stocks, and R&D spending.

2.3.2 FDI Flows and ASEAN Economic Integration

M. Plummer and D. Cheong (2008) found that FDI flows to ASEAN decreased during the Asian financial crises of 1998 and picked up after 2005. After the economic crises, home country of FDI (inflows) shifted from non-member state (extra-region FDI) to member state (intra-region FDI). The majority of home country of FDI (inflows) among the member states are Singapore, Malaysia, Thailand, and Indonesia. Plummer and Cheong explained that the ASEAN Economic Community (AEC) is the phase of regional economic integration in ASEAN to enhance trade liberalization and investment creation (FDI inflows), and this is important for a further phase of free flows of capital and people. Therefore, an
important goal of the AEC is to attract FDI. Complete tariff reduction (CEPT 0 percent) in 2015 is designed to achieve this important goal. ASEAN implemented several kinds of regional level agreement such as the ASEAN Industrial Project (AIP), ASEAN Industrial Complementary (AIC), ASEAN Industrial Joint Ventures (AIJV), ASEAN Industrial Cooperation (AICO), and, the most important one, ASEAN Investment Area in 1998 which come into force in 1999.

Plummer and Cheong found that the manufacturing sector is the most preferred sector for FDI investors in Southeast Asia and that the most popular products that have both horizontal intra-industry trade and vertical FDI inflows are electronics and auto parts. Electronic products also appear in AFTA lists. In total, Plummer and Cheong’s research indicated the highest FDI inflows after Asian financial crises took place in 2006. They found that vertical FDI inflow (from member states) is higher than that of horizontal FDI inflow (from non-member states). Fixed effects of Panel Regression from their model found that the independent variables are GDP and population size.

Potential FDI inflows in Southeast Asia come from Asian countries. Cordenillo (2005) argues that after the official signatory of the Agreement on Trade in Goods (TIG), the ASEAN and China Comprehensive Economic Cooperation entered the main stage of ASEAN China Free Trade Area (ACFTA) which was fully implemented in 2010 by ASEAN’s original members (Indonesia, Malaysia, Thailand, Philippines, Singapore, and Brunei) and 2015 by ASEAN’s newer members (Cambodia, Lao PDR, Myanmar, and Vietnam). The ASEAN Secretariat simulation with Global Trade Analysis Project (GTAP) found that ACFTA will increase both intra-regional trade and regional FDI inflows. From intra-regional trade, ASEAN exports to China will increase around 48 percent while China’s export to ASEAN will increase about 55.1 percent. Following the increase in intra-regional trade, China’s FDI in Southeast Asia will also increase to expand her market in ASEAN and to make ASEAN a production base for China’s industrial networks. This reminds us of Japan’s Regional Production Network in Southeast Asia established around 40 years ago.

Cordenillo found that AFTA+1 is the substitution of a custom union or economic community, and the ACFTA is expected to enhance trade and
investment relationships in Southeast Asia. This will help ASEAN build the necessary condition of financial integration: solid real sector integration from trade and investment. This real-sector integration will shift ASEAN’s economic integration from trade in goods to service-related investment liberalization, trade in service liberalization, presence of natural person which represents free flows of people, and free flows of capital. By both theory and empirical findings, ASEAN can be expected to achieve the ASEAN Economic Community as long as the AFTA enlargement in the FDI home country from East Asia such as China, Japan, and South Korea is accomplished. Empirical data indicates that investment inflows from China and Hong Kong to ASEAN member states has significantly increased after the official implementation of tariff reduction on goods of ACFTA.

Based on the history, ASEAN has had long economic relations with Japan and China. D. Peng (2002) explained about regional integration process in East Asia and Southeast Asia, in particular informal economic networks. This research adopts a political-economy approach to explain that there are many invisible factors behind the Asian regional integration process. He adopted the flying-geese model of Japanese Regional Production Networks (RPN) as the main factors of economic integration in Southeast Asia in the early period after World War II, while recently Ethnic Chinese Business Networks (EBN) and China’s Special Economic Zones (SEZ) have increased in importance.

Peng argues that regional integration in East and Southeast Asia has a deeper definition than the mainstream theory of regional integration. Regional integration in Asia is defined as the process of building regional systems in order to increase common economic welfare within the member states. This definition is suitable to explain the “behind the scene” factors of AFTA. Meanwhile the mainstream theory of regional integration states that regionalism exists because of the different levels of trading blocs. Peng uses the term informal regional integration, which is achieved by similar ethnic groups, geographic proximity, and industrial division of labor, to differentiate it from the informal regional integration of FTA, custom union, common market, and economic union.

He found that East Asian regional integration has increased, in which advanced economic countries such as Japan become more aware of the huge economic potential in East Asia with China and South Korea and Southeast Asia as the center of the production networks.
Peng explained that RPN in Asia is known as the “flying geese model,” which was first proposed by K. Akamatsu in the early 1930s. This model explains that a production network led by Japan in Southeast Asia is similar to the flying geese form. Geese always fly in a group in which its flying form looks like a “V.” Japan is the leader of the flying geese model while the recipients of its FDI in Southeast Asia are followers. Japanese investors control decisions as the “leader of the geese” while ASEAN countries engaged as subcontracting producers follow the leader. RPN was established in 1970 and proved that in the medium run it could enhance both intra-industry trade (vertical integration) and investment creation (FDI inflows), while in the long run it increased intra-regional trade (horizontal integration) in Southeast Asia.

The RPN in Southeast Asia that increased trade and investment relations in ASEAN emerged long before ASEAN had AFTA. RPN was originally designed by Japanese investors to meet minimum cost of production at its regional level in Southeast Asia. Japan adopts a production network to achieve an increasing return to scale condition while producing input of a single output. Regarding the principle of the international economies of scale, Japanese investors find that each member state of ASEAN has its own comparative advantage in producing components. Japanese investors allocate their FDI in different countries depending on the countries’ different increasing return to scale in producing each component. Japan played as the home country of FDI and Southeast Asian countries played as host countries of FDI. Both home and host country have benefited from this production network. The home country reduced its production cost and increased its productivity while the host country increased its employment and received wages. The RPN increased the bargaining position of investors in the world while the host country could learn from the home country and join with its international production and trade network. The RPN was the original source of the regionalism that increased trade and investment relationships in Southeast Asia. The success story of RPN is the basic proposition for this study to argue that the ASEAN-PLUS framework is the most suitable way for ASEAN to enhance its trade and investment relationship. This will be the best alternative to fill the absence of a custom union in Southeast Asia, which, in other words, is ASEAN-PLUS as the means for ASEAN to enter the ASEAN Economic Community or Custom Union in 2016.
Peng also found that the Ethnic Chinese Business Network (ECBN) affects the regional political economy in Asia Pacific. He explains that ethnic Chinese are a powerful business force in Indonesia, Malaysia, Thailand, and the Philippines. Where ethnic Chinese are a minority, they successfully contribute high value added for those ASEAN member states. This explains why Chinese ethnic businessmen, on average, are wealthier than the original inhabitants. Peng explained that H. Wang (2001) argues that most business relations in China are based on trust and reciprocity rather than on legal binding systems. Business networks based on ethnic similarity are constructed under mutual trust instead of legal contracts. This non-formal agreement is known as *guanxi*. This is known as the root of the ECBN.

Kojima (1978) argues that Japan’s preference in applying international economies of scale by creating production networks had successfully built business networks among ASEAN member states. This network emerged as the discrimination trade model in which other non-member states outside Japan could not enjoy the benefits of implementing international economies of scale. Japan has created a regional production network in Southeast Asia. Unlike investors from the USA and EU, Japanese firms prefer to establish subcontracting relationships with their local partners. S. Urata (1993) explains that Japanese investors invest and produce components in different countries based on their different efficiency and productivity.

T. Aoki (1992) argues that FDI inflows to Southeast Asia produce a production network in ASEAN. This model generates vertical intra-industry trade between Japan and other countries in Southeast Asia.

### 2.3.3 Intra-regional Trade and Its Impact on FDI Inflows

The relationship between intra-regional trade and FDI inflows (investment creation) have been found in previous studies. Some of these found that non-member states would invest (FDI) in member states of a particular region when intra-regional trade among member states increases. According to J. H. Dunning (1990), economic community is the era of investment as he described with regard to the acceleration of US FDI inflows in Europe in the late 1950s:
U.S. based surveys … revealed that U.S. firms were stepping up their investments in the Community (European Union) in anticipation of the benefits likely to be incurred by firms producing within the Community and, no less important, to avoid the costs likely to be incurred by those remaining outside … It seems …, that by remaining outside of the EC, the U.K. had become less attractive to U.S. investors.

Some scholars also found that increasing intra-regional trade will stimulate FDI inflows. We now consider some of their reports.

Baltagi, Egger, and Pfaffermayr (2005) adopted a spatial econometric method with panel data analysis of EU member states in the period 1989–2001 using Generalized Method of Moments (GMM) and found that increasing intra-regional trade in Europe has significantly increased FDI inflows in Europe.

Daitoh and Kawamura (2009) found that a region would be more protective towards the non-member states as to impose higher external tariff rate to attract FDI inflows from those non-member states. The higher the gap between external and internal tariff rate, the more incentive for member states to attract FDI inflows. Economic cooperation such as Economic Partnership Agreements (EPA) considers the impact of inter-trade to inter-investment (FDI) than FTA; therefore, external tariffs have been included in EPA not in the FTA. In this article Daitoh and Kawamura develop a three-country model between one member state and two non-member states. This study finds an equilibrium of inter-trade and FDI inflows.

Daitoh and Kawamura illustrate that the impacts of the external tariff rate after a declining internal tariff rate following the agreement of EPA to non-member states are different. There are two possibilities: (1) the non-member state will switch its trade relationship to investment (Horizontal FDI creation), and (2) the non-member state remains its trade relationship (neutral effect). Their models basically observe the impact of FDI on tariff rate of the region wherein FDI is treated as an independent variable.

I. Park and S. Park (2008) found a strong economic relation between intra-trade and FDI inflows such that membership of RTA could not be effective without the country’s commitment to its domestic reform.
This study adopts a Gravity Model which was completed with Domestic Reform Index analysis, and uses panel data analysis of 24 OECD countries for 18 years of time series data (1982–1999). The independent variable for this study is average value of FDI stock while for traditional variables the Parks used GDP, GDP per capita, Distance, Skill Level, Trade Openness, and various dummy variables (Border, Ex-Colonization, Language, Year). This study introduces a new variable (Domestic Reform Index).

M. Blomström, A. Kokko, and S. Globerman (1998) argue that in the case of the North American Free Trade Area (NAFTA), the impacts of regional trade agreements on intra-regional trade (trade creation) and FDI inflows from extra regional (investment creation from non-member states) is more modest than is associated with the earlier stages of EU integration. This is the basic consideration for not generalizing the impact of intra-regional trade on investment creation (FDI inflows). This approach is also classified as a static approach, while for the dynamic approach the aim is to figure out the competitiveness within member states to attract FDI inflows using regional trade agreements.

R. MacDermott 2007 found that intra-trade integration encourages total FDI inflows. MacDermott formulated the relationship between regional trade agreements in North America including NAFTA, and total FDI inflows using fixed-effects panel data of gravity model on 55 OECD countries in the period 1982–1997 with the following equation:

$$\text{FDI}_t = f(\text{Host GDP}_t, \text{Parent GDP}_t, \text{NAFTA}_t, \text{DIST}, Z)$$

S. Donnenfeld (2003) found that if new countries join a regional trading bloc then it will receive more FDI inflows than intra-trade shares (proposition one). A reduction of trade cost from the regional trading bloc renders more inter-block FDI than inter-bloc trade (proposition two), and the more similar the states’ economic size the more incentive for FDI inflows. This chapter implements a mathematical approach using a Cournot Export Game on a profit maximization function. Donnenfeld found that in Europe a member state of the EU receives more FDI inflows than non-member states and this rising FDI occurs after they joined the EU. He compares FDI inflows of the member states of Spain and Portugal and that of non-member states of Norway and Switzerland. In this research Donnenfeld also argues that trade diversion (inter-bloc
trade) will be followed by investment creation (inter-bloc investment). He formulates his analysis using mathematical function as follows: there are n countries in which m countries are member state of regional economic organization while n–m are non-bloc. Each country represents a single firm with n domestic market and n–1 export market. The linear demand function is \( P = A - X \); \( P \) is price; \( A \) is total output in regional-bloc market that remains constant; \( X \) is total demand. The relation between \( P \) and \( X \) follows a linear demand function.

In total Donnenfeld formulates trade equilibrium, FDI equilibrium, and optimal tariff rate function for regional economic cooperation to assess the impact of regional economic integration on trade diversion, investment creation, and optimal tariff rate.

V. N. Balasubramanyam, D. Sapsford, and D. Griffiths (2002) modified the gravity model with an emphasis on theories of the relationship between intra-regional trade and FDI. Their model uses a cross-section approach for the year 1995 with 381 countries. The dependent variable is Bilateral FDI flows while traditional independent variables are GDP, Population, and Distance. They introduced new variables which are CPI (Corruption Perception Index) and EFI (Economic Freedom Index). They found that the effects of GDP and Population to Bilateral FDI inflows to host countries are positive while distance is negative (i.e., >3,300 km), which means the classical hypotheses are proven. They found CPI effect to Bilateral FDI inflows to host countries to be positive, which means the more accountable the host country’s government the more attractive the host country is for the external FDI investors. EFI effect to Bilateral FDI inflows is negative, which means the more interdependent the host country, the more attractive it is to external FDI investors. This proves that being a member of an RTA can make the host country more attractive for FDI investors.

Furthermore, Kindleberger (1966) proved that the impact of discriminative trade agreement to FDI could be negative (FDI outflows). The multinational companies had FDI outflowing from countries that joined trade agreements if the investment was dominated by local investors who received subsidies or members’ investors with privileges from the discriminative trade policies of trade agreements. This argument is known as FDI diversion since it was adopted from the principle of trade diversion.
Though there are many articles that discuss this issue, there are two major theories explaining the relation between intra-regional trade and FDI: (1) The horizontal FDI theory (Markusen 1984; Markusen and Venables 1998), which argues that non-member states will provide FDI in particular member states in a region to avoid trade impediments from being discriminated, and (2) The vertical FDI theory (Helpman 1984; Helpman and Krugman 1985), which argues that increasing FDI in a discriminative trade region will originate from the member states of the region itself due to the increasing intra-regional trade among them and the knowledge-capital model that combines both the horizontal and vertical FDI (Markusen and Maskus 2001). Theoretically, horizontal FDI is driven by lower trade cost following the tariff rates decrease that increases market size for non-member states, while vertical FDI is led by lower trade cost following the tariff rates decrease that opens new relations in trade (trade creation) within skill differences among member states. Meanwhile, the theory of regional economic integration starting with intra-regional trade to the ultimate objective can be seen later. Basic studies are available to support the explanation about intra-regional trade, and a description of them follows.

E. Helpman (1984) argues that FDI occurs because multinational corporations need to utilize cross-country economic advantage differences. This strategy is useful for reducing production cost. He constructed a formulation of production and investment network such as production factor \( (H \text{ for fixed input, } L \text{ for variable input}) \). Cost function will be \( ci(wL, wH) \). Helpman also modified the gravity model by formulating distance as \( \delta \), \( m \) as economies of scale, \( h \) as economies of scope, \( p \) as price, and \( x \) as output.

Helpman uses the assumption of an integrated economy, which he defined as free trade and costless factor mobility across geographical regions. He assumed that the international market is monopolistic instead of oligopolistic as he follows a Chamberlinian monopolistic framework, which believes that every country attempts to maximize its profit given the price and product variety of its competitor. He explained that trade patterns within countries in the same region or between regions occur because of different comparative advantage among countries holding a constant resource economy in the world. Helpman argues
that different inputs among countries are the main reason why countries are interdependent. Regarding geographic proximity, regional economic integration with the closest neighboring country is a rational option in establishing economic cooperation within countries led by their multinational companies.

H. Dieter and R. Higgott (2003) argue that economic integration at the regional level, both for the prevention of an impact from an economic crisis and to achieve monetary regionalism, has been occurring intensively in East Asia. They added that intra-regional trade and financial integration in Asia is most convincing under the APT framework. They explained that Asian regionalism is not to substitute globalization but to complement economic multilateralism. They found three essential progresses in the East and Southeast Asian regions with increasing interests in: (1) Monetary regionalism, (2) Bilateral Free Trade Agreements, to complement trade negotiations in the WTO, and (3) Sino-Japanese cooperation on trade and financial integration in the regions. This is because China and Japan share similar goals for enhancing economic cooperation in trade, investment, and finance in Asia.

Dieter and Higgott criticized Balassa’s approach on formal economic integration in particular for the first three steps (FTA, CU, and CM) that did not cover the role of monetary integration. They added that currently, global capital markets have made monetary cooperation become essential. Yet they explained that strong trade at the regional level (intra-regional trade) is a vital condition for achieving strong monetary or financial integration in the region. Different to Balassa, Dieter and Higgott argue that a supra-national institution is important for establishing monetary union. They quoted Jagdish Bhagwati’s statement that “good economic policy is often bad politics.” Therefore, the idea of a supranational body for ASEAN, open regionalism with trade enlargement to non ASEAN members such as ACFTA (ASEAN China Free Trade Area), or monetary integration in ASEAN will be opposed by domestic politicians, especially those who do not fully understand regional economic integration.

J. R. Markusen (1995) argues that horizontal FDI from a non-member state to a member state of the region is more likely to increase than vertical FDI from the higher skill of the member state to the lower skill of
it. In this article, Markusen noted that new trade theory with utilization of economic scale and product differentiation is more reliable than classic Ricardian comparative advantage; therefore, analysis of trade has to consider a specific case approach to a complete macroeconomic approach. He uses the term of FDI interchangeably with multinational companies to emphasize that FDI comes from multinational companies. He attempts to prove the relation between member state and non-member state under trade and investment relations for which he, mostly, focuses on the FDI issue as he found trade costs (transportation and discriminatory tariff rates) to stimulate non-member states to change their trade to FDI relationship with member states.

Markusen found that FDI is more profitable than licensing and less profitable if there is a possibility of a duopolist joint venture with local firms. Mathematically, he proposes: \( (2R - F) > (2M - F) > (R + D - 2F) \) whereas \( R \) is licensing cost (2 for two periods), \( M \) is subsidiaries cost (2 for two periods), \( F \) is physical investment cost (2\( F \) for two investments by two firms), and \( D \) is duopolist (foreign and local firms) cost. In general, Markusen adopted Dunning’s OLI framework (Ownership, e.g., patent, Location, e.g., comparative transportation cost instead of physical distance, and Internalization, e.g., R&D and technology transfer) in observing economic relationships, particularly FDI between surplus of FDI non-member state (home country) and recipient of FDI member state (host country). Markusen found that horizontal FDI is more likely to occur than vertical FDI between non-member state and member state with similar economic level, relative factor endowments, and technical efficiency. These circumstances are called “convergence hypotheses.” This proposition is different to vertical integration within a member state that was proposed by Helpman and Krugman (1985), which is based on intra-industry trade and a natural trading partner argument.

2.3.4 ASEAN Free Trade Area (AFTA): Historical Approach

ASEAN was established by Southeast Asian countries (Indonesia, Malaysia, Thailand, Philippines, and Singapore) on August 8, 1967 in
Bangkok. ASEAN achieved its first treaty—the Treaty of Amity and Cooperation (TAC)—during The First ASEAN Summit in February 1976 in Bali-Indonesia. This was also the first time that ASEAN discussed economic regional integration because it had never taken this issue seriously until the 1970s. This meeting recommended ASEAN to first introduce two most important factors of economic regional integration: PTA (Preferential Trade Agreement) which become the basis of her AFTA and ASEAN Industrial Projects (AIPs) with two schemes: ASEAN Industrial Complementation Scheme and ASEAN Industrial Joint Venture Scheme. Both of these became the forerunner of AICO (ASEAN Industrial Cooperation). Both of these essential agreements (PTA for intra-regional trade and AIPs for intra-industry trade) were signed in 1977.

The establishment of AFTA related to at least three factors (Bowles and MacLean 1996): (1) Changing of international exchange rate management to managed-float regime. (2) Shifting interest of private business sector to enlarge their market into regional level. (3) Increasing concern about ASEAN’s identity after the end of the Cold War in 1989. Identity is a factor that economists rarely use but in this field this factor needs to be observed in order to understand the complete process of regional economic integration. The Philippines proposed CU for ASEAN economic integration instead of AFTA during the 1986 Manila Summit, but this proposal was rejected by Singapore because it did not want to increase its external tariff due to its unilateral trade liberalization. As is known, CU imposes common external tariffs from member states to non-member states. Indonesia had a greater preference for AFTA rather than CU because of (1) ASEAN’s intra-regional trade was insufficient to become a CU, and (2) the difficulties of arranging harmonization of customs administration. They showed that the most successful example of a CU was the European Common Market of 1957. Another was Zollverein, which was established in 1834 by a large number of sovereign German states (Salvatore 2004). A Preferential Trade Agreement (PTA) is a discriminatory trade policy for non-members that can be divided into RTA (Regional Trade Agreements) based on geographic proximity and BTA (Bilateral Trade Agreement) or BFTA (Bilateral Free Trade Agreement) based on common interests regardless of geographic proximity. RTA can
be divided into two forms: FTA which regulates internal tariff among members but does not regulate external tariff between members and non-members, and CU which regulates external tariff between members and non-members.

Bowles and MacLean show that Thailand pushed the idea of a free trade area for ASEAN (AFTA) in 1991. This idea received much support from Singapore and finally in the Singapore Summit in 1992, AFTA was unanimously accepted by the ASEAN members. AFTA adopted the Common Effective Preferential Tariff (CEPT) among member states. CEPT was designed by Indonesia. Besides accepting the implementation of CEPT, ASEAN members achieved two other agreements: (1) increasing an elected Secretary General of ASEAN from Director General Level to Ministerial Status, and (2) enlarging ASEAN dialogue partners under the spirit of the ASEAN Regional Forum (ARF). The latter was the basic reason for ASEAN’s “open-regionalism principle.” In response to AFTA, the ASEAN member states also liberalized their investment regulations. This indicated the consistent commitment of ASEAN member states to their long-run objective of attracting FDI.

The general provision for conferring origin is as follows: (1) A product shall be deemed to be originating from ASEAN member states, if at least 40 percent of its content originates from any members. (2) Locally procured materials produced by established licensed manufacturers, in compliance with domestic regulations, will be deemed to have fulfilled the CEPT origin requirement; locally procured materials from other sources will be subjected to the CEPT test for the purpose of origin determination (Medalla and Balboa 2009, p. 11).

Bowles and MacLean explain that AFTA implemented two time lines for its members in achieving free trade agreements. ASEAN-6 (Indonesia, Malaysia, Thailand, Philippines, and Singapore) had to implement Inclusion List trade liberalization with a maximum 5 percent CEPT in 2002. ASEAN-4 members had a different time line. Vietnam implemented this in 2006, Myanmar and Lao PDR in 2008, and Cambodia in 2010. ASEAN-6 has achieved 0 percent CEPT in 2010 and ASEAN-4 in 2015. Since end of 2015 AFTA achieved full liberalization of CEPT at 0 percent tariff. This means ASEAN entered the economic community, an important step towards both the common market and financial inte-
As well as the ASEAN Economic Community for its regional economic integration, ASEAN has two other pillars: ASEAN Security Community (ASC) and ASEAN Socio-Cultural Community. The ASC is believed to be an essential pillar to maintain regional security, which positively affects economic stability, while AEC is also believed to increase regional welfare and also assist regional security stability. The relationship between economic stability and security are vice versa at ASEAN regional level.

Bowles and MacLean (1996) found that scholars had created more theories on regional integration after World War II. The focus of the economic aspects of many of these integration theories is European economic integration. Yet some of them are still relevant to be adopted and adapted to the case of ASEAN economic integration. Most of them are related to trade creating. Bowles and MacLean suggested in particular that economists should use a mixed approach rather than a single statistical and quantitative-based approach.

Bowles and MacLean argue AFTA was established before its founding member states had gained welfare enhancement from their intra-regional trade. In fact, AFTA was established to generate welfare-maximization through its official intra-regional trade. Bowles and MacLean added that the desire to attract investment (FDI) is the ultimate objective while the desire to increase intra-regional trade is the intermediate goal. ASEAN formed its regional trading bloc at a time when it had a low intra-regional trade proportion. However, Ravenhill (1995, p. 857) found that prior to the establishment of AFTA, intra-regional trade had grown six-fold between 1985 and 1993. This study confirmed that natural trading partners (Krugman 1991) can be established after the implementation of PTA—this finding does not necessarily follow the EU model.

H. E. S. Nesadurai (2003) argues that the Bali Summit in 1976 was motivated by the end of the Vietnam War, which symbolized the decrease of the Cold War tension in Southeast Asia. TAC has principles of sovereignty, non-use of force, and non-interference over domestic affairs. ASEAN prefers a soft-regionalism type, which is proudly known as the ASEAN Way. In the 1980s, ASEAN membership expanded with a new member joining, Brunei Darussalam, and in the 1990s expanded further with four new members (Cambodia, Lao PDR, Myanmar, and Vietnam).
Five founding members joined by five new members means ASEAN now consist of ten members. In 1990s ASEAN achieved a more serious step in its economic regional integration by establishing AFTA.

Nesadurai also explained the three stages of the AFTA implementation. They are: (1) Identification stage in period of 1991–1995. At this stage, the member states of ASEAN had intensive talks about tariff line and the time-line of free trade area implementation. (2) Expansion stage during the period of 1996–1998. At this stage, the member states of ASEAN implemented the acceleration project and detail programs. They stated a new timeline to implement full liberalization for the original ASEAN-6 in 2003. (3) Because of the financial crisis that faced ASEAN in 1997, they changed this “expansion stage” to a “consolidation stage.” This took place between 1999 and 2002. At this stage, ASEAN member states came under pressure, which made them take the implementation of trade liberalization or AFTA seriously.

Nesadurai shows that some scholars argue AFTA formalization was motivated by: (1) the end of the Cold War, 1989, (2) settlement of the Cambodian conflict, (3) augmenting economic integration in the EU from a common market to financial integration after the signing of the Maastricht Treaty, (4) opening free market access for Mexico in the USA after NAFTA was officially launched. It was harming ASEAN in two ways: The USA is one of the largest destination markets and Mexico is one of the lead competitors for ASEAN products. AFTA represents a progressive institutional development of ASEAN economic integration with its “inter-governmental” mechanism. There are several progressive CEPT mechanisms such as: Rules of Origin to prevent re-export that is in line with tariff deflection and details on Operational Procedures. AFTA became legal-binding for signatories. She argues ASEAN with its ASEAN Way also adopts “soft-regionalism” for its AFTA by implementing flexibility for exceptions without penalty and executing CEPT based on the lowest common denominator on its internal tariff harmonization. AFTA is considered as non-binding and non-punitive in mitigating potential conflict within members. ASEAN provides room for flexibility for excluding particular products as temporary lists by concerned members. For instance, Malaysia with her national automotive industry, Thailand with her petrochemical industry, Philippines which signed CEPT at a lower tariff level over
textiles, and the iron and steel industry, and Indonesia over its strategic national industries.

Nesadurai adds that beside tariff reduction, AFTA also recognizes non-tariff barriers (NTB), reducing and simplifying custom clearance procedures, harmonization of sanitary and phytosanitary, product standards, and mutual recognition on the conformity requirement assessments. NTB is negotiated at a bilateral level and any private company may find NTB violations and report to the ASEAN Secretariat who will request the concerned country to verify and clarify. This may help remove the problem if proven. ASEAN members prefer bilateral diplomatic consultation and negotiation to keep the political relationship harmonized.

R. E. Baldwin (2006) argues that the management of the implementation of a vision is more important than the vision itself in the particular case of East Asian regionalism. In his research Baldwin proposed ASEAN as the most appropriate economic regional integration to do that. He argues that ASEAN regional frameworks trigger a domino effect to such similar arrangements and start to generate a “noodle bowl” in Asia. In 2005 in East Asia and Southeast Asia there were approximately 57 FTAs.

Baldwin found that individual direct BFTAs among them are different; for example, the BFTA between Malaysia and Indonesia is different from that of Singapore and the Philippines. He queried the effectiveness of AFTA as he argued that utilization under 50 percent is low compared to that of Europe. He added that individual direct BFTAs would make the “noodle bowl” more complex. Therefore, the most suitable mechanism for East and Southeast Asian is to have four pillars of AFTA enlargement: AFTA and its enlargement to China-AFTA, Japan-AFTA, and South Korea-AFTA. These are for trade and investment relations, while for financial integration as he stated earlier the APT is essential. Baldwin wrote that APT has at least 6 advantages: (1) it has close cooperation between Japan and China, giving the organization a form of leadership; (2) it has a track record of economic cooperation; (3) it is not seen as a new creature of a single regional power; (4) it is, thus, not seen as a threat to countries outside the framework; (5) it has a natural intra-regional trade that is well managed; and (6) it has an open-type regionalism that is easier for other countries to join. In order to ensure the four pillars and for the APT to work very well in achieving economic efficiency he
suggested East Asian and Southeast Asian countries should: (1) mitigate hub-spoke bilateralism problem to avoid small countries in this region entering the “spoke trap”; (2) avoid the noodle-bowl problem; and (3) create an open-regionalism principle.

2.3.5 ASEAN Free Trade Area (AFTA): Political-Economy Approach

The Singapore Institute of International Affairs in January 2007 in its report titled *Regional Integration, Trade and Conflict in Southeast Asia* (http://www.iisd.org/) explained about two important factors that had motivated the establishment of ASEAN: economic and political stability. Economic motives come from a “market sharing” function that is partly demand driven (consumer surplus) and partly supply driven (regional winning producer surplus versus local firms—losing trade creation and non-member firms—losing trade diversion). This economic motive emerged as AFTA. Another economic motive in Southeast Asia regional cooperation is a “resources-pooling strategy” (RPS). It is similar to the EU’s experience on common resource management of coal and steel (ECSC). RPS is driven by the producer’s interest in controlling the production side of a particular commodity. It is an oligopoly-type market. RPS in Southeast Asia was implemented by some limited members of ASEAN, and is called a sub-regional cooperation.

Regional stability is driven by threat factors. These threat factors can be classified into two: inter-country and domestic problems. Inter-state threats have two types: (1) Traditional threats such as (a) the spread of communism, which affects the old conflict between Indonesia and Malaysia in 1960s, Indonesia and East Timor during the Cold War in the 1970s, (b) territorial disputes between neighboring countries such as Malaysia and Philippines on East Sabah, Malaysia, and Singapore on Batu Puteh, Malaysia, and Indonesia on Amabalat Block; (2) Non-traditional threats such as (a) regional terrorism network, (b) transnational crimes, (c) pandemic problem such as SARS, H5N1-Influenza virus, H1N1-Swine virus, (d) regional environment disaster such as haze pollution, (e) arts and culture over claimed, (f) illegal immigrant workers, (g) smuggling
products such as oil, illegal trading due to world oil-price hikes, re-selling exploitation due to trade deflection, etc.

Regional economic integration is important for the following reasons: (1) Reducing dependency ratio to global economy. Recent global financial crises that turned into an economic crisis in 2008 reminded countries of the importance of enhancing their domestic and regional economic cooperation. Asia was lucky to have avoided this crisis because the crises started in the USA and the EU and its dependency to those markets is relatively low compared to Africa, Latin America, and the Middle East. (2) Balancing the other regional economic power. Nowadays, almost no country is excluded from regional economic cooperation. Every country is optimizing the benefits of joining a regional economic organization regardless of the explicit costs because the opportunity cost from being excluded is much higher than the cost of joining. The prisoner’s dilemma has put each country in favor of joining a regional economic cooperation rather than not. (3) Increasing bargaining position of each country globally. Negotiations under the regional umbrella help a country’s voice to be more heard more clearly. The process has to be a two-level game at which each country needs to convince the regional economic organization to recognize its interest as being the region’s interest, and if the regional organization agrees, this position will be represented in the global forum as the region’s voice. (4) Regional economic cooperation is a battle training field before a country enters the global market where it is more difficult and challenging in terms of competition. (5) Cooperation among countries within geographic proximity or cross-border lines is the best way to avoid potential conflict or hard competition among them. From an economic perspective, the regional-level trade agreement can start with the establishment of the FTA. Unfortunately, some countries have started with BFTA or sub-regional agreements which involve several countries.

In addition, the most challenging obstacles that ASEAN has to deal with are: rule of origin, country of origin, and underutilization of AFTA by firms. Daquila and Huy (2003) argue that some factors make ROO (Rule of Origin) or COO (Country of Origin) difficult to implement. Some of them are: (1) determination of which country produces the product may often not be straightforward as the product may be produced by
several countries depending on its components; (2) the rules that define the ROO vary across countries making it complicated to achieve a common classification for the ROO of each product; and (3) administrative costs become high due to the difficulties in defining and classifying the ROO based on different rules across countries.

Carriere and de Melo (2004) finds that the estimate cost of ROO in NAFTA to be around 6 percent of the value of goods traded while Manchin and Pelkmans-Balaoing (2007) found it to be 25 percent in ASEAN. The research of Hayakawa et al. (2009) suggests that the cost should be around 5.2 percent. Medalla and Balboa (2009) suggest a significant reform in ASEAN in order to minimize the cost of obtaining a COO certificate by simplifying and easing standards in administrative procedures and the certification process.

Hayakawa, Hiratsuka, Shiino, and Sukegawa (2009) argue that the cost of using FTA can be higher than its benefit. These costs consist of both administrative costs (COO certificate) and opportunity costs (substitution incentive to export and import from host countries). It is very common for the host country in ASEAN to provide trade incentives such as low import tariff to stimulate FDI. Foreign investors will enjoy such tariff incentives if they invest in the host country or if they import inputs for manufacturing purposes for both objectives: to export or to fulfill domestic market demand. The benefit of using FTA is simply the difference between its MFN and CEPT tariffs. This research by Hayakawa et al. assumes that the more diversified the origin of a firm's procurement, the higher their output volumes and exports are the larger the difference in the operating profit between FTA rates and general rates (p. 10). In other words, this indicates that firms with many connections in ASEAN are more willing to utilize AFTA tariff facilities since its potential benefit is high. If cost and opportunity cost of using FTA are higher than its benefit, then the utilization of FTA will decrease. In particular, for AFTA, the utilization rate of export to total export (intra trade) is only around 15–20 percent (2003–2006) while the ratio of import to total import (intra trade) is only 11–16 percent (Hiratsuka et al., p. 2).

Hayakawa et al., show that based on the survey of Japanese-Affiliated Firms in ASEAN, the proportion of exporters using FTA to total exporters in Indonesia is 43 percent, while 22 percent intend to use FTA and
23 percent have no intention to use it. In Malaysia 26 percent of exporters use FTA, 19 percent intend to use it, and 55 percent have no intention to use it. In Thailand 26 percent of exporters use FTA, 31 percent intend to use it, and 43 percent have no intention to use it. While for importers, the proportion of those using FTA to total importers in Indonesia is 33 percent, while 34 percent intend to use it, and 33 percent have no intention to use it. In Malaysia 20 percent importers use FTA while 21 percent intend to use it, and 59 percent have no intention to use it. In Thailand 28 percent use FTA while 29 percent intend to use it, and 43 percent have no intention to use it. In general, exporters and importers in Indonesia have higher interest in using FTA than those in Malaysia and Thailand. Overall, the utilization rate of FTAs in ASEAN is quite low.

J. Bhagwati, D. Greenway, and A. Panagariya (1998) explain the relationship between discriminative trade policies—Custom Union (CU) or PTA (Preferential Trade Agreement including FTA or FTA and BFTA)—to non-discriminative trade policy of the WTO. The CU concept, adopted from Viner (1950), is regarded as the first phase of regionalism with FTA as the second (Bhagwati 1991). These are basically discriminative trade policies opposite to the GATT with MFN tariff. Bhagwati in 1991 first proposed the idea of complicated and overlapping trade agreements at each level in his article through the question: “Will PTAs be ‘stumbling blocks’ or ‘building blocks’ in the freeing of trade multilaterally?” This question led him to find the “spaghetti bowl phenomenon.”

Medalla and Balboa (2009) confirm that the administrative costs of using FTA in the process of obtaining COO certificates are high and administratively burdensome. This explains why only productive firms are willing to utilize FTA since small exporters or SMEs would not be able to deal with these issues. The cost of FTA’s utilization (ROO or COO) in ASEAN is also too expensive compared to other regional organizations.

Takahashi and Urata (2009) found that FTA (Japanese firms in Southeast Asia) are mainly used by large-scale and productive firms. In general, AFTA is still underutilized by manufacturing industries due to lack of information about it and the high cost of applying for it. Research of Hayakawa et al. and Takahashi and Urata shows that firms most willing to utilize AFTA are those that are productive and have control over a large number of ASEAN’s production networks.
Yoshimatsu (2002) found that one of the most influential factors supporting the regional integration process from the perspective of the MNC is the need to have large economies of scale in order to achieve production efficiency. This finding is in line with the argument that the production network is an essential factor behind the establishment of an economic regional integration organization. In this research, Yoshimatsu attempted to observe the bargaining, negotiation, and adjustment process in achieving common resolution or a win–win solution between the interests of the MNC and that of governments in developing trade and industrial cooperation in Southeast Asia. Governments make policies after considering domestic societal groups. Some domestic groups would benefit from regional cooperation while some others would suffer. From the political standpoint, a government takes the decision based on total high net benefit rather than organized lobbying from particular groups. Firms decide to encourage the government to be involved in regional cooperation after they have calculated that net benefit from regional production networks and regional consumers is higher than that of national production networks and local consumers.

Yoshimatsu argues that economic reasons behind the establishment of regional organizations are very important bearing in mind that a region like Southeast Asia consists of various different political systems, economic development levels, cultural traditions, and religions. This research found that regionalization around the world massively emerged after the 1970s because (1) the USA departed from multilateral commitments due to its economic decline, and (2) the fixed exchange rate regime collapsed. Not only regional cooperation based on geographic proximity, ASEAN also has regional cooperation enlargement such as that proposed by Malaysian Prime Minister Mahathir Mohamad on the East Asian Economic Caucus Concept in 1991.

### 2.3.6 Theory of Comprehensive Regional Integration

B. Balassa (1961) explains theory and empirical evidence from the EU experience. He explained that the regional economic integration process...
in Europe started with an FTA and moved to a CU, a common market (CM), which then culminated in a single monetary union (SMU) with a single currency (SC). More generally, regional economic integration is transformed from trade (via an FTA), investment (through a CU and a CM), to financial integration (an SMU and an SC). This theory has been proven by the EU with a similar integration process prior to its circulation of a single currency, the Euro. The theory was first proposed by Jacob Viner in 1950 and continued by Bela Balassa in 1961. They argue the need for formal institutions to support economic regional integration.

Balassa added that other factors outside economics are also important. Balassa divided the process into two forms: static and dynamic, where he argues that CU is superior to FTA. Yet CU is a static form of economic regional integration because it neglects the progress of technological change and productivity or TFP. He added that CM opens the important role of TFP to economic integration. This is because CM provides a bigger market than just trade of goods to investment movement from local to regional space. The bigger the market, the freer the flows of goods, capital, and people, then the higher productivity and incentives to compete. He defined CM as a dynamic form of regional integration.

At this point Balassa discussed that economies of scale is equal to the size of the market. Joining regional economic integration will increase economies of scale of any country. Regional economic integration opens the opportunities for investment, specialization, technology, and know-how transfer, which in turn will increase the competitiveness of a country. On economic union, Balassa explained that harmonization of national policies into a united regional policy is important. This covers various policies such as monetary, fiscal, social, and counter-cyclical. Harmonization will generate economic efficiency and capacity to adjust any economic gaps among the member states. Balassa argues that a free flow of capital regime must be completed with a fixed exchange rate policy. He also suggested that cooperation among the central banks of member states is sufficient, therefore an economic union does not necessarily need a supra-national authority.

There are four levels of integration: FTA, CU, CM, and economic union. The basic theory that intra-regional trade affects investment
inflows is “Custom Union (CU) Effect.” This is adopted from the EU’s experience that CU generates “tariff factories,” which make trade diversion higher than its trade creation effect, which in turn will generate “investment creation” from non-members. FTA focuses on free trade while CU emphasizes stimulating investment from non-members. CM is the condition that when trade and investment are free of tariffs then the movement of people will also become free. Once goods, capital (investment), and people movement are free, then the need to have a single currency will increase. This condition is named Optimum Currency Area (OCA). In sum, the process of regional integration is divided into three main phases: trade, investment, and finance.

J. Viner (1950) explained the static welfare gains effect. He argues that the higher percentage of intra-regional trade the greater the welfare gains for its members, and that this will attract non-member states to join such regional economic organizations. His proposed theory on welfare-enhancing trade-creating effects is that they outweigh welfare-reducing trade-diverting effects. His theory concludes that countries will establish an economic regional integration organization if such countries have welfare-maximizing trading blocs. This is called the “rational economic approach.” His theory has become the basis of regional economic integration analysis, in particular to assess the benefits and cost of economic integration, which is also known as a comparative assessment between trade creation (intra-regional trade effect) and trade diversion (investment creation effect).

J. Frankel (1997) explained the notion of the “natural trading bloc” in that nations establish regional trading blocs because of their natural trading relationships. He further explains three approaches to calculating regional economic integration in terms of intra-regional trade. He argues that economic integration is different between real-sector integration (trade and investment) and the financial-monetary sector (financial integration).

J. Pelkmans (1980) criticized the availability of sound theories on economic regional integration. He states that the theory of FTAs and CM are underdeveloped, while theories on CU have very limited application, and those on optimum currency area (OCA) lack implementability. However, the main objective of CU is to protect industrialization for
the entire region. Therefore, if a region establishes economic cooperation while its members’ economic structures are heterogeneous then most likely this region would result in FTA. However, if the members of the region have similar economic structures in manufacturing and similar economic levels then they are likely to choose a CU.

J. Schott (1991) explained that successful trading blocs of economic regional integration are affected by: (1) similar levels of per capita GNP, (2) geographic proximity, (3) compatible trade regimes, and (4) political commitment to regional organization. Schott argues that international environment is the essential factor behind the successful story of regional economic integration; therefore, multilateral economic cooperation should be part of the theory of economic regional integration. He added that factors that affect economic regional integration are not only economically logical but also politically, yet unfortunately economic scholars in this field still show very little attention to it. Schott suggests the commitment to regional integration is among the most important elements in regional integration. It is essential in achieving a win–win solution between domestic interests and regional benefits. A government in a regional organization has an important duty to convince local firms that have been affected by regional trade liberalization that in the long run regional commitment will increase competitiveness of local firms towards their competitors in the region. This will also be a battle training ground for the members before they compete in more liberalized markets at global level. Governments have to harmonize regional interests into domestic benefit for both local firms and consumers.

R. Lawrence (1999) observed the economic reasoning behind regional integration or discriminative trade liberalization. In contrast, economists believe that economic liberalization is better if it has been achieved through a non-discriminatory base at which welfare optimization will occur. Lawrence implements two main reasons for regional economic integration: (1) lobbying from various interest groups for their own benefit, not for the whole economic welfare; and (2) no other alternative because non-discriminatory economic liberalization faces huge barriers of asymmetric information, global uncertainty, oligopolist markets, and imperfect labor and capital mobility. He found that the multilateral economic liberalization of the WTO is the best way to maximize
total economic welfare, but the multilateral organization does not satisfy enough, in particular failing to accommodate what he calls “deeper integration.” Therefore, under these unfortunate circumstances discriminatory economic liberalization at regional level is the most suitable way. This makes the current motivation of regionalism to be different from that in the early years after the end of World War II. Recently, regionalism is part of a cautious economic liberalization towards world asymmetric information and global uncertainty.

Lawrence argues that regionalism will complete multilateralism as long as it adopts an “open principle” that allows the regionalism enlargement to spread to non-member states if feasible. He found that the need for regionalism mostly comes from the natural demand of regional production networks (FDI flows) instead of trade relations. Therefore, regionalism becomes a deeper economic integration than multilateralism because the multilateral organization of the WTO does not handle production networks issues. He believes that economic regional integration was born because of investment networks rather than trade relations. Yet he argues that a country’s decision to join or not to join depends on domestic factors such as local private sector lobbying, the domestic trade regime, and national policy makers rather than international pressures. Lawrence argues that economic integration at a regional level will continue in the long run as long as instability in the domestic political economy after a country joins the regional economic cooperation can be handled.

J. J. Polak (1962) addressed the motives of international cooperation; whether the cooperation was for adequate rate of growth, full employment, or reasonable price stability. He explained about the rules of the game for such international or multilateral cooperations and the solutions for overcoming failures and errors. In this article he addressed the Organization for Economic Cooperation and Development (OECD) and the International Monetary Fund (IMF), two international economic organizations that were in their formative years. He stated that policy makers have to have the capability to identify “targets” (something that we would like to achieve) and “instruments” (something that we can use to achieve the target). He classified stability of exchange rate as an intermediary goal while price stability and real economic growth were classified as dynamic goals and balance of payment (BoP) as a tool. He
argues that reasonable price stability is compatible with the condition where a nominal wage increase higher than the inflation rate means the increase in real wages are positive. This could happen if real economic growth increases more than the inflation rate.

Polak added that BoP has a role as a tool to achieve the objective, yet later it may be a problem. For instance, a deflationary policy makes domestic product cheaper and competitiveness increase. This will lead to a BoP surplus. He mentioned that BoP also has a connection to the government budget (fiscal policy). Excessive or expansionary fiscal policy could increase the inflationary effect, thus decreasing a country’s competitiveness and leading to a deficit BoP and crowding-out effect on investment, which can also lead to a deficit BoP. In terms of coordination within countries (international or multilateral), for example, in setting up interest rates, those countries have to consider each other’s domestic economic conditions, in particular inflation rate, since it vitally affects the nominal exchange rate. He explained about two essential elements in building international economic cooperation in both trade and financial: (1) full and detailed information about each member’s economic condition; and (2) intensive consultation between the international/multilateral organization and each member’s related government officials.

Sproul (1967) noted the higher risk to monetary policy in uncertain conditions due to decision makers making statements that are scanned and analyzed by the press. This could cause them to panic and become uncontrolled. He argues that counter-cyclical policy should be matched with maximum sustainable economic growth. This means that fiscal expansion is an appropriate policy as long as it is accompanied by a cautious monitoring system. The basic monitoring would be coordination between fiscal and monetary policies. He stated that such coordination is vital as it affects employment, money creation, inflation rate, and economic growth itself. Therefore, integration in monetary policies among countries absolutely needs to be interconnected and coordinated with their national fiscal policies. This coordination must be designed in order to accommodate not only short-run but also long-run economic interests such as providing economic stability to convince long-term physical investment inflows.

Economic activities are recorded in the GDP under three different approaches: production, value added, expenditures and incomes. From
a value-added perspective, GDP is divided into sectors that classically consist of: (1) agriculture including fishery, forestry, crops, agribusiness; (2) energy and mining; (3) manufacturing industry; (4) electricity, gas, and water; (5) construction; (6) trade, hotels, and restaurants; (7) transportation and communication; (8) financial services; and (9) government services and others. Sectors 6–9 are classified as service sectors. Unlike goods that can easily be exported, the service sectors are mostly non-tradable sectors because after the value added is domestically produced, their transactions are only possible with the physical presence of both producer and consumer. Trade liberalization on goods that are indicated by tariff barriers are more obvious and easily measured than service liberalization.

Regarding the unique nature of the service sectors, WTO formulated service liberalization separately from trade liberalization. The WTO distinguished four modes of service sectors supply in its General Agreement on Trade in Services (GATS) which became effective in January 1995. They are (1) cross-border supply, (2) consumption abroad, (3) commercial presence, and (4) presence of natural persons. These modes are applied to all service sectors with two exceptions according to: (1) Article I.3 Services supplied in the exercise of governmental authority. This includes social security and basic public services that are provided at non-market conditions or on a non-commercial basis in education and health; and (2) an annex on air transport services such as air-traffic rights and services directly related to such rights.

Despite implementing Most Favored Nation (MFN) status, which emphasizes transparency, and National Treatment (NT), which emphasizes market access, GATS still accommodated important national policy interests such as public morals, public order, and health of humans, animals, and plants, and the annex on financial services for the prudential reasons of protecting investors, depositors, policy holders, and the integrity and stability of financial system. Each member is also allowed to temporarily restrict trade on a non-discriminatory basis if there are significant reason such as serious BoP deficit.

Based on these economic integration theories, what has ASEAN achieved for her economic integration process recently?
2.3.7 **Overview: Comprehensive Regional Economic Integration in ASEAN**

ASEAN member states signed the ASEAN Framework Agreement on Services (AFAS) on December 15, 1995, less than one year after WTO launched GATS. The AFAS was signed at the fifth ASEAN Summit in Bangkok by the ASEAN Economic Ministers. As a regional economic organization with discriminative interests, the AFAS focuses on market access and national treatment instead of MFN and transparency. ASEAN has officially stated that AFAS is consistent with GATS and is designed to complement it, ASEAN even titled it GATS Plus. On September 2, 2003, the AFAS applied the “ASEAN Minus X” principle by which service liberalization does not require all members to be ready. This means those members who are ready to liberalize trade in their service sector will not need to wait for other members that are not yet ready. This makes AFAS different from the ASEAN-PLUS model because the latter requires a complete commitment from all members before applying liberalization to trade in goods. Each member offers different service sub-sectors to be liberalized depending on its readiness. In February 2009 Indonesia, for instance, offered 68 service sub-sectors.

The ASEAN Economic Community in 2016 is a sign of this achievement. This will increase direct investment flows in Southeast Asia, a free flow of capital that needs to be followed by service-sector liberalization. This is why the AFAS prioritized trade in service liberalization on financial services, transportation and logistics services, and presence of natural persons. These priorities can be seen in the official progress report by the ASEAN Finance Ministers and ASEAN Transport Ministers on the AFAS commitment packages. In addition to that, ASEAN has also achieved Mutual Recognition Arrangements (MRA) to facilitate easier movement for professionals such as Engineering services (signed on December 9, 2005 in Malaysia); Nursing services (signed on December 8, 2006 in Philippines); Architecture services and surveying qualifications (signed on November 19, 2007 in Singapore); and Medical practitioners, Dental practitioners and Accountancy services (signed on February 26, 2009 in Thailand); and the accounting profession in 2014. Another indicator showing that AFAS
is designed to complete trade and investment relations is the approach of measuring Mode 3 (Commercial presence) which adopts market access for FDI investors. For Mode 4 (Presence of Natural person) some observers use the net of worker remittance. Mode 1 (Cross-border supply) and Mode 2 (Consumption abroad) are still under discussion.

The EU completed its economic community within 20 years from 1967 to 1987 and took only ten years to complete the FTA. If ASEAN needed around 23 years to complete the ASEAN FTA from 1992 to 2015, then roughly estimated it needs at least 45 years to complete its economic community before it achieves a common market. Moving to financial integration such as single monetary union and single currency is an option but changing the economic community into a common market is a natural process. This needs trade-related service liberalization, service-sector liberalization, commercial presence of open market access, and natural person presence of non-discriminatory national treatment. Given this, the economic community according to the EU’s experience is the longest process in the regional economic integration. ASEAN needs to be consistent and persistent.

One of the biggest challenges in harmonizing liberalization on the trade-of-service sector at the regional level is the difficulty in identifying the service sectors’ value-added and employment ratio because many of ASEAN’s member states are developing countries where many of their service-sector providers are non-formal or unregistered small enterprises. This makes the assessment of service-sector liberalization in ASEAN a difficult task due to the significant gap between the service-sector data in balance of payment or Foreign Affiliates Trade in Services (FATS) and the reality.

Even if the service sector had been liberalized, some administrative barriers would still be found in some member states such as licensing, joint venture obligations with the limitation of foreign equity share, requirements for transfer of knowledge and skill from foreign workers to host country. Other barriers include foreign workers having to pass local qualification examinations even if they already have an internationally recognized certificate, requirements to speak local languages, and the prohibition for foreign workers to be commissioners or top level
executives in domestic firms. These barriers could generate retaliation from other member-state partners and in the end result in a deadlock of trade-of-service liberalization. This is what makes liberalization in trade of services more complicated than that of trade of goods. Yet due to the ASEAN commitment to achieve AEC in 2015, trade in the service sector must be liberalized following AEC in particular service sectors that are connected with the AEC’s 12 priority products (rubber-based products, agriculture products, fisheries, wood-based products, textiles and clothing, electronic, automotive, air travel, healthcare, logistics, tourism, and e-ASEAN).

Trade-of-services liberalization must accommodate local investment regulations to prove that the service sector connects trade and investment. The next step is financial integration because this will complete trade and investment integration. Financial development is essential to connect savings and productive investment, as well as to prevent inflationary macroeconomic policies and to help countries avoid contagious global or regional financial instability.

In addition to service liberalization, ASEAN is also intensively involved in establishing an ASEAN economic enlargement. According to the Bali Concord II which was declared on October 7, 2003, AEC is an ASEAN-PLUS framework, which includes extending AFTA to more than just free-trade movements. It is believed to shift ASEAN economic integration from intra-trade liberalization to free flows of capital and people in the manner of a CM. One of the AEC’s main objectives is integrating trade–investment relations. The Bali Concord II is designed as a gradual approach in achieving trade–investment relations starting from 11 priority sectors. These include: healthcare, air transport, tourism, e-ASEAN, electronics, automotive, textiles, wood, fisheries, agriculture in general, and rubber. As long as ASEAN is consistent in preventing re-exports to protect its trade deflection by implementing ROO, its economic integration phase will replace a CU and its move will be shifted to CM. ASEAN has named it a “Single Market Policy,” which will help ASEAN to achieve “financial integration.”

In total ASEAN has around 45,000 tariff lines. There are two lists waiting to be removed: (1) General Exception List (292 lines, less than 1 percent of total lines for ASEAN-6 and around 14 percent for ASEAN-4).
This list is designed based on national interests for health, security, and cultural reasons. Under this exception, Indonesia initially excluded 50 products, Malaysia did not exclude any products, and Thailand excluded 26, Philippines 28, Singapore 120, while Brunei excluded 243 products (Ravenhill 1995). (2) Temporary Exclusion List (218 lines, less than 1 percent of total lines for ASEAN-6 and around 25.09 percent for ASEAN-4). This list is formulated based on common interests among members, and is temporary during the liberalization discussions. In terms of trade, ASEAN has a high intra-trade intensity which is dominant in similar products of HS 84 and HS 85. ASEAN’s intra-industry trade is at an increasing rate of around 11.6 percent per annum.  

Historical records show that ASEAN’s objectives do not necessarily match its current condition. Yet this is normal for a vision. “The initial goals of ASEAN and many of its public declarations have not matched its actual fields of activity” (Kahler 1995, p. 23). ASEAN shows a rather slow progress from what it has achieved as a commitment to what it is able to implement. For example, consider the commitment to a preferential trade arrangement (PTA) in 1977 when its implementation (AFTA) was only signed in 1992. An even longer duration has taken place for the AIPs that was also committed to in 1977 yet its implementation (AICO) is still yet to take place. Therefore, in its sluggish implementation, ASEAN shows a better progress in intra-regional trade than her intra-industry trade. ASEAN has been rather slow in handling its economic issues because its establishment has been more geared towards political issues.

ASEAN has the ASEAN Chambers of Commerce and Industry to support this organization. Bowles and MacLean argue that AICO will achieve its ultimate objective in line with the increasing interests of local business players to be regional business players.

Formal theories on regional economic integration explain that economic integration starts with free flows of goods to free flows of services, people, and capital, and finally in political union or single currency. The free flows of goods are achieved through the implementation of PTA within countries with geographic proximity known as a free trade area (FTA) and CU. FTA regulates common tariff rates among members while allowing external tariff between members to non-members to be
decided by the members involved. The CU regulates both common internal tariffs between members and common external tariffs between members and non-members. The CU has been proven to stimulate investment creation (FDI) from non-members to members because it generates a higher trade diversion effect than trade creation effect.

The free flows of goods will be followed by the free flows of services because trade (export and import) always comes with service sectors such as insurance, transportation, loading and unloading, financing, and government services such as custom clearance. Free flows of services will be followed by free flows of capital since CU causes investments (FDI) to increase. This increasing FDI needs the free movement of people because it can generate production networks of real sectors that have been established under the differences of economies of scale related to the different specialties of the human resources as the production factor. The increasing FDI will stimulate the emerging short-run derivative market such as stocks for completing long-run foreign direct (physical) investment (FDI). At this level, economic integration enters the moment of free flows of service sectors, long-run capital (FDI), short-run capital (derivative), and free movement of people. This level is called a CM.

Free flows of goods, services, capital (long-run and short-run), and free movement of people stimulate the need for single monetary policy in the region to reduce transaction and administrative costs in monetary sectors. At this level, members need a common exchange rate because they no longer need to change the currency for their regional trade and investment connections. The common exchange rate requires a common currency which cannot be achieved without a single monetary policy. Given that monetary policies are connected to fiscal policies, then at this stage the region needs a political union (PU) because fiscal policies are the backbone of public policies. The latter is strongly connected to politics because it limits and regulates maximum shares of both fiscal deficits and public debt to GDP. We can note that not all of the EU members joined the Euro zone as there was unwillingness to transfer local political power to the region supranational body. A PU is also known as a Single Monetary Union (SMU), as it is in fact a common monetary system that must be completed with the strong commitment of each country to release its political policies over government budgets or fiscal policies
so they can be harmonized under the common monetary policy of the region. This level needs a strong commitment of regionalism because it requires discipline and strong regional economic motivation.

Even if the region chooses to use an intergovernmentalism principle, at this level it still needs both legally binding and supranational principles because SMU needs full support from political or fiscal policy. This will emerge into a single system of central banks in which independent central banks in each member state need to be pooled into the independent regional central bank. There will no longer be central banks at country level but instead a regional central bank with branches in each member. There will be two arguments about the independence of the central bank. The independent central bank means autonomy from politicians such as house of representatives, parliaments, or government yet central banks are still related with each other through the establishment of a single central bank with different branches in each member state. Once a PU can achieve a common agreement on both monetary and fiscal issues then the single central bank can be established and followed by the ultimate step of an economic regional integration: the single currency (SC). Based on the experience of the EU, once a single currency is achieved the region still needs to manage monetary policy as well as its harmonization with disciplined fiscal policy. Yet these levels (SMU and SC) do not necessarily have to involve all the member states. The EU shows that some member states are members of CM but not members of SMU or SC. This is understandable as SMU is not an easy option as it needs PU in terms of harmonization of fiscal policy to common monetary policy.

Learning from the experience of the EU in creating a single currency is actually similar to learning about regional economic integration itself. The EU’s history is the best learning material for any region in the world attempting to increase and enhance its regional economic cooperation. Before establishing FTAs in 1957 with the Treaty of Rome, the six original or founding members of the EU (France, Germany, Italy, Belgium, Netherlands, and Luxembourg) signed the Treaty of Paris in 1951. This treaty combined both the European Payments Union (EPU) and European Coal and Steel Community (ECSC). The selected year birth of the EU is 1957 because this was the year its first PTA (FTA) was
established. Yet the Treaty of Paris is considered as a forerunner institution for the EU. Ten years after EU established its first regional economic commitment, it reached a new agreement called the European Economic Community (EEC). If the Treaty of Rome in 1957 covered commitments on FTA, the EEC covered commitments on CU. At this level the EU achieved regional economic integration in trade and investment relations. It took around 20 years for the EU to achieve the next level known as the European Single Market (ESM). This covers the regional commitment on CM. Since the Bretton Woods agreement on international fixed exchange rate of international currency (US$) collapsed in 1971–1973, the EU had started its commitment to financial integration, but in reality it needed 20 years after achieving CM to establish the SMU and SC. However, monetary regional integration has made the EU formulate a new treaty called the Treaty of Maastricht, in 1993, because not all of the members were willing to join to establish the SMU and SC. The EU finally circulated its single currency (the Euro) in 2002.

Learning from the experience of EU, this book takes as a general conclusion that ASEAN is around 48 years behind the EU economic integration level. This time lag could be understood when comparing the history of ASEAN’s regional economic integration to that of the EU. ASEAN was established in 1967 but it had no activity until its first Treaty of Amity and Cooperation (TAC). This was signed at the ASEAN Summit in Bali-Indonesia in February 1976. This is similar to the Treaty of Paris, a forerunner of ASEAN. Yet ASEAN took a longer time to achieve its regional commitment on FTA, which was in 1992. This year is similar to the birth of the Treaty of Rome for the EU. If the EU achieved her FTA commitment after approximately 6 years after her first forerunner (1951–1957), ASEAN took around 16 years (1976–1992).

Every time a developed country that is also a world financial market center runs into trouble, the global economic balance becomes disturbed. There are several factors that contribute to this: (1) there is always a production network in producing export products. Naturally each country has distinct advantages in raw materials, economies of scale, and specialization in production. All countries need to work together; (2) developed countries have an incentive to remove some of their component production to developing countries. This will reduce the production cost in
developed countries and create jobs in developing countries. This type of win–win solution connects developed and developing countries under trade and investment relations; (3) real sector activities such as export and import have strong relationships with the financial sector because one of the functions of money is as a medium of exchange. In international transactions, the currency used for payments is the developed country’s currency. This makes developing countries take money as a store of value function in their international reserves in the developed country’s currency such as US$, Euro, and Yen. This is why every time developed countries such as the USA and Europe face economic trouble that affects their currency, the local currency of developing countries will also be affected. At the same time, normally in the short run, there are disturbances on derivatives markets such as stocks, obligation, and gold prices, and in the medium run there are pressures on inflation rates as well as domestic interest rates in both developed and developing countries.

This global financial crisis would disturb the balance of payment (BoP) in particular on a country’s capital account. This crisis can generate a capital account deficit. Each country will attempt to protect its international reserves by increasing net of current account value, in particular trade account or export and import. The WTO dataset shows the patterns in percentage of manufacturing exports by region. WTO published the data entitled World Trade Developments, which describe trade flows in the world. This data was divided into seven regions, namely North America, Central–South America, Europe, Africa, Middle East, Asia, and the Commonwealth of Independent States (CIS).

Table 1.5 of the World Trade Developments Year 2006 (published by the WTO) shows that all of these regions are connected to each other in the global trade networks with three central points. They are Europe, Asia, and North America. There are three reasons why this area is called the central point of world trade networks: (1) these three regions (Europe, Asia, and North America) control the majority share of world trade at about 84.1 percent of the total while the remaining 15.9 percent was divided into other four regions (Central–South America, CIS, Africa, and Middle East); (2) these three regions are relatively independent because their intra-regional trade shares are high. Value of export from Europe to Europe achieved 71.3 percent of Europe’s total export; Asia to Asia intra-regional trade was
57.7 percent and North America to North America intra-regional trade was about 38.4 percent, while other regions remained below 35 percent; 
(3) other regions were more dependent on these three center point regions. Aside from being dependent on its own intra-regional trade at around 29.5 percent, Central–South America also depends on North America at around 28.4 percent while the CIS, Africa, and Middle East depend more on Europe at around 48.7 percent, 42.6 percent, and 33.8 percent respectively.

Therefore, if an economic crisis threatens developed countries in North America and Europe, in addition to affecting their own region other regions that would also be directly affected are those that have 50 percent of their trade dependent on North America and Europe such as CIS and Africa. Following these two regions, other regions that would potentially be affected are Central–South America and the Middle East with trade dependence on North America and Europe at 46 percent and 44.8 percent respectively.

Table 1.5 of *World Trade Developments Year 2006* proves that Asia is in a better position than other regions because her trade dependence on North America and Europe was at the lowest level of 24 percent. This explains why the impact of the financial crises on trade was minimal in Asia compared to other regions at which some countries in North Africa and the Middle East have experienced political and security problems in 2010–2012 following the global economic crisis.

Naturally, when the global economy turns weak, each country will attempt to optimize their regional markets. Countries in Asia are more fortunate than other regions because Asia depends more on its regional markets and Asia, in particular East Asia and Southeast Asia, learned a valuable lesson from the previous Asia economic crisis in the late 1990s. From March 24, 2010, the East Asia and Southeast Asia regions achieved a solid financial cooperation in protecting their currency. Bilateral currency swap arrangement in the Chiang Mai Initiative effectively became multilateral. This cooperation is supported by ten ASEAN member countries and 3 East Asian countries: Japan, China, and South Korea.

Following the economic crisis in the late 1990s, ASEAN countries have become more serious about their commitment to deepen and enhance their regional economic cooperation. The purpose of deepening
Southeast Asia’s regional economic cooperation is indicated from the seriousness of ASEAN in achieving the ASEAN Economic Community, similar to European Economic Community, in 2015. The purpose of enhancing Southeast Asia regional economic cooperation is indicated in the enlargement process of ASEAN to other countries outside Southeast Asia. From the regional perspective, the expansion of the ASEAN cooperation to East Asia on the financial sector is very effective in anticipating the global financial crisis threat.

In addition to the multilateral and non-discriminative policy in the WTO, each country establishes different levels of economic cooperation with other countries such as bilateral, sub-regional, regional, and regional plus.

As the formal theory of regional economic integration explains, an economic integration follows the process of PTA based on geographic proximity (FTA), CU or Economic Community, CM or Single Market, SMU and SC or PU. In general, these processes are divided into three stages: trade (FTA), investment (CU and CM) and Finance (SMU and SC). Currently only the EU has successfully achieved the ultimate objective of economic regional integration, an SC, or PU. ASEAN is still in the trade stage with her AFTA in which in 2015 she moved forward to an investment integration with ASEAN Economic Community. This is a comprehensive regional economic integration.

There are at least three big challenges for the development of comprehensive regional economic integration: (1) real sector integration, in particular trade and investment enhancement, must be established before achieving financial integration. Trade and investment integration is a necessary condition for having financial integration; (2) comprehensive financial development is a sufficient condition for financial integration. In order to reduce the risks of a crisis, financial sector development must cover all fields from insurance, bonds, and stock market, and not only depend on banking institutions (bank-based financing); and (3) a sound macroeconomic regulatory framework must be developed to monitor the dynamic and incomplete information of financial markets. The regional financial institution has to have both functions: monitoring for
preventing contagious financial instability and assisting or advocating for expanding financial stability.

According to the formal theory of regional economic integration, real sectors’ integration (trade and investment relation) will induce liberalization of trade in services, free movement of people, and free flows of capital. Regarding its important role in inducing a common market, trade and investment integration are considered as necessary conditions because they are fundamentals for macroeconomic convergence. The latter is very important for pursuing financial integration.

Prudent macroeconomic policy at the regional level must be completed at the national level through the commitment of inflation targeting, exchange rate stability, and high economic growth. This is related to prudent microeconomic control of a country’s marginal productivity of inputs. The independence of central banks from politics and fiscal disciplines to avoid abuses of the government budget are the means to achieve the objective of a stable monetary sector in each country. Professionalism and good governance are also relevant to this financial stability at all levels: national, regional, and global. Consideration of prudent macroeconomic and microeconomic policies toward the financial sector are beyond the focus of this study.

Until recently, the ASEAN+3 has been the only institution in Southeast Asia that arranges a comprehensive economic integration enlargement from trade, investment, to financial integration. ASEAN formulates several policies in supporting its financial integration process, known as the ASEAN Surveillance Process (ASP). Started in 1999, this policy implements peer review and an information-exchange mechanism among senior officials in each member’s central bank and finance ministries. This mechanism is a basis for regional economic monitoring. ASEAN Finance Minister Meeting (AFMM) held a special meeting in May 2010 in Uzbekistan to endorse the establishment of the Macroeconomic and Finance Surveillance Office (MFSO) in 2011. MFSO is responsible for implementing surveillance and monitoring the consistency of the commitment for regional integration in ASEAN particularly as related to financial integration. The roadmap for monetary and financial integration consists of four areas of financial integration which had been selected in 2003 during the AFMM in Manila: (1) Capital Market
Development, including bond market development; (2) Financial Services Liberalization. This is related to ASEAN’s financial service liberalization commitment in 2015; (3) Capital Account Liberalization, which attempts to achieve free-flows of capital, particularly FDI flows; and (4) Currency Cooperation, through an enhancement of intra-trade and investment relations with closer currency cooperation under macro-economic convergence.

The APT is ASEAN’s original model of financial integration. It has three forms of commitment.

1. CMIM (Chiang Mai Initiative Multilateralization). The AFMM+3 meeting in 2000 formed a network of bilateral currency swap arrangements to address short-run liquidity difficulties and to complete existing international financial arrangements. There are around US$ 120 billion swap arrangements, all managed by the APT Macroeconomic Research Office (AMRO) in Singapore. The CMI changed its mechanism from bilateral to multilateral with US$ 120 billion. This multilateral cooperation is expected to become a regional monetary institution, with the objective that in the long run Asia will have her AMF again. The multilateral cooperation is supported by all the member states of APT at which small countries can borrow up to five times of their contribution while big countries such as PRC and Japan were limited up to 50 percent of their contributions. This stimulates big support from small countries. Another interesting point is that the reserve of CMIM still very small compared to the sum of its members’ international reserve (2.5 percent). This means that CMIM can increase its size. Similar to the ASEAN Way, the CMIM members (the APT of economic cooperation) adopted a flexible decision-making model that is effective in turning the CMIM from inter-governmentalism to centralized power of big countries and to avoid competition among them.

2. ASEAN Bond Markets Initiative (ABMI), established in 2003 with two objectives: (a) to develop local-currency-denominated bond markets, and (b) to develop regional bond markets. Both involve Japan’s Ministry of Finance through the Japan-ASEAN Financial Technical Assistance (JAFTA). In practice, the ABMI has established a credit guarantee mechanism, enhanced its domestic credit-rating agencies, disseminated bonds’ information at regional and
country level, and created new secure debt instruments. These have increased bond market growth and reduced currency mismatch at the APT levels.

3. APT Research Group. This group focuses on the promotion of financial stability in both ASEAN and East Asia. This institute is also managed by JAFTA. Other financial cooperation initiatives are: (a) ASEAN Capital Market Forum, (b) ASEAN Insurance Cooperation, (c) ASEAN-APG (Asia Pacific Group) for Anti-Money Laundering Cooperation, and (d) East Asia Finance Cooperation (EAS FC). ASEAN+3 is the most successful and comprehensive financial integration practice in Southeast Asia. All of these fields of financial market management prove that APT does not only handle contagious financial crises through the settlement of currency swap arrangements but also prevented such crises through the implementation of prudent macro-economic policies. Therefore, the ASEAN-PLUS framework that deals with financial stability and integration has to include issues on fiscal adjustment, inflation targeting, and asset-market bubbles to prevent a potentially contagious regional financial instability. The ASEAN-PLUS frameworks (APT) has to maintain the long-run stability of financial markets by implementing good economic policies even if they are not politically acceptable.

APT is in fact related to the ASEAN Regional Forum (ARF). The ARF itself is originally an extended idea of the ASEAN cooperation with non-member states within the multilateral cooperation framework at Asia-Pacific level which focuses on security matters. This idea first arose during the 1994 Asia Pacific Economic Cooperation (APEC) summit in Bogor, Indonesia. Besides ARF, ASEAN also has wide-region or inter-region cooperation, for example, the ASEAN’s initiative ASEAN-Europe Meeting (ASEM) that was held in 1996.

ASEAN is the most effective focal point of the region’s APEC economic forum. Most observers judge that ASEAN-PLUS is more effective than APEC, as APEC’s cooperation is too broad, with a vague regulated commodity focus and a very loose forum. In line with the APEC Bogor Declaration, which states that the main purpose of the fourth APEC is “the commitment to complete the achievement of free trade and investment in the Asia-Pacific no later than the year 2020,” Not just
economies, APT also weighs in on politics, security, environmental, sociocultural and educational issues.

However, APEC is also considered effective as evidenced by the following quote: “Since its establishment in 1989, APEC has made major contributions to the liberalization and facilitation of trade and investment. APEC has also helped support some of its members in converting to market economies. Its basic principle is to support the elimination of trade restrictions, voluntary liberalization and non-exclusive regionalism” (Seng et al. 2002). Therefore, the most effective forum of APEC’s organization in the form of ARF and its special economic areas is shown by the ASEAN+ at least until now. ASEAN’s economic performance attracts non-member countries represented by its AFTA+, which in turn increases the expansion of ASEAN economic cooperation. At least some of ASEAN’s appeal can be seen as follows: (1) having discriminatory agreements between non-members and members. This agreement is called the AFTA CEPT-IL concept. The agreement is also equipped with the service sector agreements (ASEAN Framework Agreement on Services/AFAS 1995) and co-investment agreement (ASEAN Investment Area/AIA 1998); (2) the large population of about 567.4 million people, 80 percent whom are in their productive age (<40 years old). ASEAN has a large market potential (demand side) as well as a base for economic scale production and economies of scale (supply side); (3) disparities between the economic performances of member states is precisely the opportunity to create a production base that is complementary.

ASEAN is sufficiently attractive to non-members that it would be reasonable for ASEAN to leverage its bargaining position in order to expand its regionalism wings to other non-members outside East Asian, such as India. ASEAN continues to build common bilateral FTAs. The first example is the Framework Agreement on Comprehensive Economic Cooperation between ASEAN and China, signed November 4, 2002 in Phnom Penh. China is competing to influence Southeast Asia. To anticipate the power of China in Southeast Asia, the USA formed the Enterprise for ASEAN Initiative (EAI). EAI cooperation is expected to shift the role of APEC (Kassim 2002). In addition to the USA, ASEAN is currently enlarging its cooperation with other large countries such as India, while at the same time enjoying the benefits of competition among advanced
economic countries. AIFTA (ASEAN-India Free Trade Agreement) target was formed in ten years, from 2002 to around 2012. Based on its negotiation preparations, the China-ASEAN cooperation (2001–2010) started earlier than the India-ASEAN cooperation. The ADB (2010) shared similar thoughts with the conclusions drawn in this book.

Once a region-wide FTA is formed, it may also be easier for Asian Countries to establish a custom union … as the European Economic Community did in 1968.

Based on the WTO statistic data, enlargement of ASEAN with its open regionalism principle in its ASEAN-PLUS framework to non-member states of ASEAN is more applicable to Asian countries. The data for 2006 show that Asia’s regional trade depends more on the Asian region itself. As described earlier Asia’s intra export of around 50 percent went to Asia itself as Europe shows a low ratio of inter-regional trade to intra-regional trade. ASEAN has been committed to implementing appropriate monetary and fiscal policy since Southeast Asia faced its financial crises in 1997/1998. Based on the best practice experience of harmonizing monetary and fiscal policy and creating a single currency which is the EU with its Euro, integration of trade and investment is a necessary condition. From a government-led perspective, commitment at the highest level of governments in ASEAN is important but requires real commitment from market players.

Southeast Asia arrived at a trade and investment relationship in 2016, an economic community as had the EU in 1967 with the CU. The AEC of 2016 is the starting year for ASEAN in achieving the next levels of regional integration such as: (1) ASEAN Single Market with trade in service liberalization, free movement of people (Mode 4: Presence of natural person) and free capital movement; and (2) ASEAN financial integration with single monetary union and a single currency. According to ADB in 2006 there are four Asian regional commitments that relate to ASEAN’s economic integration: (1) trade and investment, (2) money and finance, (3) infrastructure and connectivity, and (4) regional public goods such as endemic diseases prevention, environmental and climate change, natural disasters (tsunami, earthquakes, volcanic eruptions, etc.), food chain stabilities, pollution such as the haze problem, drugs issues, health concerns, human trafficking, and combating trans-terrorism.
The ASEAN Secretariat in its website explains that ASEAN has several policies to support her commitment towards financial integration purposes. They are: (1) ASEAN Surveillance Process (ASP), (2) Roadmap for Monetary and Financial Integration, (3) APT with three forms of commitments: (a) CMIM (Chiang Mai Initiative Multilateralisation), (b) ASEAN Bond Markets Initiative (ABMI), and (c) APT Research Group, (4) other Financial Cooperation Initiatives: (a) ASEAN Capital Market Forum, (b) ASEAN Insurance Cooperation, (c) ASEAN-APG (Asia Pacific Group) for Anti-Money Laundering Cooperation and (d) East Asia Finance Cooperation (EAS FC). All of these financial cooperation frameworks have been simultaneously implemented with ASEAN real sector integration of trade and investment (AFTA+1 such as ACFTA, AJFTA, AKFTA). This simultaneous mechanism accelerates and enhances ASEAN in achieving her purpose of a common market of the ASEAN Economic Community.

The process to enter the AEC is on the right track and compatible with the “soft and open regionalism principle” of ASEAN in particular, because China has shown strong commitment in regional plus (ACFTA) for their trade and investment liberalization and has given full support for the CMI framework in which Japan plays an important role. In recent years, China and Japan have become more solid in sharing similar values to create the Asian values that are well matched to the enlargement of their nearest economic network, the ASEAN countries.

2.4 Proposition

The dependent variable selected is the value of FDI inflows. Data for FDI inflows is collected from the data on FDI inflows in BoP of each country from Global Development Finance data of the World Bank. These data are treated as an independent variable for both regional level analysis (AFTA) and bilateral level analysis (BFTA). The hypothesis is: FDI as the dependent variable is hypothetically affected by the selected independent variables.

There are several formal definitions of FDI: C. R Harvey in Hyper textual Finance Glossary:¹⁵ “the acquisition abroad of physical assets such
as plant and equipment, with operating control by parent firms.” Gillis, Roemer, and Snodgrass (1992): “long term investments made by non-residents through ownership of capital assets fully or partially [in] control of the enterprise with physical present by non-resident firms in particular domestic country.” Graham and Krugman (1993): “new equity purchased by parent companies from overseas that are considered as center firms or reinvestment of earnings by center firms to sub-contractor companies or new investment from parent companies to sub-contractor companies.” Lindblad (1997): “an investment involving long term relationships and reflecting a lasting interest of a non-resident entity (parent firms in host countries) in one economy in an entity resident (sub-contractor firms in home countries).” Todaro and Smith (2003) in “Economic Development” define it as “long-term investment by large multinational or transnational corporations usually with headquarters based in developed nations that are notably different to portfolio investment like bonds, stocks and notes which short term, derivative and non-physically.”

FDI has some forms that can be classified as equity linkages in which parent firms from home countries invest physical capital in the FDI host country or non-equity linkages at which parent firms from home countries invest non-capital forms, such as franchising a product, granting a license to produce, a sub-contract system in which host countries become the branch of host country products. There are at least five benefits that are generated from FDI inflows: achieving sustainable economic growth, generating employment, developing strategic national resources, transferring and implementing both competitive technology and technical skills, and supporting export growth thus improving the host country’s balance of payments. Hence each government wants to attract FDI inflows and manage them properly.

This study defines FDI as a long-term physical and capital form of investment with whole or partial ownership by foreign companies or parent firms from home countries into selected host countries.

This study uses FDI inflows to represent investment creation. In addition to that, to check the impact of AFTA on FDI inflows, this study adopts an OLS model to find the direct impact of AFTA on FDI inflows and system equations models to find the indirect impact of AFTA on
FDI inflows through the intra-regional trade channel. Under a systems equation, this study constructs two equations: One equation connects FDI as the dependent variable and another equation connects intra-regional trade as the dependent variable. AFTA and BFTA are utilized as time-dummy variables.

The data for FDI inflows value are adopted from the *ADBI statistical database* of Direct Investment Value in the BoP which was originally adopted from Global Development and Finance of the World Bank. The pattern of FDI inflows of Indonesia, Malaysia, Thailand, and Philippines was decreasing during the Asian financial crises in 1997 until 2001 but this trend increased after 2002. This figure shows that Asian financial crises took around five years of adjustment for the FDI flows.

This total value of FDI inflows applied as independent variables where dependent variables are described below:

### 2.4.1 Independent Variable

4. Value of Gross Domestic Product (GDP). This value of nominal GDP represents economic size. GDP is the most appropriate variable to express economic size of a country as this covers value added, return on input, and expenditure of final output (Blanchard 2009). GDP is calculated from either: (1) the value of the final goods and services during a given period at its final price. The commodities (goods and services) in this definition are final commodities not partial intermediate commodities or (2) Total value added of commodities are at its intermediate price. Total value added of commodities is equal to the value of final commodities at final price. This measure uses intermediate commodities as a basis of measurement or (3) Total income in the economy at a given period. Value of the final commodities or its total value added is completely distributed to input factors in the form of wages, salaries, rents, etc. Therefore, total income in the economy would be equal to total value added or value of the final commodities at final price. *Hypotheses* are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.
5. Value of Consumption (CONS). Consumption represents total output (goods and service) at final price consumed by consumers over a certain period. This variable is value of nominal consumption that represents equilibrium of supply and demand that is affected by disposable income. This definition makes it able to describe purchasing power of the country. As part of the GDP, consumption value is calculated at final price together with investment, government expenditure, and net export and import value. *Hypotheses* are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

6. Percentage of Economic Growth (GR). This variable represents “economic performance.” According to theory, economic growth is a positive indicator for investors to invest in long-run investment or FDI inflows (Salvatore 2004). GDP has two types, nominal GDP and real GDP. Nominal GDP includes inflation rate (current price) while real GDP covers only constant prices that exclude the inflation rate. In measuring the economic growth, economists adopt real GDP as it represents growth of output and requires constant price. Economists use rate of economic growth as a proxy to review economic condition whether a country is in expansion, crises, recession, or in depression. *Hypotheses* are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

7. Number of Population (POP). This is a proxy to demand capacity. Economists use number of population as an indicator that reflects demand capacity. Economic size is reflected by both the GDP and number of population. A country with high population normally also has high nominal GDP. *Hypotheses* are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

8. Number of Employed Workers (EMPL). This represents the availability of productive production input of labor (L). Labor is an important input factor beside capital and Total Factor Productivity (TFP). In a macroeconomics perspective, population is divided into work force and non-work force (Blanchard 2009). Work forces are population who are in their productive age (around 15–65 years old) and non-work forces are those who are out of this age range. Work forces are divided into labor forces and non-labor forces. Labor forces are work forces who are employed or seeking jobs. Non-labor forces
are labor forces who are considered not as working such as housewives and students. This study uses number of employed workers as a proxy for employed labor force. This number represents productive production input. Hypotheses are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

9. Government Expenditure on Education (EDU). This variable is a proxy for human resource quality. This variable is to substitute unavailable data in R&D expenditure by country. Data of total spending on R&D in the observed countries cannot fulfill the time-series need. Some sources show that during the period of observation, in these three observed countries; R&D expenditure mainly comes from government budgets and the rest from the private sector. The other problem is the difficulty in getting detailed data on government budgets in the observed countries. In order to deal with this data availability problem, this study chose to use “government expenditure on education” as a proxy, and this data also describes the government role in human resource development. Hypotheses are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

10. Electricity Consumption (ELECONS). This variable represents the availability of sound infrastructure. Electricity service and its coverage are important issues for the three observed countries. A supply of electricity is essential for the industrialization process. Electricity capacity is considered as the most appropriate variable to represent sound infrastructure. This study adopts electricity consumption. This describes the electricity consumption of the observed countries. This data is described in Yearly KWh (kilowatt hour per capita). Hypotheses are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

11. Degree of Openness (DOO). In macroeconomics theory there are three definitions for degree of openness: openness in factor of production, in financial markets, and in goods markets. This study adopts the latest variable of openness (goods). The formula is described as the percentage of total trade to GDP or TGDP. The formula is

$$TGDP = \frac{X_{it} + M_{it}}{GDP_{it}}$$

where \(X_{it}\) is value of exports of country \(i\)
at time \( t \); \( Mit \) is value of imports of country \( i \) at time \( t \); GDP\( it \) is Gross Domestic Product of country \( i \) at time \( t \). This index could be higher than 1 (one). The higher the index, the more open is the country’s economy. Hypotheses are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

12. Exchange Rate (ER). This variable is taken from the average exchange rate (domestic currency per US$). This variable represents economic stability. During Southeast Asia’s economic crises, exchange rates incurred an unanticipated depreciation leading to devaluation. Hayakawa and Kimura’s (2008) study found that exchange rates were the most important variable to describe economic uncertainty and competitiveness within production blocs in regional production networks. Exchange rate also represents a cost-of-service link. This means that a country with high volatility exchange rate will be difficult to incorporate with other countries in a production network as its exchange rate volatility endangers the entire network. Jones and Kierzkowski’s (1990) study introduced the basic concept of the fragmentation between “before” (large integrated factory) and “after” fragmentation (several production blocs (PB) being connected to each other with service links (SL)). Fragmentation of PB and SL makes the costs of transportation (logistic cost, insurance cost, trade cost, quality of infrastructure); administrative costs (custom clearance, loading–unloading, COO Certificate) important to evaluate the effectiveness of regional integration process. Kiyota and Urata’s (2004) study shows that exchange rate volatility has significant negative impact on Japanese FDI inflows in East Asian countries. According to the relative-value-of-wealth approach, the more depreciated a local currency of a host (developing) country, the more is the incentive for the investor in the home (developed) country to invest. Given that this study uses nominal exchange rates as local home currency per local host currency; therefore, the increasing ER generates disincentive for the investors to invest FDI inflows in host country. Hypotheses are (H0): Positive effect to FDI flows; (H1): Negative effect to FDI flows.

13. FDI Profit (FDIPROFIT). This data is formulated by the World Bank in the form of value of Profit Remittance of FDI (in US$).
The data is collected from the *Global Development Finance*. The World Bank defines this as “payments of direct investment income (debit side) which consist of income on equity (dividends, branch profits, and reinvested earnings) and income on the intercompany debt (interest).” The data are part of Resource Flows at which the set form is on a yearly basis. This study adopts this data as a proxy for the profit advantage of the observed countries. This means that the higher profit remittance from FDI the higher value added of physical investment, then the more attractive that country is for investors. *Hypotheses* are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

14. Real Wage (RW). This is an approach to productivity of labor. It is based on the basic formula: \( P = W / MPL \); \( P \) is price level; \( W \) is nominal wage; MPL is marginal productivity of labor. Therefore, productivity is \( MPL = W / P \); In order to get general representative number of productivity, this study calculates MPL through the calculation of \( W / P \). This is represented by the ratio of GDP per employment. This figure is obtained by dividing the value of GDP to the number of employment. Thus this number is divided by CPI (Consumer Price Index) in order to get the productivity value. *Hypothesis* are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

15. Intra-Regional Trade (INTRA). This variable is treated as the dependent variable when testing the impact of AFTA to trade creation (intra-regional trade) of ASEAN. This study also uses INTRA as an independent variable when testing the relationship between trade creation and investment creation (FDI inflows). A previous study by Verico (2007) found that Intra ASEAN Trade affects FDI inflows in Southeast Asia. This study showed that the indicator of I is the most relevant indicator to calculate intra-trade in Southeast Asia. The formula is adopted from Frankel (1997) and is explained as follows:

\[
I_{r,r} = \frac{X_{r,r}}{X_{r,w}} \frac{X_{r,w}}{X_{w,r}} \frac{X_{w,r}}{X_{w,w}} \tag{a}
\]
According to Frankel (1997), there are two other functions for calculating intra-regional trade. They are:

\[ in = \frac{X_{r,r} + M_{r,r}}{X_{r,w} + M_{r,w}} \]  

\[ T = 1 - \frac{|X_{r,r} - M_{r,r}|}{X_{r,r} + M_{r,r}} \]

Using the Granger-Causality Test, the most significant formula is \( I_{rr} \). The basic theory for intra-regional trade and its effect on investment inflows is the “Custom Union (CU) Effect.” This is adopted from the EU’s empirical experience as CU generates “tariff factories” that make trade diversion of the regional economic integration to be higher than its trade creation effect. This condition will stimulate “investment creation” from non-members. This study also assumes that AFTA stimulates FDI inflows from non-member states but less than the CU’s impact. The intra-regional trade variable in this study is intra-ASEAN trade of final products with Indonesia, Malaysia, and Thailand as representative of ASEAN. This formula represents total value of \( X \) and \( M \) from ASEAN to ASEAN divided by total ASEAN to the rest of the world. In order to avoid a double counting effect, Indonesia has been
selected as an anchor. Therefore, her exports and imports to ASEAN are maintained while Malaysia’s exports and imports have to be deducted when calculating that of Indonesia and Thailand; and Thailand’s exports and imports are excluded when calculating that of Indonesia and Malaysia. Otherwise, for instance, Indonesia’s export to Malaysia will double-count Malaysia’s import from Indonesia. The same method is also applied in calculating $X$ and $M$ values for the rest of the world. Source of Data: Direction of Trade by Destination Country in US$, ADB. This calculation is confirmed with Intra-Regional Trade Index of ARIC Data Base.

The intra-trade is intra-ASEAN trade in these three observed countries in ASEAN. It has been formulated as follows:

\[
in = \frac{X_{r,r} + M_{r,r}}{X_{r,w} + M_{r,w}}
\]

$X_{r,r}$ is value of export (country based) from region to region
$M_{r,r}$ is value of import (country based) from region to region
$X_{r,w}$ is value of export from region to world
$M_{r,w}$ is value of import of region from the world

Intra-regional trade data have been adopted from the author’s previous study (Verico 2007). In order to get a comparative description, this study adopts the intra-regional trade (percent) of ASEAN from ARIC-ADB data of 2010 to compare with the author’s calculation on Indonesia, Malaysia, and Thailand. Hypotheses for the intra-regional trade of ASEAN are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

16. Dummy AFTA. In theory FTA is designed to generate trade creation within the region. Some scholars argue that AFTA establishment was because of: (a) the end of Cold War in 1989, (b) settlement of Cambodian conflict, (c) augmenting economic integration in the EU from common market to financial integration after signing the Maastricht Treaty, (d) opening free market access for Mexico in USA after NAFTA assignation. This harmed ASEAN in two ways: (a) the USA
is one of the largest destination markets, and (b) Mexico is one of the largest competitors for ASEAN products. AFTA represents progressive institutional development of ASEAN economic integration with its “inter-governmental” mechanism to increase intra-regional trading in Southeast Asia. For this purposes AFTA became legally binding for signatories (Nesadurai 2003). AFTA was discussed officially in 1992 and signed the year after. AFTA Dummy represents regional trade cooperation among ASEAN members. 17 Malaysia adopted AFTA CEPT by reducing its tariff in 1992 but Philippines did it in 1997, while the initiator of AFTA (Thailand) and CEPT designer (Indonesia) did it in 1998. This dummy uses 1999 as an anchor, therefore years after 1999 is 1 and years before 1999 is 0. AFTA was officially signed in 1992 but implementation took several years and the data sent signals that the most appropriate break point for dummy-time is 1999—in particular two of the three observed countries in model of AFTA gave their commitment to the CEPT in 1998, and considering the impact of economic crises the most fit year is 1999. Hypotheses are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

17. Dummy BFTA (BFTA). The BFTA (Bilateral Free Trade Agreement) is unique for each country. Indonesia uses an anchor year of 2008, Malaysia and Philippines use 2005, and Thailand uses 2007. The first BFTA ever for ASEAN is Singapore’s BFTA in 2002 and at this model the dummy time for representing the whole BFTA is 2004, since this was the first BFTA within these three countries. Hypotheses for the BFTA implementation are (H0): Negative effect to FDI flows; (H1): Positive effect to FDI flows.

Other variables such as corruption index, political stability, distance, English speaking capacity are not observed due to limited data availability or irrelevancy to the study’s hypothesis. Selected variables, their expected signs of hypothesis, and sources of data for systems equation to prove the relationship between AFTA, intra-regional trade, and FDI inflows are described in Table 2.1 (Appendix). This following table consists of total variables that will be utilized in order to find the most significant variables which affect FDI inflows.
2.5 Method

This study implements two scenarios: (1) Direct impact of AFTA to FDI inflows. For this scenario this study uses the PLS (Pooled Least Square) method where AFTA is included in one equation that treats FDI inflows as a dependent variable. (2) Indirect impact of AFTA to FDI inflows following the preposition of Ravenhill (1995) and Bowles and MacLean (1996). For this scenario this study implements both non-system which separates the equation of FDI inflows and equation of intra-regional trade and a systems equation model which treats FDI inflows and intra-regional trade as endogenous variables and the rest as exogenous variables.

Unlike scenario one, scenario two assumes that AFTA affects intra-regional trade then intra-regional trade affects FDI inflows. The difference between putting this scheme in non-system equation and system equation is that the non-system runs the equations one by one whereas the systems equation puts them in one step regression. Systems equations have two assumptions—one is assuming that the endogenous variables (FDI inflows and Intra-Regional Trade) have a one way relation whereas Intra-Regional Trade affects FDI inflows but FDI inflows do not affect Intra-Regional Trade. This relation is entitled as SURE (Seemingly Unrelated Regression Estimator). The second assumption is that FDI inflows and Intra Regional Trade have two-way relations by which they are affecting each other. This is entitled as SEME (Simultaneous Equation Model Estimator). Eq. 2.1 expresses scenario one and Eqs. 2.2 and 2.3 express scenario two both in system and non-system models.

\[
FDI_{it} = C + \beta_1 GDP_{it} + \beta_2 CONS_{it} + \beta_3 GR_{it} \\
+ \beta_4 ER_{it} + \beta_5 POP_{it} + \beta_6 EMPL_{it} + \beta_7 AFTA
\]  
(2.1)

\[
FDI_{it} = C + \beta_1 GDP_{it} + \beta_2 CONS_{it} + \beta_3 GR_{it} \\
+ \beta_4 ER_{it} + \beta_5 POP_{it} + \beta_6 EMPL_{it} + \beta_7 INTRA_{it}
\]  
(2.2)

\[
INTRA_{it} = C + \vartheta_1 GDP_{it} + \vartheta_2 GR_{it} + \vartheta_3 ER_{it} \\
+ \vartheta_4 RCA_{it} + \vartheta_5 RW_{it} + \vartheta_6 AFTA + \vartheta_7 BFTA + u_i
\]  
(2.3)
where:

\[ \text{INTRA}_{it} \] is intra-trade; \[ FDI_{it} \] is the dependent variable (Net FDI); \[ GDP_{it} \] is GDP Nominal; \[ CONS_{it} \] is Consumption Value; \[ GR_{it} \] is Economic Growth; \[ ER_{it} \] is Exchange Rate; \[ POP_{it} \] is Number of Population; \[EMPL_{it} \] is Number of Employment; \[ ELECONS_{it} \] is Electricity Consumption (KWh), \[ FDIPROFIT_{it} \] is FDI Profit; \[ DOO_{it} \] is Degree of Openness (Export plus Import Value divided by GDP); \[ RCA_{it} \] is Revealed Comparative Advantage; \[ RW_{it} \] is Real Wages; AFTA is Dummy Variable for AFTA and \[ BFTA \] is Dummy Variable for Bilateral FTA. The following is the method used.

Scenario two is based on the empirical facts that AFTA was designed to boost ASEAN’s intra-regional trade, and to attract FDI inflows. ASEAN formulated the AIA (ASEAN Investment Area) policy. All the models in this chapter are built to find the most significant variables that explain the effect of trade agreements at regional and bilateral levels in Southeast Asia (AFTA and BFTA) on both intra-regional trade (trade creation) and FDI inflows (investment creation). The trade agreements in models are accompanied with other macroeconomic variables such as control variables, since FDI flows are affected not only by discriminatory trade policies but also by macroeconomic variables. With the independent and dependent variables thus selected, the original equation is expressed as follows: The number of observations in this model is 84, which consist of 21 years of time dimension (1988–2008) and four countries of space dimension (Indonesia, Malaysia, Thailand, and Philippines).

2.5.1 Econometric Analysis: Non-system Analysis of Original TSLS

This model is a reduced-form model using a two-steps procedure. The first step is to estimate the second formula in which intra-trade has been counted as an endogenous dependent variable. The level of intra-trade has been affected by discriminatory trade agreements at regional level (AFTA) and bilateral level (BFTA). If the estimator is designed to analyze the effect of AFTA and BFTA, then FDI is the total value of FDI. A
reduced-form model for the second equation represents the first step for this estimation. It is expressed as follows:

\[
INTRA_{it} = C + \hat{\beta}_1\cdot GDP_{it} + \hat{\beta}_2\cdot GR_{it} + \hat{\beta}_3\cdot ER_{it} + \hat{\beta}_4\cdot RCA_{it} + \hat{\beta}_5\cdot RW_{it} + \hat{\beta}_6\cdot AFTA + \hat{\beta}_7\cdot BFTA + u_t
\]

Substituting Eq. 2.4 into variable of intra-regional trade in the Eq. 2.2 gives the full equation as follows:

\[
FDI_{it} = C + \hat{\beta}_1\cdot GDP_{it} + \hat{\beta}_2\cdot CONS_{it} + \hat{\beta}_3\cdot GR_{it} + \hat{\beta}_4\cdot ER_{it} + \hat{\beta}_5\cdot POP_{it} + \hat{\beta}_6\cdot EMPL_{it} + \hat{\beta}_7\cdot EDU_{it} + \hat{\beta}_8\cdot ELECONS_{it} + \hat{\beta}_9\cdot FDIPROFIT_{it} + \hat{\beta}_{10}\cdot DOO_{it} + \hat{\beta}_{11}\cdot RW_{it} + \hat{\beta}_{12}\cdot INTRA_{it} + u_t + e_t
\]

This step is to estimate the reduced-form model for the complete variables. In this model intra-trade has been replaced by the estimated value from the first formulation Eq. (2.3).

### 2.5.2 Econometric Analysis: System Analysis of Seemingly Unrelated Regressions Estimator (SURE)

This estimator is chosen considering the possibility that the two equation errors are correlated. Error correlation occurs because their covariance \((e_{FDI}, e_{intra}) \neq 0\) then \(\sigma^2_{FDI} \neq \sigma^2_{intra}\). The two equations need to be written in one system with a SUR estimator. The correlation between disturbance terms of these two equations can be affected by the identical unsystematic factors such as regional market sentiment and regional production network. This estimator assumes that non-zero correlation exists among the two disturbance errors. The system uses a GLS instead of a regular OLS because the GLS efficiently estimates parameters and generates smaller standard errors. It runs equation one and equation two under one system that has unrelated errors (SURE).
2.5.3 Econometric Analysis: System Analysis of Simultaneous Equation Models Estimator (SEME) for AFTA

The SEM estimator is chosen since one of the exogenous variables in Eq. 2.1 can be affected by the endogenous dependent variable. It opens up the probability that FDI influences the intra-trade variable. It needs to put the FDI variable as an exogenous in Eq. 2.2. If the t-statistic of this parameter is smaller than t-table, then hypothesis (H0), which states that FDI affects intra-trade, is rejected. Similar to SURE, this estimator requires two equations to be estimated into one system and follow a reduced-form method. It runs equation one and equation two under one system that FDI inflow is expected to affect intra-trade. The relationship between intra-trade and FDI is reciprocal; therefore, equation two has an additional variable (FDI).

\[ \text{INTRA}_{it} = C + \partial_1 \cdot GDP_{it} + \partial_2 \cdot GR_{it} + \partial_3 \cdot ER_{it} + \partial_4 \cdot RCA_{it} + \partial_5 \cdot RW_{it} + \partial_6 \cdot AFTA + \partial_7 \cdot BFTA + \partial_8 \cdot FDI_{it} + u_i \]  

(2.6)

2.6 Analysis

2.6.1 The Impact of AFTA and Intra-regional Trade on Aggregate FDI Inflows (Investment Creation): Non-system Equations of Panel Data

The impact of AFTA on FDI inflows as explained above are seen from two ways: first is the “direct impact” of AFTA to FDI inflows and second is the “indirect impact” in which AFTA first affects intra-regional trade then second its intra-regional trade affects FDI inflows. Details in Model 2.1 (Appendix).

Log GDP as an indicator to economic size holds significant level at 1 percent for the impact of AFTA on intra-regional trade (first column), the impact of intra-regional trade to FDI inflows (second column) and
the impact of AFTA to FDI inflows (third column). All the estimators show that increasing the economic size of a member country stimulates both intra-regional trade and FDI inflows of Indonesia, Malaysia, Thailand, and Philippines.

These findings confirm the “horizontal integration” thesis of Helpman and Krugman’s (1985) study that emphasized that similar levels of GDP will increase intra-trade between countries. This is known as horizontal integration. Yet increasing intra trade could be occurring between a high-income country and a low-income country. This is known as vertical integration; for example, the regional production network led by Japan (the flying geese model—Akamatsu). Both horizontal and vertical integration have a similar essential factor, which is that increasing economic level in GDP will increase trade and investment incentives among involved countries. In sum, both integrations indicate that GDP has a positive relationship with intra-regional trade and FDI inflows.

The regressions show that Log labor productivity (MPL = RW) have significance and positive impact on FDI inflows and intra-regional trade of indirect impact of AFTA to FDI inflows but insignificance in direct impact of AFTA to FDI inflows. This confirms that labor productivity stimulates both intra-regional trade and FDI inflows. The latter confirms that foreign investors invested in Southeast Asia after considering the labor productivity, of Indonesian Malaysia, Thailand, and Philippines. This proves the importance of labor productivity for investment creation (Deepak et al. 2003).

Log Exchange rate (nominal of domestic to US$ currency) shows significant and positive impact on both intra-regional trade and FDI inflows. This confirms that the depreciation of local currency gives positive effect to investors’ decision to invest and it also increases intra-regional trade within member states. This proves local currency depreciation encourages investment creation. Yet it is still insignificance in the direct impact model of AFTA on FDI inflows.

Log Population shows significant yet negative relation with FDI inflows. In relation to the significant and positive impact of labor productivity to FDI inflows, this finding indicates that investors and exporters and importers take productivity as an incentive, not the size of the population. Increasing population probably increases dependency ratio,
a ratio between non-manpower and manpower, which decreases a country’s attractiveness for FDI inflows and trade competitiveness. Number of employment also shows significant and negative impact to FDI inflows as again the important point for the investors is labor productivity not the number of both population and employment. This result shows the opposite result from previous studies of FDI inflows such as Motta and Norman (1996), which found the positive impact of the demand-pull on investment creation.

Degree of Openness (level) gives significant and positive impact on FDI inflows. This proves that economic openness of both export and import stimulates investors to increase long-run investment in the member states. This confirms that the more open that a country is to international trade, the more convenient the country, then the more comfortable and confident are the investors to put their long-run investment in that country and vice versa.

AFTA gives positive impact to intra-regional trade but is still insignificant. This shows that AFTA needs to be enhanced in order to be significant in affecting intra-regional trade. AFTA does not positively affect FDI inflows. Even its relation is insignificant, this result shows that ASEAN needs other economic agreements in completing the AFTA to stimulate investment creation in Southeast Asia.

Bilateral trade agreement gives positive impact on FDI inflows. This shows that bilateral agreement is effective for ASEAN member states to stimulate investment creation instead of trade relations.

Lastly intra-regional trade has positive impact on FDI inflows. This confirms that intra-regional trade can stimulate investment creation. Yet the impact is still insignificant, therefore ASEAN needs to enhance the effectiveness of its intra-regional trade effect on its investment creation. Given the result of AFTA’s insignificance in affecting the FDI inflows then ASEAN needs to utilize its other frameworks to increase both intra-regional trade and intra-regional investment.

This model treats all variables outside the system. It needs another approach to put them in a systems equation under both the seemingly unrelated (intra-regional trade and FDI inflows have a one-way direction impact: from intra-regional trade to FDI inflows) and simultaneous equation (two ways relation of intra-regional trade and FDI inflows).
2.6.2 The Impact of AFTA and Intra-regional Trade to Aggregate FDI Inflows (Investment Creation): System Equations of SURE and 3SLS (SEME) of Panel Data

Unlike the non-system equations discussed earlier, this model considers the impact of AFTA to intra-regional trade (trade creation), the impact of intra-regional trade to FDI inflows (investment creation with SURE), and the impact of FDI inflows to intra-regional trade (trade creation with SEME/3SLS). If SURE assumes that the impact of intra-regional trade occurs in a one-way direction of which intra-regional trade affects FDI inflows yet FDI inflows does not affect intra-regional trade, SEME assumes that FDI inflows also influence intra-regional trade. Details in Model 2.2 (Appendix).

In a systems equation both SURE and SEME are significant in explaining the relations between intra-regional trade and FDI inflows as endogenous variables and other macroeconomic variables as exogenous variables. From the trade creation side, variables that significantly influence intra-regional trade in the SURE model are economic size (Log GDP), number of employment (Log Employ), purchasing power (Log GNP/Cap), electricity capacity (Log Electricity), degree of openness (DOO), and AFTA. Both signs of these variables and their significance level to the intra-regional trade are similar between SURE and SEME. Economic size of Log GDP and electricity capacity as the representative of sound infrastructure significantly and positively stimulate intra-regional trade within member states. On the other hand, number of employment, purchasing power (GNP per Capita), and degree of openness show the opposite result, which negatively affects intra-regional trade. As for employment, the reason behind this is similar to the finding in the non-system equation that intra-regional trade capacity does not increase because of employment increases but competitiveness and productivity of labor. As for the purchasing power and degree of openness, it is indicated that the more they increase, the higher incentive for ASEAN members to have trade relations of export and import with non-member states rather than with member states. AFTA gives positive impact to
intra-regional trade but is still insignificant. This indicates that ASEAN needs to enhance the impact of its regional trade arrangement on its intra-regional trade. In SEME model, this study finds that FDI inflows positively influence intra-regional trade but still insignificantly. Similar to its AFTA impact, ASEAN also needs to enhance the impact of its FDI inflows to its intra-regional trade.

From the investment creation side, variables that significantly affect FDI inflows are consumption capacity (Log Cons), number of population (Log Pop), purchasing power (Log GNP/Cap), and intra-regional trade (Log Intra-Trade). One independent variable of number of employment (Log Employ) is significant and positive in affecting FDI inflows but only in the simultaneous model. Consumption capacity is significant and positive in stimulating investment creation (FDI inflows) in the observed members. This indicates that investors consider an increase in consumption as an incentive for them to increase investment. Number of population is inconclusive as it has different impacts—positive to FDI inflows in SEME and negative in SURE. Similar to the sign of the variable in intra-regional trade, an increase in purchasing power of GNP/Cap create disincentives for the investor to invest. This indicates that increasing GNP/Cap increases trade incentive of export and import and decreases the incentive to invest. Lastly, intra-regional trade is negative to FDI inflows. Even its power is still insignificant but it is important to pay attention to the potential negative relationship between trade creation and investment creation in ASEAN, since it can come to be a barrier for ASEAN in its attempt to move from intra-regional trade to intra-regional investment in the ASEAN Economic Community. This indicates that ASEAN needs other regional economic integration frameworks to complete the AFTA to positively connect ASEAN intra-trade and ASEAN intra-investment.

The negative relationship between intra-regional trade and FDI inflows in ASEAN with the observed members of Indonesia, Malaysia, Thailand, and Philippines confirmed FDI diversion (Kindleberger 1966) which has been adopted from theory (Markusen 1984; Helpman 1984).

A survey of Japanese-affiliated firms in Asia and Oceania (FY 2009) released in March 2010 by the Overseas Research Department of the Japan External Trade Organization (JETRO) also confirms that AFTA is
effective in trade (export and import). Yet its discriminative regional trade of ASEAN has no significant effect on stimulating investment creation in Southeast Asia. It represents the failure of the investment creation objective. This confirms Urata and Okabe’s joint-research in 2007. Their study showed that unlike the EU and Mercosur, which create more “trade diversion effect,” AFTA generates more “trade creation effect.” The absence of a trade diversion effect has been proven from the result of negative relations between intra-regional trade and net value of FDI flows. Yet this study needs to prove the effect of regional trade agreement (AFTA) to intra-regional trade in order to confirm the trade creation effect. Based on the CU theory, the failure in investment creation is caused by the absence of trade diversion. From this finding, this study confirms that trade creation exists in Southeast Asia while trade diversion does not.

Some previous studies can be utilized to explain why AFTA is ineffective in attracting FDI inflows. As some scholars argue that even CEPT was formulated as tariff reduction within member states on selected products; this policy is actually designed to attract long-run investment inflows (FDI). Yet this study found that AFTA has successfully stimulated intra-regional trade but giving negative impact on FDI inflows. Indirectly CEPT succeeded in increasing intra-regional trade yet failed in attracting FDI inflows. ASEAN has adopted another regional agreement to cover things that AFTA could not do. They are AFAS (ASEAN Framework Agreement on Services), AICO (ASEAN Industrial Cooperation Scheme) and the AIA. AFAS indicates that AFTA is not only concerned about free flows of goods but also on liberalization of service sectors. ASEAN has a long-run vision to achieve a full service sector liberalization in Southeast Asia by the year 2020.

Both AICO and AIA indicate that ASEAN members are concerned about supply-side economics. They are not only working on trade or demand-side issues but also on production or supply-side issues. ASEAN attempts to implement economic integration in industrial sectors by implementing AICO and liberalization of long-run investment (FDI) by applying AIA. This means that ASEAN realized that trade has a strong relationship with production and investment and the tools to promote them at regional level are varied. Therefore, regional trade liberalization (AFTA) has to be completed with regional production liberalization
AICO was established after the Japanese automotive firms encouraged ASEAN by revealing their plan in 1996 to enlarge production networks and production volume in Southeast Asia. However, private companies complained about AICO because of its unprepared detailed administrative procedures (Yoshimatsu 2002). Some scholars satirized the “ASEAN way” for this slow movement and unmanaged organization.

Urata and Okabe’s (2007) study shows that trade creation is higher than trade diversion in Asia. This indicates that for the non-member state investors, expected profit of being a trader is higher than that of being investor. This generates a “crowding out effect” between investment (FDI inflows) from non-members and trade. FDI inflows decrease when intra-regional trade increases. This phenomenon is called “substitution to trade” (Markusen 1984; Markusen and Venables 2000). Empirically, high trade creation will stimulate FDI inflows from member state (vertical FDI inflow). Plummer and Cheong’s (2008) study proves this hypothesis. They found that after the Asian financial crises, FDI inflows from member states increased more than FDI inflows from non-member states.

A 1966 study by Kindleberger proved that with a discriminative trade arrangement at regional level it is possible to generate negative impact on FDI inflows if there were discriminative treatments between investors of member states and investor of non-member states. This study found that ASEAN has a discriminative investment policy towards investors from non-member states. AFTA adopted regional affirmative action towards investors from member states and non-member states. This has been proven in the history of ASEAN particularly in relation to the regional economic policy of investment policies such as the ASEAN Industrial Project (AIP), ASEAN Industrial Complementary (AIC), ASEAN Industrial Joint Ventures (AIJV), ASEAN Industrial Cooperation (AICO) and the most recent was the implementation of ASEAN Investment Area (AIA) in 1998, which came into force in 1999. These policies give more privileges to investors from member states than those from non-member states. Yet these discriminative investment policies could lead to a decline in FDI inflows. According to Kindleberger (1966) this phenomenon is called “trade substitute FDI inflows.”
Inter-regional economic cooperation between ASEAN and East Asian countries will generate more “trade creation” than “trade diversion.”¹⁹ This enlargement is a natural process that will generate economic impacts on “investment creation.” If trade diversion effect is higher than the trade creation effect, domestic supports from local firms are easier to be achieved, but in the opposite circumstances, domestic opposition will increase. This is a kind of short-run challenge in establishing ASEAN economic cooperation with domestic support from central government, local government, and local firms. The enlargement of ASEAN throughout the ASEAN-Plus framework will generate two other major benefits: to enhance trade and investment integration in Southeast Asia and to improve the bargaining position over the external threats of global economic imbalances. This chapter confirmed the impact of intra-regional trade (trade creation and trade diversion) and FDI inflows (vertical and horizontal) in Southeast Asian countries particularly among the observed countries: Indonesia, Malaysia, Thailand, and Philippines. All estimators confirm that the trade–investment relationship does not exist between AFTA and investment creation. Most studies on investment perception show that investors are seeking internal factors related to doing business such as procedures required to start a business, profit tax, number of documents to export and import, and ease of doing business, rather than the existence of the region’s FTAs.

However, AFTA still has the potential to be the center of ASEAN’s economic integration process. Data from the ASEAN Secretariat show that ASEAN intra-trade share increased significantly from 12 percent in 1990 to more than twice at around 24.5 percent in 2009.

AFTA’s implementation increases ASEAN’s intra trade by comparing before in 1990 and after in 2009. Intra-trade increased in other trade regional integration organization like the EU, NAFTA and Mercosur. Beside these, there are some developing regional integration organizations that show promising progress, such as APTA (Asia-Pacific Trade Agreement), LAIA (Latin American Integration Association) and BSEC (Black Sea Economic Cooperation). Up to 2011, APTA consists of Bangladesh, China, India, Republic of South Korea, Lao PDR, and Sri Lanka), LAIA consists of Argentina, Bolivia, Brazil, Chile, Columbia, Cuba, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela) and BSEC consists of Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Hellenic Republic, Moldova, Romania, Russian Federation, Serbia,
Turkey, and Ukraine). These three regional organizations consist of the promising future developed countries: Brazil (LAIA), Russia (BSEC), and India and China (APTA).

Data of *UNCTAD Handbook of Statistics* (2009) describe that each regional integration organizations, including ASEAN, share in term of GDP, FDI Inflow, and Total Export and Total Import. In 2008, their share of total developing countries GDP described as follows: APTA (41.8 percent), ASEAN (8.9 percent), LAIA (20.1 percent), and BSEC (13.2 percent). Their share of total developing countries FDI Inflow in flow term: APTA (25.7 percent), ASEAN (9.7 percent), LAIA (18.3 percent), and BSEC (21.6 percent). Their share of total developing countries FDI Inflow in stock term: APTA (14.1 percent), ASEAN (15.5 percent), LAIA (21.7 percent), and BSEC (12.3 percent). Their share of total developing countries Total Export: APTA (33.1 percent), ASEAN (16.2 percent), LAIA (13.2 percent), and BSEC (13.4 percent). Their share of total developing countries Total Import: APTA (33.4 percent), ASEAN (16.7 percent), LAIA (13.8 percent), and BSEC (15.1 percent).

From these descriptions, ASEAN indicates the lowest share of developing countries, but it does not necessarily show the capability of regional integration commitment. It is necessary to see the commitment to have an integrated approach to the capability and its progress of being integrated from calculation of share of intra trade to total trade.

Again, a region’s high share of total developing countries’ macro-economic indicators does not necessarily indicate high integration of regional integration matters. Yet positive trade creation effect which has been found in this study from the significant effect of AFTA on ASEAN’s intra-regional trade under Indonesia, Malaysia, and Thailand, as proxy countries, trade creation still generates cost from the loss of tariff revenue of the government side, which can outweigh net gain received by the member states from increasing intra-regional trade (Panagariya 1995).

Another cost of FTA is the trade creation effect on local firms in less-competitive member states that lose in the competition to competitive member states. This makes less-competitive countries experience decreasing welfare, as illustrated by Bhagwati and Panagariya in 1996. They explain the impact of regional economic integration to the less-competitive member states after the implementation of PTA or FTA.
Details about who had gained from the increasing of intra-regional trade is still debatable between the Kemp–Wan approach (Kemp and Wan 1976) who argue that benefits are gained by the local firms of more efficient member states, and the Bhagwati–Tironi approach (Bhagwati and Tironi 1980) who argue that benefits are received by the multinational firms who invest their FDI in that region which are not necessarily based in member states.

This study finds that FDI inflows can also affect intra-regional trade. Therefore, there is an endogenous relationship between intra-regional trade (trade creation) and FDI inflows (investment creation) in ASEAN. However, FDI inflows (investment creation or trade diversion) positively influences intra-regional trade yet is insignificant, while intra-regional trade (trade creation) significantly affects FDI inflows but negatively. This means that the ASEAN regional trade agreement does not increase investment creation. This study proves that AFTA despite not being significant has a positive impact on trade creation. This finding confirms that PTA such as AFTA generate trade creation even if basically its main objective is to attract FDI inflows from its trade diversion (Grossman and Helpman 1995). These facts show that ASEAN is not effective in connecting its intra-regional trade and long-run investment integration. ASEAN needs external investment from non-member states (horizontal FDI) and this needs other economic cooperation frameworks.

2.7 Conclusion

This study attempts to prove the impact of AFTA on both intra-regional trade (trade creation) and FDI inflows (investment creation). It has two scenarios. First is the direct impact of AFTA on FDI inflows. Second is the direct impact of AFTA on intra-regional trade but indirect impact on FDI inflows through the variable of intra-regional trade. It adopts two models: first a non-system equation and second system equations of SURE and SEME. All of the models use a panel data set.
In the model of FDI inflows, both non-system and system equations, this study finds that independent variables that are significant and positively affect investment creation are economic size (Log GDP), degree of openness (DOO), consumption (Log Cons), population (Log Pop in SEME), number of employment (Log Employ in SURE). There is an independent variable that positively affects investment creation (FDI inflows) but insignificant, which is a Bilateral Free Trade Agreement (BFTA). This confirms that BFTA is effective in increasing FDI inflows (investment creation) but still need to be enhanced. AFTA as ASEAN’s regional-level trade agreement is expected to affect FDI inflows positively in Southeast Asia. The ASEAN spaghetti-bowl phenomenon emerges because member states create direct bilateral trade agreements with non-member states apart from their commitment in AFTA. These trade agreements open the “closed door” or discriminative policy of AFTA. This, however, is the direct opposite of WTO’s vision of non-discrimination trade policies. WTO sees RTAs such as AFTA as complementary to multilateral agreements. In principle, Asian or ASEAN noodle-bowl is the spaghetti-bowl phenomenon but at a lower level. Yet this study finds that BFTA is insignificant in affecting intra-regional trade.

There are independent variables that significantly and negatively affect FDI inflows. They are the number of population which indicates increasing dependency ratio, purchasing power (Log GNP per capita), AFTA (insignificant) and intra-regional trade (significant). The latter indicates that increasing consumption decreases FDI inflows which indicate trade substitute investment.

In the model of intra-regional trade this study found independent variables that are significant and have a positive effect on intra-regional trade in ASEAN to be: labor productivity (Log RW), exchange rate (Log ER), economic size (Log GDP), and electricity capacity (Log Electricity). Several variables show significant and negative impact on intra-regional trade. They are economic size (Log GDP), purchasing power (Log GNP per capita), and degree of openness (DOO). These indicate that the higher the economic size, the stronger the purchasing power, and the more open economic relation of ASEAN, the more incentive for the member states to enhance economic relations with non-members. This will increase inter-economic relations rather than intra-regional trade in ASEAN. Both
the non-system and system equations show that AFTA positively affects intra-regional trade yet it is still insignificant; therefore, ASEAN needs to enhance its AFTA regional economic cooperation. In system equation, number of employment (Log Employ) is significant and negative to intra-regional trade. In relation to significant and positive impact of labor productivity (Log RW) to intra-regional trade in non-system equation, ASEAN needs labor productivity rather than increasing numbers in employment. This study also finds, even it is still insignificant, that FDI inflows (investment creation) affect intra-regional trade (trade creation). The relations between intra-regional trade and FDI inflows are affecting each other. This proves that ASEAN has the potential to move from intra-regional trade to intra-regional investment in ASEAN economic community as long as it can enhance its trade and investment creation integration.

Notes

1. WTO DG Speeches in Bangalore, India, January 17, 2007. Pascal Lamy explains, “Pepper adds taste and can improve a sauce but pepper alone is not tasty, and good pepper in a poor sauce, will not do the trick! Use the wrong recipe and it will be a disastrous dinner.” Details in http://www.wto.org/english/news_e/sppl_e/sppl53_e.htm.

2. Details in Lim, L.Y.C. (1994), The Role of the Private Sector in ASEAN Regional Economic Cooperation, in Lynn K. Mytelka (ed.), South-South Cooperation in a Global Perspective, Paris: Organization for Economic Cooperation and Development, pp. 125–68.

3. ASEAN split the timeframe of AFTA’s implementation into two groups (e.g., the implementation of a 5 percent import tariff for inclusion listed products). The first group, an earlier timeframe (2002) was given to its founding members, Indonesia, Malaysia, Thailand, Philippines, Singapore, and Brunei, and the second, a later timeframe for the latest members, Cambodia (2010), Lao PDR (2006), Myanmar (2006), and Vietnam (2003) (known as CLMV). This study focuses on the founding members, as their trade liberalization is earlier than that in the latest group of members.
4. See details in Salvatore, Dominick (2004), *International Economics*, 8th edition, USA: John Wiley & Sons, Inc.

5. Previous studies described are: Deepak Sethi, S. E. Guisinger, S. E. Phelan, D. M. Berg (2003, pp. 315–326). Edward J. R. (1977, pp. 283–297). Jessie P. H. Poon, Edmund R. Thompson and Philip F. Kelly (2000, pp. 427–444). In this article the independent variables which significantly affect FDI are institutional factor (EU, ASEAN, Mercosur, etc) as a representation of “custom union” effect. Kiyohiko Ito and Elizabeth L. Rose (2002, pp. 593–602). M. J. Foster (2000, pp. 45–52). Massimo Motta and George Norman (1996, pp. 757–783). Ping Lin and Kamal Saggi (1999, pp. 1275–1298). Rob Rob and Nikolaos Vettas (2003, pp. 629–648). Ray Barrell and Nigel Pain (1996, pp. 200–207). Thomas A. Pugel (1981, pp. 220–228). Uwe Walz (1997, pp. 63–79). Walid Hejazi and A. Edward Safarian (1999, pp. 491–511). Walid Hejazi and P. Pauly (2003, pp. 282–289).

6. Nominal GDP of host country of FDI as an approach to the market size.

7. Air distance is an approach for this variable.

8. This happened especially when trade creation is higher than trade diversion.

9. Details in [http://www.jhubc.it/factypages/dCheong/4PlummerandCheongFDIASEANIntegration.pdf](http://www.jhubc.it/factypages/dCheong/4PlummerandCheongFDIASEANIntegration.pdf).

10. The TIG was signed by the Economic Ministers of ASEAN and China in November 2004 at Tenth ASEAN Summit in Vientiane, Lao PDR.

11. For detail is in The Singapore Institute of International Affairs (January 2007), *Regional Integration, Trade and Conflict in Southeast Asia*, IISD, [http://www.iisd.org/](http://www.iisd.org/).

12. Megawati Soekarno Putri, President of Republic of Indonesia, speech during Ten Years AFTA Implementation-2002, The Singapore Institute of International Affairs, January 2007.

13. For more details in M. Kahler, ‘Institution-building in the Pacific’, in A. Mack and J. Ravenhill (eds) *Pacific Cooperation: Building Economic and Security Regimes in the Asia Pacific Region*, Boulder, Colo.: Westview Press, pp. 16–39.
14. ASEAN+3 (APT) is designed to achieve financial integration through financial cooperation based on the Chiang May initiative. APT is the future of the ASEAN financial integration. This argument is adopted from a lecture given by Professor Giovanni Capannelli and Professor Takeshi Terada during Summer Institute, GIARI, Waseda University, August 2–6, 2010.

15. Details in http://www.duke.edu/~charvey/Classes/wpg/bfglosf.htm#foreign_direct_investment.

16. Previous research by Verico found that Intra-ASEAN Trade affects FDI inflows in Southeast Asia in the article titled The Impact of ASEAN’s Intra Trade to FDI Inflows from Non Member-States: The Cases of Indonesia, Malaysia and Thailand, 1987–2006 in *Journal of Economics and Finance in Indonesia*, Vol. 55 No. 3, 2007, pp. 253–280). This research found that indicator of \( \text{in} \) in Eq. (2.2) below is the most significant indicator to calculate intra-trade in Southeast Asia. Originally, it has been formulated based on Frankel (1997).

17. AFTA dummy is originally based on the first signature's year of AFTA which is January 1, 1993. Regarding the lag-effect this research uses 1994 as the first year of dummy in which treated as 1 (one). However there was a revision done by the member states in September 1994 then this research also tried to use 1995 as the first year of dummy. Yet both time-dummies (1994 and 1995) were not satisfying the model. Considering Asian economic crises, this research attempted to test 1998 as time-dummy approach for the AFTA's establishment effect. Yet this dummy was still not satisfying the research, as it was known that two out of three observed countries in this Analysis (Indonesia and Thailand) fulfilled their commitment for the CEPT of ASEAN in 1998. Having 1 year dummy lag this article uses 1999 as the first year of AFTA's implementation and treated as 1 (one). Observation years before 1999 got 0 (zero) time-dummy while years after got 1 (one) time-dummy.

18. Urata and Okabe, 2007 in Urata, Shujiro, “Competitive Regionalism in East Asia: An Economic Analysis”, *GIARI Working Paper*, 2007-E-2, December 2007, p. 20.

19. This article found a different story for the EU, NAFTA, and Mercosur in which in these regions, “trade diversion effect” is more
dominant than trade creation. This argument is found in Urata, Shujiro (2007), Competitive Regionalism in East Asia: An Economic Analysis, GIARI Working Paper, Waseda University, p. 20.

20. “Spaghetti bowl” refers to a situation in which various trade agreements come altogether at various levels. At the global level, there was the multilateral trade agreement GATT prior to WTO while at the same time many trade discrimination agreements have been concluded on the basis of the geographic proximity of members, such as the EU, NAFTA, Mercosur, and AFTA. These regional agreements create a set of mixed and complicated trade agreements globally. This term was adopted from the description of a complicated system of interchange rapid in Los Angeles. This term was first adapted to describe complicated conditions in various levels of trade when a scholar, Michael Stutchbury assessed NAFTA as a discriminating regional trade agreement vis-a-vis the principle of “open regionalism” (Stutchbury 1994, ‘Taste Test for APEC as Miami Serves Spaghetti’, Australian Financial Review, p. 27).

21. The Doha Agreement suggested that BFTAs and other sub-regional arrangements do not complicate multilateral frameworks.

22. Verico (2013a) found that BFTA with low significance level had negatively affected the intra-regional trade. This proved that the spaghetti or noodle-bowl phenomenon existed in the context of ASEAN intra-regional trade especially during the observation period.