

**A TALE OF TWO CRISES: DOES CRISIS HELP OR HINDRANCE  
REGIONAL ECONOMIC INTEGRATION IN  
EAST ASIA?\***

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# **A TALE OF TWO CRISES: DOES CRISIS HELP OR HINDRANCE REGIONAL ECONOMIC INTEGRATION IN EAST ASIA?**

## **ABSTRACT**

This paper aims to address the question on the relationship between economic crises and regional economic integration in East Asia. In particular, this paper aims to answer whether or not the crisis helps or hindrances economic integration in East Asia? This paper found that while the on-going market-led regional economic integration was temporary interrupted during the Asian financial crisis in 1997/98, the process has been supported and hastened by the rapid growth of regional and bilateral trade and economic agreement, that mostly emerged following the 1997/98 Asian financial crisis. Similarly, the 2008/09 recent global financial turmoil has also become another wake up call for East Asian economies to resume and further strengthen the development of regional policy initiatives and forum to deepen the regional economic integration in the region. Although the natural (*de facto*) regional concentration of trade and FDI activities in East Asia has increased recently, the on-going global financial downturn has indeed re-exposed that the region remained heavily dependence to external markets.

**Key Words:** Regional Economic Integration, Asian financial crisis, Global financial crisis, Free Trade Area, Gravity Model.

## 1. Introduction

Does the crisis help or hindrance regional economic integration in East Asia? <sup>1</sup> Arguably, the Asian financial crisis in 1997/98 is the turning point for the rise of regionalism in East Asia. Soesastro (2006), for example, argued that the financial turmoil in 1997/98 has reinforced the awareness of countries in East Asia on the need of some self-help mechanisms to solve the crisis and to anticipate the future crisis, leading to the development of several functional integration programs, such as the Chiang Mai Initiative, the network of bilateral swap arrangements. In a similar vein, Elliot and Ikemoto (2004) found that the Asian economic crisis might bring about the acceleration in the process and the '*market-led*' regional integration, instead of hindered the regional integration. Furthermore, the Asian financial crisis has also stimulated an increasing interest on the source import from within the region. On contrary, however, Bustelo (2000) suggested that the East Asian crisis have undermined the pace of economic integration on the short and medium-term and lessen the interest of the Asian political leaders on the open and more informal regionalism.

As regard to the recent global financial crisis, Plummer (2009) argued that the recent global financial turmoil is likely to increase the potential benefit from regional cooperation and thus stimulate support for it, as the motivation of economic cooperation among Asian economies is largely to increase efficiency and improve the competitiveness. He, moreover, also argued that most of economic factors related to cooperation are strong and overwhelm those against it, although the answer for the question of whether or not the crisis will enhance the prospect for deeper and extensive cooperation in Asia is still inconclusive. Correspondingly, the Straits Times (2009) reported that in the signing ceremony of the 14<sup>th</sup> ASEAN Summit in Cha-am, Thailand on March 1<sup>st</sup>, 2009, Thai Prime Minister Abhisit Vejjajive stated that the ASEAN's host and current chair noted that the recent global financial turmoil made the regional integration even more urgent.

Nevertheless, the Jakarta Post (2009) reported that the recent global financial turmoil has become a main barrier for countries in Southeast Asia and their lofty agenda for regional economic integration as some of ASEAN member countries have already weaken the spirit of common market by taking of some "protective" measures, so call to buy local products and bans on hiring foreign workers amid the global economic downturn. For example, Indonesia launched import restrictions on 500 products on December 2008 to restrain the illegal product and called on the civil servants to purchase local product to cope the declining export demand, while the Malaysian government suppressed the hiring of foreign workers in factories, stores, and restaurants in December 2008 and instructed firms to cutback foreign employees first if they need to cut their employees.

Against those aforementioned contradiction arguments and facts, this recent paper aims to address question on the relationship between economic crises and the regional

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<sup>1</sup> The definition of East Asia in the economic integration literature has been arbitrary used. It can consist of China, People's Republic of (PRC); Hong Kong, China; Japan; Korea, Republic of; Mongolia; and Taipei, China, or the ASEAN, Japan, South Korea, and PRC (ASEAN+3), or even ASEAN, PRC, South Korea, and Japan, as well as Australia, New Zealand, and India. This paper adopts broader definition, i.e.: ASEAN+6 countries or countries included in East Asian Summit (EAS).

economic integration in East Asia. In particular, this paper aims to answer whether or not the crisis helps or hinders the economic integration in East Asia. To avoid some technical problems and to make it focus, the definition and scope of the economic crisis and regional economic cooperation will be limited. The economic crisis solely refers to the two crises, i.e.: the Asian financial crisis in 1997/98 and the recent global financial crisis 2008/09. Meanwhile, the regional economic integration is defined in broader terms, both in term of regionalization (as economic process) and regionalism (as a political project). As explained by Fawcett and Hurrell (1995), the first refers to a process involving mainly non-state actors (private companies exporting to, importing from, and investing in neighboring economies), while the later is related to a project calculated by states in order to promote a political framework for regionalization.

The relationship between the economic crisis and regional integration will be analyzed by two different, yet complementing, tools of analysis. First, following the works of Kawai (2005) and Capannelly, Wha Lee, and Petri (2009), this paper will analyze the trend and evolution of some regional economic integration indicators in certain areas, including trade integration (intra-regional trade share, intra-regional trade intensity), investment integration (intra-regional foreign direct investment share), and financial integration (bank lending differential, bond yields differential, and intra-regional port-folio share). In addition, this paper will also review the regional cooperation initiatives and regional forum policy dialogue and coordination to enhance regional economic integration in East Asia. Special emphasize will be given in the pre- and post-periods of economic crises.

Second, this paper will also run a modified gravity equation following the works of Endoh (2000), Soloaga and Winters (2001), Elliot and Ikemoto (2004), and Urata and Okabe (2007). Unlike in the regional economic integration indicators that cover almost all sectors in the economy, the relationship between economic crisis and regional integration in the gravity model will only focus on trade sector. Through this model, this paper will see whether there have been increasing or decreasing intra-regional trade bias among countries in the region during the pre- and post-period of economic crises as will be seen in the changing or movement of the East Asia's RTA dummy variables. The further detail of the model and its analysis will be explained later in the next section.

Noteworthy, however, the analytical framework above may not perfectly capture the relationship between those two phenomena. The frameworks only consider what the likely indicators can be used for explaining the relationship between them. These indicators will only possible to identify the direction whether the regional economic integration is strengthen or weaker during the pre- and post-crisis period and they are not aimed to assign the causal relation between these two phenomena or the magnitude of the effects of economic crises on , as it would be difficult if not impossible in most cases. This condition is inevitable due to the fact that the regional economic integration movement in East Asia is new and the economic crisis, especially the recent global financial crisis, is still on-going, while extrapolation from experience in other regions is also impossible as in any case, no empirical discussion of the links between crisis and regional economic integration exist for other region.

The rest of the paper is organized as follow. Section 2 provides the brief overview of the causes, feature, and the implications of the Asian financial crisis and the current global financial crisis, before discussing the two analytical frameworks above. This section aims to give better perspective on the analysis in the next following sections. Section 3 reveals the trend of economic integration in East Asia. In this section, several regional integration indicators in trade, investment and financial sector are presented to see the progress of regional integration in East Asia before and after the two crises. Section 4 explains the gravity model and the data used in this study as well as the result and analysis of the model. Finally, section 6 summarizes the major findings of the study.

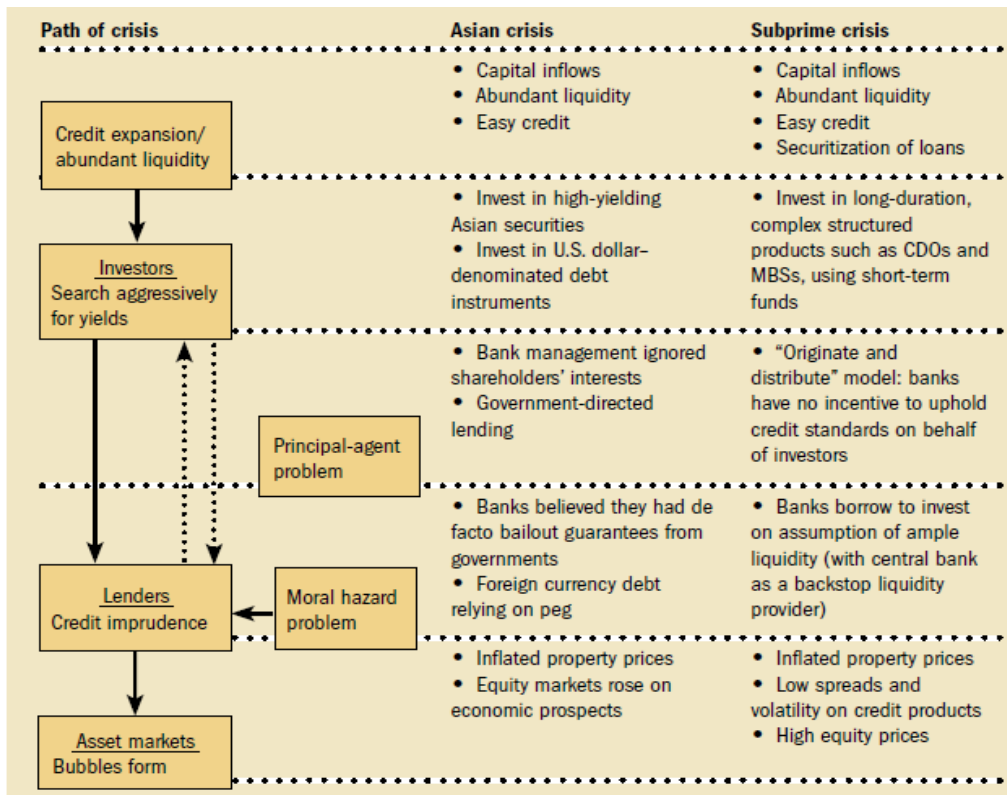
## **2. Asian and Global Financial Crises: Causes, Features, and Their Implications to East Asia**

This section presents a simplified overview on the story of the Asian financial crisis and the recent world-wide financial turmoil, including the causes, the features, the policies faults and the implications of those crises to East Asia. Note that this section is not aimed to make a grand assessment of those crises, although there have been various hints from the previous works. It is because the issue of each crisis, especially the Asian financial crises, is not a single crisis, but rather several crises as each crisis affected countries are obviously different from one another, both in terms of the their development stages and their institutional settings. This section draws some major encompassing themes and some common characteristics in the development of the two crises.

The two crises, as explained by Khor and Kee (2008), have common similarity in nature, although the buzzwords and condition of crisis struck countries different from each other. The epicenter of the crisis had shifted from Asia to United States and Europe, while the currency pegs, excessive borrowing, and foreign debt that dominated the Asian crisis were significantly different from some catch phrases that frequently used in explaining the recent global financial crisis: securitization sub-prime mortgage and collateralized debt obligations (CDOs).

Yet, both crises have a common background: over liquidity, excessive and incautious credit expansion; lax credit standard; and rapid increases in property prices. Both crises, moreover, was also triggered by investor panic amid the uncertainty over the securities and asset valuations that formed a liquidity run and increasing insolvency in the banking system. Furthermore, both crises were caused by similar underlying problems, so called the classical principal-agent problem and moral hazard problem. The explanations are, in short, shown in the figure 1 below.

Figure 1: The Parallel Paths of Asian Crisis and Subprime Crisis



Source: Khor and Kee (2008)

## 2.1. The Asian Financial Crisis

The Asian financial crisis began in mid-1997 with the collapse of Thai currency, the bath, after its peg was abandoned as the Bank of Thailand was out of dollar reserves required to support its peg with dollar. The currency crisis in Thailand then rapidly spread to other East Asian countries and developed into a total financial crisis of regional and international scale as foreign investors and lenders became more critical on the fragilities in neighboring economies and quickly drew out capital from the region.

The Asian financial crises that affected mainly the Asia-5 economy (Thailand, Malaysia, Indonesia, Philippines) were multifaceted, although these crises can be understood in all cases as the impact of liberalization and under regulation. For example, Bustello (1998) explained that while Thailand, Indonesia, and the Philippines experienced a considerable currency appreciation in the previous years before the crisis outbreak, that case was not happened to Malaysia and South Korea. Unlike in the other crisis affected countries, moreover, the current account deficit in Indonesia and South Korea was not very large in the two years before 1997. In the same vein, Miyao (2004) also found that the Thai crisis was mainly caused by weak economic fundamentals, while Indonesian and Korean crises was probably more caused by the financial panic.

In literature, there have been various theoretical explanations offered to explain the Asian financial crisis. Bustelo, Garcia, and Olivie (1999) raised three categories of models to

explain crisis, namely the first generation model, second generation model, and contagion model. Similarly, Chowdhry and Goyal (1999) also proposed fairly similar categorizations, including: the fundamental model, the second generation model, the moral hazard model, and self-fulfilling run liquidity model. Those scholars, moreover, also agreed that the Asian financial crisis can not solely be explained by the “generation” models, which emphasized only on fundamental such as current account, deficits, inflation, real exchange rate appreciation, etc., or on policy mistakes, as the moral hazard or the self-fulfilling run also played roles in the Asian financial crisis.

Furthermore, Joosten (2004) argued that unlike the past crises, the Asian crisis was neither merely be explained by the first-generation model which emphasizes the macroeconomic policies that were unsuited in maintenance of a fixed exchange rate, nor by the second-generation model which focus on self-fulfilling expectation. Rather, the Asian crisis has emerged the third generation of financial crisis literature, which focuses on moral hazard problems, financial fragilities, and weaknesses in corporate balances, and includes the contagion of crises. Meanwhile, Miller and Luangaram (1998) concluded that both factors: creditor panic and fundamental problems involved in building the crisis and interacting in a vicious downward spiral, after proposing two broad existing categorization in the discussion on the origin of Asian crisis: the economic fundamental views and the financial panic views. They revealed that creditor panics certainly occurred, yet it was generated by original problems of overinvestment and overvaluation in some of East Asian countries.

Therefore, it is surely appropriate if this section also combine all the explanations of the Asian financial crisis<sup>2</sup>. Like Gevel (1998), this section also seen that the Asian crisis as a tale of rapid growth constructed on an unfinished groundwork liberalization which was left exposed to the twist of international capital market. The crisis is mainly one of debt financing, in which the borrowers was abided with inability to continue the financing of their loans as the creditors have run off from the Asian currencies. Similarly, Bustelo, Garcia, and Olivie (1999) also revealed that the Asian success story, together with rapid and indiscriminate financial liberalization, yet lack of proper regulation and supervisory framework, has endangered huge capital inflow which, in turn led to economic weaknesses: increasing balance of payment constraint, the appearance financial fragilities and productive problems as presented in a property bubble and a decline in investment efficiency.

Over decades prior to Asian financial crisis, the East Asian countries experienced unprecedented economic growth and structural transformation, leading to a rapid increase in living standard. Some East Asian economies, namely Japan, Taiwan, South Korea, and

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<sup>2</sup> This section has drawn extensively from and is highly indebted by the previous works of: Bustelo (1998); Corcetti, Pesenti, and Roubini (1998); Glick (1998); Bustelo, Garcia, and Olivie (1999); Chowdhry and Goyal (1999); Joosten (2004); and Corden (2007). For country-by-country analysis, see for example: Hill (2000) on Indonesia, Athukorala (2001) on Malaysia, Warr (1999, 2002, 2005) and Siamwalla (2005) on Thailand, Lee and Rhee on Korea, and Corden (2002) on exchange rate policies and experience.

five Southeast Asian countries (ASEAN-5: Indonesia, Malaysia, Philippines, Singapore and Thailand) was categorized as high-growth, “tiger economies in the 1970s literature on the Asian economies. The World Bank (1993) pointed out those nations, except Philippines, as “miracle” economies in East Asia. As reported by The ADB (1999), those East Asian economies characterized generally sound macroeconomic fundamentals: rapid and sustained growth, high saving-investment rate, moderate inflation, fiscal surpluses or balances, low public debts, ample of foreign exchange reserves, and apparently sustainable capital account.

Unfortunately, these successes has also brought those economies became victims of their own successes, as the domestic and foreign investors underestimated the countries’ economic short-comings that just started apparently following the rapid and indiscriminate financial liberalization. Redelet and Sachs (1998) called it as “crisis of success”. They explained that the East Asian economies experienced mounting imbalances and weaknesses both at the microeconomic and macroeconomic level on the set of the crisis. Similarly, Moreno, Pasadilla, Remolana (1998) also argued the rapid growth have covered the fundamental shortcomings in Asian financial system that become the root causes of the crisis. The lack of incentives for effective risk management formed by visible and invisible government pledge against failures was the main reasons for these shortcomings. Moreover, vast capital inflow, which was partly provoked by fix exchange rate system, has also heightened the shortcomings of financial sector in the Asian crisis affected countries.

The Asian miracle has happened despite—or, as other would say, because of—considerable distortion of the market mechanism in the financial sector. To large extend, according to Gevel (1998), the Asian successful performance can be attributed to stability-oriented macroeconomic policies, with reasonable inflation, broadly balanced budget, the avoidance of overvalued exchange rate, and export-oriented production promoting the implementation of high technology. Nevertheless, Corsetti (1998) argued that in addition to a disciplined macroeconomic policies management and maintaining controllable budget deficit, the growth-oriented policies strategies with variety features of centralize coordination of production and resource allocation, protection of domestic industries, as well as explicit and implicit warranties from government on private investment also played the role in the success. Such policies allowed firm to undertake highly risky project by relying heavily on bank credit. Initially these distortions had not transformed into high domestic exposure to international shocks due to extensive controls and restriction to foreign borrowing.

The condition started to change with the process of domestic and international liberalization in the late 1980s and early 1990s, when the international capital markets became progressively more accessible and domestic markets were deregulated. According to Bustelo, Garcia, and Olivie (1999), since the 1990s East Asia economies pursued, albeit in different degree, a process of rapid financial liberalization, both domestic deregulation and external opening. The barriers to entry in the financial sectors, the restrictions on corporate debt financing and cross-border borrowing and interest rate controls were loosed or abolished, yet it was not complementing with adequate regulation

and proper supervision. At the same time, moreover, the governments also discarded coordination policy in investments and borrowings.

The rapid and indiscriminate financial liberalization, together with the East Asia successful track record, stable nominal exchange rate as the currency pegs to the US, and the fall of asset yields in developed countries, have attracted huge capital inflow, mainly in the form of short-term bank loans. The large capital inflow, on one hand, has fueled a real currency appreciation, which led to slowing export. Moreover, the increasing competitive pressures from China, the stagnation of the Japanese economy, and the plunged in the price of electronic parts have also adversely affected the export growth which in turn exacerbated the current account deficit. The increasing current account deficit was financed by attracting more capital inflow from abroad, often in the form of short-term capital, placing the countries in the high vulnerability from a reversal in capital flows.

On the other hand, the huge capital inflow preceded by the financial liberalization has also provoked credit boom, leading to an overinvestment in the manufacturing sector and bubble in the stock and property markets. The easy access to credit for private sector has aggravated the on-going overinvestment, especially in manufacturing sector with excess capacity, inflated property, and booming stock market. Overinvestment, along with the significant increases in unit labor cost, aggravated the deterioration of capital profitability and efficiency of investment in several manufacturing sectors since the early 1990s. While the average GDP decreased from around 10% to 8% during the period of 1986-90 to 1991-95, the investment rate increased in the same respective period. In the mid-1990, the investment rate exceeded 40% of GDP in Thailand and Malaysia and 35% in Indonesia and South Korea. At the same time, the ICOR had also shown an increasing trend in South Korea, Thailand, and Malaysia, suggesting that the efficiency of investment and capital profitability was already dropping in the four years prior the 1997/98 crisis (Bustelo, Garcia, and Olivie, 1999).

As for the property bubble, in particular, overinvestment and overcapacity problems were also concentrated in the non-traded sector. Unlike in South Korea, where most of investment were concentrated in manufacturing sector, in many other Asian countries there were strong evident that speculative overinvestment in land and real estate occurred as reflected in more rapid increased in the stock prices in property sector than in other sectors during the period of 1990-96. Nevertheless, these investment projects brought out low profitability as the rental yields of real estate were already low before the onset of the crisis. In mid-1997, the rental yields were as low as 3.5% in Hong Kong and 3.9% in Singapore, while it was higher in other countries due to pre-down turn expected vacancy rate basis (Corsetti, Pesenti and Roubini, 1998).

The rapid and indiscriminate financial liberalization has also magnified the financial fragility in the domestic financial sector. As explained by Bustelo, Garcia and Olivie (1999), the financial liberalization without a proper oversight and inadequate regulation has allowed financial intermediaries to lessen their risk-assessment quality, as low capital adequacy limits and high legal lending limits contributed to bank over lending. In

particular, the financial intermediaries excessively borrowed for loan from international banks and used it to finance domestic long-term investment in domestic currency. In addition, Lee and Rhee (1998) revealed that after the capital market liberalization, the domestic firms carelessly increased their investment in order to take gain from the low cost of foreign funds, while the foreign investor offered funds to domestic financial institutions without giving much attention as both of them perceived having implicit or explicit government guarantees.

The expectation that national government and international institution would save the failure banks (and non-banks), as explained by Miller and Luangaram (1998), have apparently provoked excessive risk-taking. Firms that experienced deterioration in their net equity have an incentive to “gamble for resurrection” and this moral hazard problem especially occurred in the case of banks. As a result, both banks and non-banks were highly heavy leveraged and over indebted foreign short-term liabilities. According to Kawai, Framer, and Schumukler (2001), the private sector had raised large amount of money from abroad and did not hedge against foreign currency risks, amid the perceived promise of a pegged exchange rate. A large of capital inflows and a significant proportion of bank lending was transmitted into non-productive assets for purchasing real estate, property and equity, causing asset price bubbles.

In a good time, according to Lee and Ree (1998), this asset bubbles speeded up the bank credit by increasing the value of collateral, yet it also, at the same time, exaggerated the vulnerability of financial institutions to the deterioration in domestic real estate and equity markets. Lane, *at al* (1999), moreover, explained that this condition creates serious currency and maturity mismatch and the balance sheet problems, which placed domestic banks and non-banks financial institution in highly vulnerable to change in exchange rate and interest rate. Furthermore, it also put these economies susceptible to self-fulfilling ‘bank runs’.

By the mid-1990s, the capital inflow began to gradually decrease and financial intermediaries started to stumble, following the deterioration of macroeconomic conditions in most of region and a string of large-scale corporate bankruptcies. The shock started in Thailand and rapidly spread to the rest of the region. Kawai, Framer, and Schumukler (2001) explained that Thailand was the worst hit, although exports had deteriorated with the decline in world demand in many Asian economies. In 1996 the Thai’s export growth contracted by 1% after increasing by 20% in 1995. At the same time, the price of property had started to decrease as the supply of office started to exceeded demand, following the increase of vacancy rates in 1996. Moreover, several finance companies and few commercials banks also faced serious difficulties in early 1997 and the central bank decided to offer liquidity support, which only build up the funds in the market ready to attack the currency peg.

The attack on the Thai baht in the mid-1997 prompted investors to take a fresh look at the Asia and test the strength of currency pegs and financial systems in the region. The financial panic erupted, amid a series of missteps by the Asian governments, market participants, the IMF, and other international community. Uninformed investors

reevaluated the risks associated with Indonesia, Malaysia, and Korea when they saw problems arising in Thailand, and decided to pull their investments out of these neighboring countries. According to IMF (1999), Indonesia, Korea, Malaysia, Philippines, and Thailand suffered a net outflow of private capital as high as a negative \$85 billion in 1997, after receiving a net inflow of private capital as high as \$60 billion in 1995 and \$63 billion in 1996. During 1996 to 1997, the net difference in these flows was a negative \$85 billion, close to 10% of their combined GDP. This trend continued in 1998 and 1999, accounting about \$29 and \$18 billion, respectively.

The result was an unprecedented crisis and a much deeper crisis than was either necessary or inevitable occurred in Asia. After the second half of 1997, the value of the most affected East Asian currencies had dropped by 33%-75% compare US dollar. During June 1997-April 1998, stock index also tumbled markedly, falling 36% in Indonesia, 43% in Korea and 22% in Thailand (Moreno, Pasadilla, Remolana, 1998). Moreover, interruption in bank and borrower balance sheets have provoked the shutting down of financial institutions and the closure of many firms, as well as soaring interest rates due to investor uncertainty. Significant currencies depreciation and increasing interest rate deteriorated the corporate balance sheets as the Non-performing loans were mounting. The peak of NPLs (as a share of total loans) in 1998-99 ranged from 10% in Philippines and 20% in Malaysia to over 25% in Korea and Thailand, and exceeding 40% in Indonesia (Joosten, 2004).

In addition, the reversal in capital outflows brought about large adjustments in external current account and economic growth. During 1997-1998, the current account jumped from deficit of 5.9% of GDP to surplus of 13.2% for Malaysia and from deficit of 2.1% to surplus of 12.8% in 1998, leading by a plunge in imports rather than an export expansion. This crisis did not only dramatically slow down the economic growth, but also changed the sectoral composition of economic outputs. Real GDP dropped in 1998 by 13.1% in Indonesia, 10.5% in Thailand, 7.4% in Malaysia, 6.7% in Korea and 0.6% in Philippines. At the same time, the share of agriculture sector in GDP expanded in Indonesia, Thailand, and Malaysia, at the expense of the service sector and constructions sectors (Joosten, 2004).

The social cost of the crisis was also dramatic. Un(der)employment increase markedly in Korea and Thailand, while in Indonesia the adjustment occurred through falling real wages in the formal sector and departing migrant workers. Moreover, the crisis also provoked a movement of labor into the low-paying informal sector in Indonesia and Korea. Moreover, the crisis and its subsequent exchange rate depreciation also increased the prices of primary goods, which in turn eroded real wages. Consequently, the poverty rate rose significantly, although not as dramatically as initially feared (Joosten, 2004).

## **2.2. The Recent Global Financial Crisis**

Unlike the Asian financial crisis or other previous crises that originated mostly in the emerging markets, the global financial crisis were the crisis made in and exported from

United States, particularly in the Wall Street. This crisis was triggered by the outbreak of the US subprime mortgage fallout in mid-2007 and the consecutive liquidity and confidence crisis that has swept whole world and peaked after the Lehman Brothers bankruptcy in September 2008. The bubble burst caused big problems in the securitized mortgage market and in the real economy. The effects on the real economy were so large, as the bubble was a huge bubble, which actually not only happened in the U.S., but also in a number of other countries such as UK, Spain and Ireland.

There are a number of theories as to what led to the mortgage crisis and the recent global financial crisis. However, many economists and experts believe it came about through the combination of a number of factors in which subprime lending played a major part. Kawai (2008), for instance, argued that the recent global financial crisis was prompted by the breakout of the US subprime mortgage crisis in the mid-2007 and the following liquidity and confidence crisis. He, moreover, explained that the causes of the US subprime mortgage crisis rooted in both market and regulatory failures, i.e.: policy mistakes in the US, the global imbalance and the weaknesses in the regulation and supervision of the financial sector in the country. Similarly, Aiginger (2009) explained that the crisis originated not only from financial sector but also from macroeconomic imbalance, regulatory failures, and inadequate policy coordination.

Schneider and Kirchgassner (2009), meanwhile, argued that the US sub-prime mortgage crisis was allowed by the liberalization at both domestic and international level, that came with well-intended financial innovations, such as complex derivative securities, “conduits” and “structured investment vehicles”, yet without regulations at all. The IMF (2009), in particular, pointed out some failures both in the global architecture and regulatory failures at a number of levels: 1) excessive leverage and risk taking, leading by a long period of low interest rates and high growth; 2) weaknesses in the approach to domestic and international financial regulations; 3) fragmented regulatory structures; 4) inadequate disclosure of risks; 5) short comings in crisis management and bank resolution frameworks. In general, financial regulators were not armed to examine the risk concentrations and imperfection incentives behind the financial innovation boom. Both market discipline and regulation was not able to control the risks creating from rapid innovation and increased leverage, which had been developed for years.

The story of this recent worldwide financial turmoil can be traced back to the booming of housing market. It was started in the 2000, when the 1990's expansion, one of the longest cyclical expansion in US modern history, ended as the stock markets declined led by the busting the tech bubble. After the busting of the tech bubble, the economic condition became getting worst with the terrorist attacks of September 11<sup>th</sup>, 2001, which in turn led to a recession in the U.S. economy from 2001 to 2002. Contrarily to what expected, however, the economic recession was quite benign. The economic recovery was possible due to the persistent housing boom. The “wealth effect” was continuously overwhelm the drop in stock market led by technological stocks and the “housing bubble” replaced the “new economy bubble” (Guillen, 2008).

The housing bubble was fed by the Fed's lax monetary policy. As explained by Rana (2008), the US Fed conducted lax monetary policy in order to avoid the risk of recession,

following the busting of the tech bubble in 2000 and 9/11 terrorist attacks in 2001. The Fed has aggressively cut its short-term interest rate from 5.98% in January 2001 to 1.73% in 2003, and then stayed at about that level until 2005, leading to the abundant liquidity and credit boom in the US. Allen and Carletti (2009) explained that this historically low interest rate also suddenly created an incentive for the people to go out and buy houses, as the rise of housing price overwhelmed the interest rate. Similarly, Kawai (2008) explained that the low interest rate has lessened the cost of borrowing for households and generated financial institutions to aggressively leverage their balance sheets. Meanwhile, Guillen (2008) revealed that this lax monetary policy has excessively provoked both indebtedness and carousel of new financial instruments, bonds, securities, and derivatives.

In line with the Fed's low interest rate policy, various government policies have also encouraged people, especially the poor, to buy housing. Whalen (2008), for example, pointed out that a detestable public policy partnership, called the National Homeownership Strategy, which initiated in Washington and consisted of hundreds of companies, banks, associations and government Agencies, to increase the accessibility of "affordable housing" via the use of "creative financial techniques" was one of basic issues that to be the roots of the problems. The partnership for affordable housing was embodied by the creation of the real estate, home building, and government-sponsored enterprise (GSEs), such as Fannie Mae and Freddie Mac, which based on legal mandates such as the Community Reinvestment Act (CRA), aims to "encourage" the banking industry to target increased home ownership in the U.S. Furthermore, various other aspects, including the tax advantages of that being able to reduce interest on mortgages compare to no deductibility of rent payment, have also lowered cost of borrowing for house hold and create enormous demand for buying houses, that finally led to housing bubble (Allen and Carletti, 2009).

The credit boom in housing sector was also aggravated by the large and growing global imbalance—the current account deficits in the US and surpluses in Asia—and the recycling of Asia surpluses through purchase of US treasuries and other debt securities. Over the last ten years, there has been a huge increase of global surplus of capital pursuing to be invested or be turned to profit. After the Asian financial crisis and the so-called "dot-com boom", much of the world's "hot money" or "hot investment capital" started to flow into housing markets, not only in the U.S. but also in other countries (Nanto, 2009). The liberalized financial markets across the globe allowed and reproduced growth and transmitted it into many parts of the globe. The growth rates differences among different country and different products (precious metals, oil, food stuffs, etc), as well as for different industries allowed for and imposed very different return (Aiginger, 2009).

At the same time, China, Russia, and other countries in Asia have developed their currency reserves and recycled the surplus through purchase of US treasuries and other debt securities including the Fannie and Freddie mortgage-backed securities, partly because they wanted to restraint their currency appreciation (Aiginger, 2009). Moreover, the large proportions of reserves invested in the US debt instruments, instead of in the

form of US company equities, was also caused by the difficulty in buying the equities of US companies as can be seen in the case of the blockage of China State oil company (CNOOC)'s plan to buy Unocal by the US Authorities due to security reasons. Those countries bought numerous amounts of Treasuries, Fannie and Freddie mortgage-backed securities, and many other debt securities, especially for mortgage borrowers and these were not only occurred in the U.S but also in Europe (Allen and Carletti, 2009).

Kawai (2008) explained that foreign capital inflows permitted the Americans to finance their excessive spending, particularly for housing purchases. Similarly, Nanto (2009) explained that this did not only help U.S interest rates at low, but also tended to maintain mortgage interest rate at lower level and attractive levels for prospective home buyers. Unfortunately, as argued by Allen and Carletti (2009), this huge supply of debt facilitated the decline in lending standards to ensure that it was all absorbed. Furthermore, Rana (2009) suggested that the global imbalance has made the credit boom possible and it has led to increase the vulnerability in US by nourishing the construction boom and expanding the credit to sub-prime lenders—people who did not meet quality requirement.

The weak regulatory and supervisory systems in the US also took a part to the fault. In particular, the Clinton Administration policy, which revoked the 1930's Glass-Steagall Act and replaced it with so called New Financial Architecture (NFA) in 1999, has partly contributed to the policy failure causing the sub-prime mortgage crisis. With the elimination of the Glass-Steagall, that prohibited the fusion of commercial and investment banking, the big commercial banks become integrated into giant financial corporations that consist of investment banks and mutual, hedge and private equity funds as well as bank-created SIVs. Unlike the 1930s regulations, these giant corporations were not closely monitored and tightly controlled under the NFA system, although they were clearly "too big to fail" (Coretti, 2008). At the same time, moreover, the minimum levels of capitalization required by the Basel Bank for International Settlements enforced banks to change their business to non-bank intermediaries and off-the-book operation (Kregel, 2008).

Consequently, Banks and investment banks involved in complex derivative securities and widened their operation, while the existing regulatory system could not able to reach investment banks. This policy has provided opportunity for the banks to acquire the full range of risky assets, including securities, derivatives, and structured products, either directly on the balance sheet or indirectly through off-balances sheet channel (Rana, 2008). Particularly, moreover, this policy has allowed the financial institution to aggressively leverage their balance sheets, leading to the boom in construction sector without sufficient equity to back it (Allen and Carletti, 2009). In addition, the national and international regulations also overlook to keep pace with innovations on the financial market and the existing regulation was gradually weakened by the innovation of a numerous of new financial instrument, by an increased globalization of the financial markets, and by the deregulation of the market (Aiginger, 2009).

The aforementioned developments above coincided with the greater popularity of the securitization of assets, particularly mortgage debt, including the subprime mortgages,

into collateralized debt obligations (CDOs). Elmeskov (2009) argued that this financial innovation might have taken an independent role in the on-set of the crisis, as financial instrument that generated the emergence of the sub-prime market and which eased housing equity withdrawal, in some cases also promoted through tax breaks for mortgage interest payment, might have magnified demand for housing and helped to increase its price.

The development securitization has created poor incentives and moral hazard problem in the U.S. mortgage industry. Allen and Carletti (2009) explained that unlike in the previous era in which the financial institutions would have held on and collected interest and repayment, in the recent era the banks and saving and loan association (S&Ls) repackaged mortgage loans into bundles of mortgage-backed securities (MBSs) and sold them to investors including investment banks. MBSs were usually re-packed, including add some other type of stocks, into CDOs and sold to investors. This led to excessive and irresponsible mortgage lending and moral hazard, as financial did not keep hold of the mortgage loan. Nanto (2009), moreover, explained that another problem was that the mortgage originators were also mortgage finance companies whose the major aims was to inscribe mortgage using funds that offered by banks and other financial institutions or borrowed. As they were paid for each mortgage originated, but had no responsibility for loans become bad, they will tend to increase the number of loans concluded as much as possible.

Aside the banks and other financial institutions, the cantankerous incentives and complexity for credit rating agencies also partly took a role to the faults. Nanto (2009) revealed that while credit rating firms were paid to rate securities based on information given by the issuing firms utilizing their models for assessing risk, they had limited experiences with credit default swaps at the “systematic failure” tail of the probability distributions. The models appeared work in the normal conditions, yet had not been examined under the crisis conditions. In addition, the credit rating agencies also probably have suggested clients on how to structure securities in order to get higher ratings.

Eiginger (2009), furthermore, explained that enjoying the increasing proportion of income from undertaking ratings of the securitized products, the rating agencies started to lose their objectivity and to give ratings that were not justified: the good ratings (AAA) of the securitized loans. With this good rating, the buyer only required to retain a very small proportion of equity as security to cover their risks, leading high demand for this innovative, complex structured product by the investors all over the world. Given that the housing prices increased continuously, the creditor felt safe in lending on appreciating collateral, which in turn fuelled housing demand and prices, peaking in mid-2006.

To sum up, the low interest rates, the large inflows of foreign funds, and the weak regulatory and supervisory systems in the US, combining with the fast innovation development new financial instrument, especially securitization has created easy loan conditions for some years prior the financial crisis, generating a bubble in property market and provoking debt-financed consumption. The percentage of families owned their own houses increased from 44% in 1940 to 64% in 1994 and 69% in 2006.

Meanwhile, the real property values shoot up from about US\$10 trillion dollars in 2000 to nearly US\$20 trillion dollars in 2005, the one of highest asset bubble in history (Greenspan, 2007). In turn, the U.S. household debt-income ratio increased to 130% in 2007, or 30% higher than the average amount earlier in the decade (Bianco, 2008).

The bubble bursts when the interest rates started to increase as a result of high inflation, tight monetary policy, and a saturated housing market. Aiginger (2009) described that the global financial crisis indeed struck when economy was good, yet on the declining trend. In 2008, there were large shortages in oil, raw materials and food, which in turn speeding up inflation and encouraging speculation. Once housing prices started to drop in the summer of 2006, subprime defaults began to increase and escalated even to prime loans and other consumer credits. As the price collapsed and with them the collateral for the loans also declined, many financial institutions started to be distressed, especially for those with large exposures to subprime-related structure products, culminating to a series of failures of several large US financial entities, such as Bear Stearns, American Insurance Group, Lehman Brothers, and Washington Mutual. Then, the subprime mortgage crisis spread worldwide, especially in 2008, as the transaction in worldwide interbank market started to stop because of the rising perception in the counterparty risks, which then worsening the liquidity problem even for healthier financial institutions.

As consequences, the global credit losses on US loans and securities was about US\$ 2.9 trillion dollars and projected credit losses on loans and securities originated in Europe and Japan bring the total global credit losses to over US\$ 4 trillion dollars (IMF, 2009a). Total support for financial system given by governments and central banks in the U.S., the Eurozone, and the U.K. accounted nearly US\$9 trillions, consisting of US\$ 1.95 trillion in liquidity support, US\$2.52 trillion for asset purchases, and US\$ 4.48 trillion in government guarantees (IMF, 2009b). Moreover, the US fiscal deficit for both 2009 and 2010 is estimated to exceed 11% of GDP, and the ratio of US gross government debt to GDP is expected to increased from 62% in 2006 to 97% by 2010 (IMF, 2009c).

Furthermore, the IMF's World Economic Outlook (WEO) projected that US economic growth would grew by 0.6%, yet, afterward the July update was -2.6%, following the 6% falling in real GDP in both quarter fourth quarter 2008 and the first quarter of 2009. The unemployment rate increased from 4.9% in the pre-crisis to 9.7%. The household saving rate has increased from nearly zero 2007 to about 5% and could increased from 7 to 8%, reflecting a significant drop in US equity and housing prices (Mussa, 2009). Meanwhile the world output would be expected to be contracted at 1.3%, compared to 3.8% in April 2008. The global trade volume (goods and services) was also predicted to decrease by 11% in 2009, compared to the strong growth of 8.2% during 2006-07. The net capital inflow to the emerging market economies declined from the peak of US \$617 billion in 2007 to US\$109 billion in 2008 and was expected to record net outflows of US\$ 190 billion in 2009 (IMF, 2009).

How will the above conditions be channeled to and influenced East Asian economies? Theoretically, the crisis can be transmitted to other countries through various channels. Griffith-Jones and Ocampo (2009), for example, analyzed the impact of the recent global

economic on developing economies through three channels of transmission or the reversal of the three positive shocks that happened during the recent boom: rapid growth of remittances, capital flows, and trade. In fairly similar vein, Naude (2009) also pointed out three main channels transmitted the global financial crisis on developing countries: (1) banking failures and reductions in domestic lending; (2) reductions in export earnings, and (iii) reductions in financial flows to developing countries.

For East Asia, in particular, Eichengreen and Park (2008) explained that there has been a debate on whether East Asia would be de-coupled from the global economic crisis centered in U.S., after the recent financial crisis. The “coupling” views, on one hand, argued that the East Asia can not be whipped out from the U.S. subprime crisis, as the health of the US market for East Asia’s export of final product is important and the development of intra-East Asia trade can not be replaced for the US economic fallout. On the other hand, the “de-coupling” view suggested that the East Asia has been de-coupled from the US and Europe, because the historical data, reflected in the declining of U.S. and Europe-East Asia business-cycle correlations, showed that the US and European economies’ impacts to East Asia experienced declining overtimes.

According to Kawai (2009), the affect of global financial crisis on East Asian economies would reside at somewhere in the middle of those views. He explained that East Asia’s financial markets are closely connected with US financial markets and have in fact been distressed by the US financial turmoil, as reflected in the sharp declines in stock prices throughout the region. Moreover, the credit problems can also affect East Asia economies as it certainly deteriorated the capital inflows to the regions. However, East Asia’s limited exposure to US subprime-related products, the existing of large regional savings, and the regional dynamic growth has provided some bumper to prevent the negative sides of the recent global financial crisis.

So far, at the time this paper is written, East Asia has proved to be more resilient than earlier feared, despite noticeable slower growth in most economies across the region. Initially, as pointed out by Keet (2009), from peak to trough, Asian exports dropped by over one third, average sovereign CDS spreads raised for more than 30% for five Asian economies and Emerging Asia stock prices tumbled for more than 60%. Numbers of countries, except China and Japan, experienced under pressure in their exchange rate, and on average contracted by about 6.2% from peak to trough in the current economic turmoil, little bit lower than the 8.3% GDP contraction during the Asian financial crisis.

However, thank to the relatively healthy state of East Asia financial systems prior to the financial crisis, the prompt fiscal and monetary stimuli that took by East Asian governments and central banks, and the rapid turnaround in their larger, less export-dependent economies. The East Asian economies are leading the recovery from the global turmoil. As for September 2009, the developing Asia economies’ was expected to grow by 3.9% in 2009, 0.5 percentage points higher than the previous projection of 3.4%. Similarly, the growth forecast for 2010 upgraded to 6.4% from 6.0% in March (ADB, 2009b).

### **3. Trend of Economic Integration in East Asia: Stylized Facts**

After reviewing the brief story of the two crises, this section will discuss the trend and evolution of some regional economic integration indicators in East Asia during the pre- and post those two crises periods. The discussion covers some regional economic indicators in certain areas, including trade integration (intra-regional trade share, intra-regional trade intensity), investment integration (intra-regional foreign direct investment share), and financial integration (bank lending differential, bond yields differential, and intra-regional portfolio share). At the same time, moreover, this section also reviews the development of regional cooperation and regional forum policy dialogues and coordination during those respective periods. In particular, this section will see how the economic crises have shaped the development of regional cooperation and regional forum policy dialogues in East Asia. This section can be considered also to set the stage for a more detail and rigorous analysis in the next section.

Increasing regional economic integration in East Asia was firstly the product of economic interaction or market-led integration, which then followed and supported by government policies and initiatives. The region's non-discriminatory and outward oriented growth strategy has succeed to make the region grown large and prosperous, yet at the same time, became more integrated through trade, financial flows, direct investment and other forms of economic and social exchange. Subsequently, in line with the rise of China and India as well as the region's growing weight in the global economy, the regional ties have also been strengthened by the new technological trends. Advances in information technology and declining transportations cost, as well as falling trade barriers has stimulated the development of production network or "production fragmentation", that span several Asian economies and involve wide-ranging exchanges of parts and component among them. These new production patterns have tied Asian economies closer together and boost the region's competitiveness (ADB, 2008).

Yet, the hardship of the economic crisis has also played role in enhancing regional economic integration in East Asia. The 1997/98 Asian financial crises caused a severe setback to many countries in the region, underlining the region's common interest and similar vulnerabilities, and giving a momentum for regional cooperation. The 1997/98 Asian financial crisis was an important catalyst for stimulating a greater regional cooperation and a rise of new initiatives. In particular, moreover, the crisis have encouraged the region to embark on difficult policy and institutional reforms to remedy the structural shortcomings that the crisis exposed and it also underpinned Asia's growing interdependence, the flaws in the global financial, as well as the benefits of Asian cooperation (ADB 2008). The crisis prompted the regional economies to undertook various cooperative initiatives for trade and finance, including free trade agreements (FTAs)—such as Japan-Singapore FTAs, ASEAN-China FTAs, the Chiang Mai Initiatives, The Economic Review and Policy Dialogue, and Asian Bond Market Initiatives (Kawai, 2007).

In recent years, similarly, the on-going global financial crisis has also become a wake-up call for resuming and further strengthening the regional economic integration in the region. In the monetary and financial sector, for example, the region economies implemented the CMI multilateralized as the explicit response to the on-going economic turmoil. In the real sector, meanwhile, South Korea and the European Union were expected to sign FTA in fall 2009. Moreover, the ASEAN-India FTA was endorsed by the ASEAN economic ministers in August 2009. Following the accomplishment of AFTA, furthermore, ASEAN has also launce an effort to create a unified market through the ASEAN Economic Community (AEC) and also began to consider informally the establishment of a custom union (Plummer, 2009).

### **3.1. Market Driven Integration**

The economic integration in East Asia has been largely market-driven led by increasing cross-border trade, FDI, and financial flows. In line with the multilateral and unilateral trade liberalization measures embarked by the region economies, trade in goods and services and FDI activities have grown remarkably in the last three decades. Deregulation of the financial system, opening of financial services to foreign institutions, and liberalization of capital account have stimulated a rapid growth in international portfolio investments and active commercial bank loans, as well as cross-border financial activities. The removals of various types of cross-border barriers and the geographical proximity of East Asian economies have formed natural economic connections among them.

As East Asian economies recovered considerably from the 1997/98 Asian financial crises, the region promptly undertook the opportunity to expand market-led integration and policy-induced cooperation. In the real sector, outward oriented economic polices, such as reducing trade barriers and forming free trade agreements, continued to boost the region's rapid growth in international trade. The private-sector-driven vertical integration of production networks across economies has also taken share to deeper trade integration, both at regional and global level. In the financial sector, the regional governments have also continued to promote cross-border financial transaction through further deregulation and liberalization in financial market and capital account.

#### ***Trade Integration***

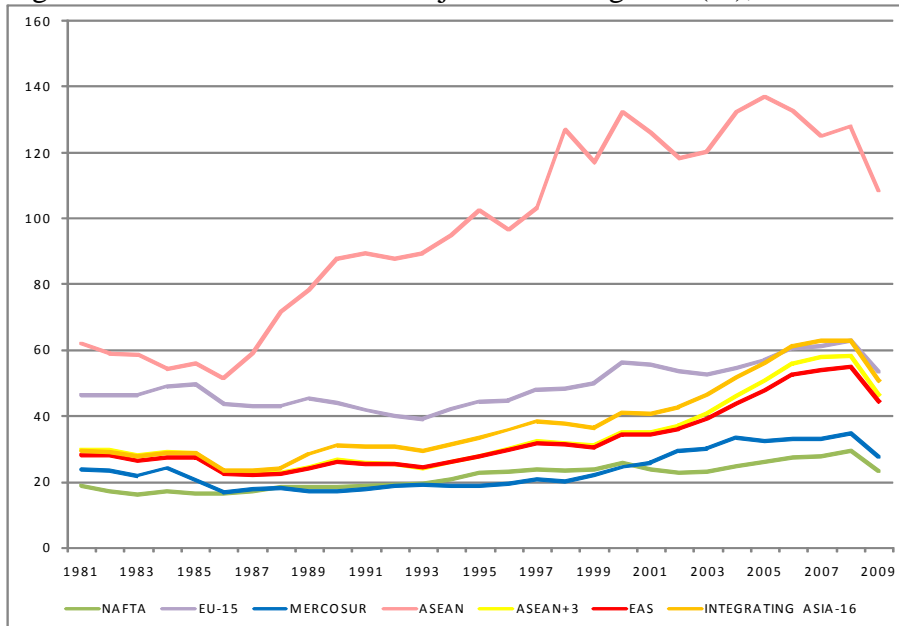
Arguably, the openness of East Asia economies to foreign trade and FDI has been a salient feature of the "East Asian Miracle". Rapid liberalization in the past decades has made East Asian economies more integrated in goods and services trade, both globally and regionally. Over time, as seen in figure 2, while the trade openness ratio—measured by the ratio of total trade in gross domestic product (GDP) — tends to increase for all major regions in the world, that of East Asian economies increased faster than other regions. During the last three decades, the trade to GDP ratio in East Asian economies increased markedly from 28.2% in 1981 to 54.9% in 2008, before tumbled to 44.4% in 2009 due to the on-going financial turmoil. This level is by far higher than NAFTA and MERCOSUR, and drove up to that of Europe as the most globally integrated region in

the world. At the same time, the share of East Asia trade in total world trade volume has grown more than double during the last 30 years, currently exceeding 25% of world trade volume.

Capannelly, Wha Lee, and Petri (2009) attributed this increasing trend of openness in East Asia with the adoption of the so called flying geese model, the creation of regional production networks through production and trade fragmentation, and the relative development of export to supply world market. Production networks is a term that is used to described the organization of production processes within a single firm in the production of a good, while the trade fragmentation refers to the cross-border flows of inputs related to these production networks.

Meanwhile, the flying geese model refers to the pattern of development in East Asian economies that move in formation as they followed similar paths and hinged on sequential. Following the Japanese success in the 1950s-60s, most of East Asian economies embarked on outward oriented development strategy. They initially specialized in simple, labor-intensive manufactures. As the more developed among them graduated to more sophisticated products, less advanced countries filled the gap that they left behind. Initially, they did not yield strong economic links within East Asia as most of them more focused on exporting to industrialized country market rather than selling to each other. Yet, recently their interdependence has been deepening as East Asian economies become grown bigger and richer to become important to each other and as their patterns of production more and more relies on networks that span several Asian economies and involve wide-ranging exchanges of parts and components among them (ADB, 2008).

Figure 2: Trade/GDP Ratio of Major World Regions<sup>3</sup> (%), 1981-2009

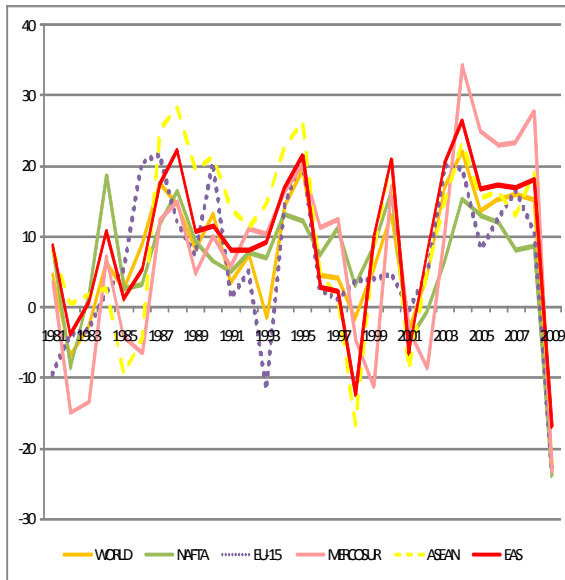


Source: International Monetary Fund (IMF), *Direction of Trade Statistics* and *World Economic Outlook* (June 2010)

As the world becoming more integrated, the growth of East Asia's and other regions' trade have followed the fairly similar pattern, especially after 2002. As demonstrated in figure 3a, while most of region experienced high trade growth rates in 1995, 2000, and 2004, trade in most of major of the world has also experienced a similar declining trend during the 1997/98 Asian crisis, the 2001 tech-crisis, and the 2008/09 global financial crisis. During these crises periods, in particular, while the growth of world trade tumbled by almost 2% in 1998, more than 3.5% in 2001, and over 22% in 2009, the growth of trade also dropped by 12.4%, 16.6%, and 16.9% for East Asia, and by 4.4%, 3.1%, and 23.3% for MERCOSUR. Likewise, NAFTA and EU-15 also experienced negative trade growth during the dot.com crisis and the recent global financial crisis, although both regions still experienced positive growth during the Asian crisis. NAFTA's trade growth declined by 5% in the 2001 and 24% in 2009, while EU-15's trade growth contracted by 0.1% and 23.6% during those two crises.

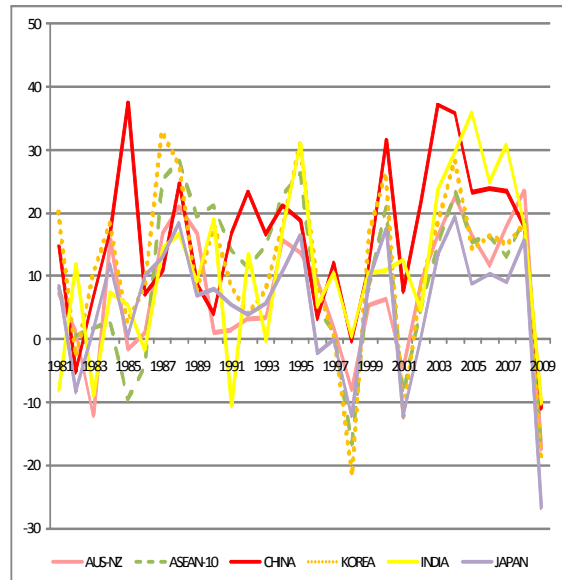
<sup>3</sup> The following definition of regional groups or trade blocks is used in this paper : (i) Association of Southeast Asian Nation (ASEAN) includes Brunei Darussalam, Cambodia, Lao People's Democratic Republic, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam; (ii) ASEAN+3 consist of ASEAN countries plus People's Republic of China, Japan, and Republic of Korea; (iii) East Asia Summit (EAS) includes ASEAN+3 countries plus Australia, India, and New Zealand; (iv) Mercado Comun del Sur (MERCOSUR) includes Argentina, Brazil, Paraguay, and Uruguay as founding members, Bolivia, Chile, Colombia, Ecuador, and Peru as associate members, and Venezuela, which has signed a membership agreement in 2006, but is currently waiting to become a full member, as its entry has yet to be ratified by Brazil and Paraguay; (v) North America Free Trade Agreement (NAFTA) includes Canada, Mexico and the United States; (vi) Integrating Asia-16 (IA-16) includes ASEAN+3 countries plus Hong Kong, China; India; and Taipei, China; (vii) European Union-15 (EU-15) consist of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

Figure 3a: Trade growth of major world regions (%), 1981-2009



Source: International Monetary Fund (IMF), *Direction of Trade Statistics* (June 2010)

Figure 3b: Trade growth of countries and countries group in East Asia (%), 1981-2009

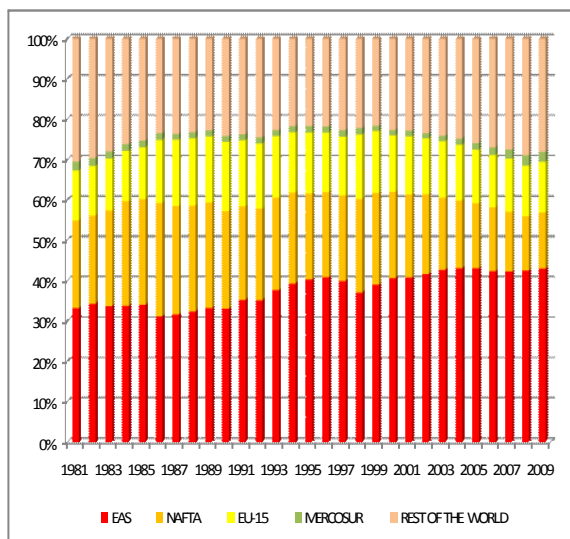


Source: International Monetary Fund (IMF), *Direction of Trade Statistics* (June 2010)

Within East Asia, figure 3b revealed that the trade growth of economies in the region also moved to a large extent in the same manner, especially after the 1997/98 Asian financial crisis, albeit in different degree. While most of countries in the region suffered trade drops during those three crises, ASEAN and Korea, as crisis affected countries, experienced the worst declined in the 1997/98 Asian financial crisis, and Japan was hit hardest during the 2001 “dot.com” crisis and the 2008/09 global financial crisis. For the later, it was because Japan’s export has been dominated by capital goods and high-end durable consumer goods, such as cars and electrical machinery, machine tools and their components. These products are heavily concentrated in the US and other developed country markets, and thus are directly affected to the dot.com crisis and the recent global economic downturn. China and India, meanwhile, were the least affected crisis countries in the regions.

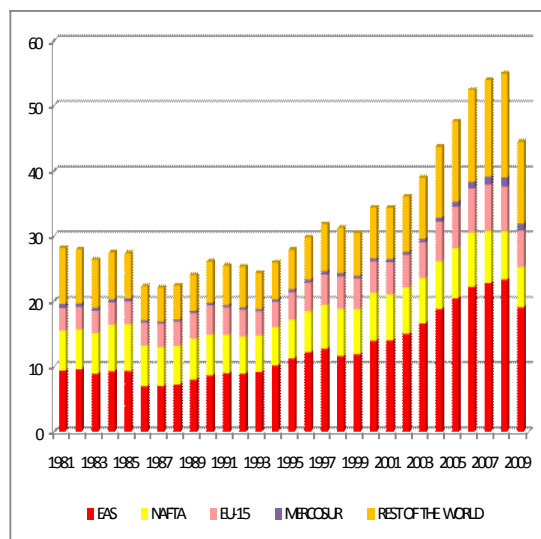
Over times, the region’s countries have been trading increasingly with each other. As seen in Figure 4a, the share of East Asia trade with economies within the region tended to increase in the last three decades, from 33.2% of its total trade in 1981 to 43% in 2009. At the same time, the share of trade with MERCOSUR member countries has increased somewhat, whereas that with the rest of the world, Europe and North America has considerably fallen recently. This figure seems imply that the intensification of East Asia’s trade with economies within the region is at the expense of East Asia’s extra-regional trade with other major regions in the world, especially Europe and North American countries.

Figure 4a: Trade of East Asia by Destination (%), 1981-2009



Source: International Monetary Fund (IMF), *Direction of Trade Statistics* (June 2010)

Figure 4b: Trade of East Asia as a share of GDP by destination (%), 1981-2009



Source: International Monetary Fund (IMF), *Direction of Trade Statistics* (June 2010) and *World Economic Outlook* (June 2010)

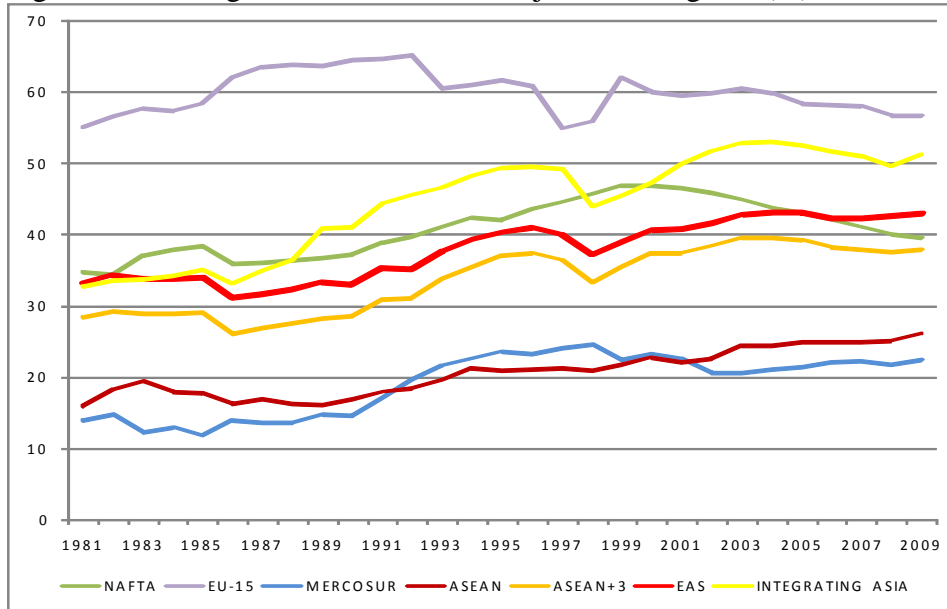
Nevertheless, the trade of Asian economies has actually also developed with the economies outside the region, not only in absolute terms, but also in relative to East Asia's GDP. As shown in figure 4b, the East Asia's trade with economies within the region rose from 9.3% of its GDP in 1981 to 19% in 2009, while its trade with the North American countries slightly increased from 6.1% to 6.2% in the same respective period. At the same time, the share of East Asia's trade also increased from 3.5% in 1981 to 5.6% in 2009 for Europe, and from 8.6% in 1981 to more than 12.5% in 2008 with the rest of the world that is countries outside EAS, EU-15, NAFTA and MERCOSUR. This means that although East Asia's trade with their neighboring countries in the region increased, it has not been diverted from other regions in the world.

In addition to its outward oriented development strategy explained above, the increasing East Asia's trade with both economies within the region and outside the region also associated with the key nature of regional economic integration in East Asia which has been characterized as open regionalism. Kawai (2004) argued that the region has avoided discriminatory trade practices as the economies in the region mainly pursued a multilateral liberalization framework under GATT/World Trade Organization (WTO) and through Asia-Pacific Economic Cooperation (APEC). Several GATT liberalization rounds have reduced tariffs and non-tariff barriers to trade on a sustained basis, while the APEC process succeed in persuading China—as well as China Taipei—to follow liberalization in trade and FDI outside of the WTO framework.

As a result of outward-oriented development strategy, the growth in production network, as well as the emerging of China and India, the degree of trade integration in East Asia has deepened. Over the last three decades, as seen in figure 5, the share of East Asia's intra-regional trade in its total trade has increased from 33.2% in 1981 to 43% in 2009. Although still lower than the peak figure of 65.2% for EU-15 achieved in 1992, this share

was higher than the peak figure of 46.8% for the NAFTA, achieved in 2000. This share more over, even higher if we extent the definition of East Asia to include Hong Kong, China, and Taipei, China into East Asia (Integrating Asia-16). The increasing share of intra-regional trade for over the last three decades may also indicate the possible trade creation for East Asia region.

Figure 5: Intra-regional trade share of major world regions (%), 1981-2009



Source: International Monetary Fund (IMF), *Direction of Trade Statistics* (June 2010)

As for the two crises periods, in particular, the East Asia's intra-regional trade has moved in a different manner during the two crises. The share of East Asia's intra-regional trade in its total trade has tumbled from 40% in 1997 to 37.6% in 1998, after continuously increased in the previous decade. Afterward, that share has continued to increase and reached its highest level at 43% in 2004, before gradually deteriorating again for the next three consecutive years. Unlike in the 1997/98 Asian crisis, then, in the recent global financial crisis the East Asia's intra-regional trade increased slightly from 42.2% in 2007 to 42.5% in 2008, and then to 43% in 2009.

This dissimilarity was caused by the different natures and impacts of the two crises. As explained in the previous section, the 1997/98 Asian financial crisis, was a currency crisis started in Thailand then rapidly spread to other East Asian countries and developed into a total financial crisis in the region, precipitated by reversal of foreign capital inflows. This crisis was partly homegrown and the effects were initially occurred in the form of sharp currency depreciation of crisis affected countries, before affecting the other economic sectors in the region. In the recent global financial crisis, meanwhile, trade has been the dominant channel through which the financial crisis has been transmitted from the developed countries, especially US and Europe, to East Asian economies, although the downturn was financial in its origin. The crisis affected East Asian economies through the collapse of its external demand, when the financial crisis spread to the real economies

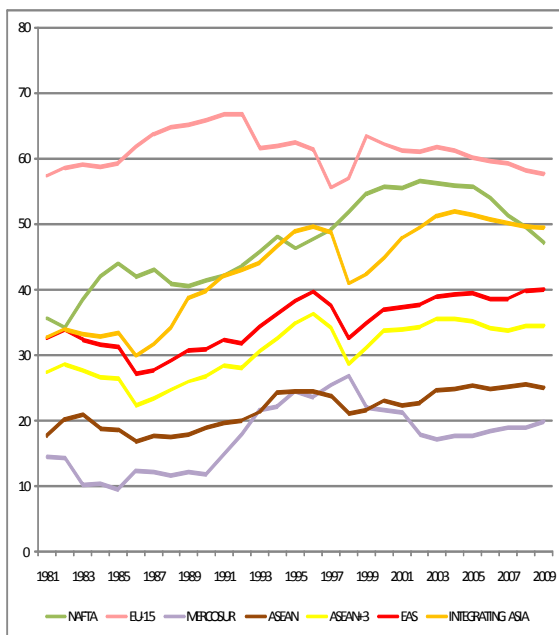
of developed world. From the perspective of East Asian economies, the recent global financial crisis was a trade crisis rather than a financial crisis, as East Asian financial systems did not suffer severe disruptions.

During the 1997/98 Asian financial crisis, although the import volumes temporary declined sharply with the fall in domestic activities in the crisis affected countries, the export volume actually rose as world demand outside the region grew. As quoted from Moreno, Pasadilla, Remolana (1998) above, after the second half of 1997, the value of the most affected East Asian currencies has plunged by about 33%-75% against to US dollar. In 1998, at the same time, while East Asia's export to its neighboring countries in the region decline by 18.5%, its export to North American countries and Europe increased by 4.8% and 8.8%, respectively. Moreover, its import declined by 18% from the countries in the region, 14.6% from NAFTA and 18% from EU-15. Thus, as East Asia export to and import from economies within the region decline and the export to other countries outside the region increased, the share of East Asia trade in its total trade would be automatically declined.

On contrary with the 1997/98 Asian financial crisis, in the recent global financial crisis, both East Asia intra and extra regional share has declined, with the later was larger than the former. In 2009, for example, while East Asia's trade with NAFTA, EU-15, MERCOSUR, and the rest of the world tumbled by 13.8%, 16.5%, 22.3%, and 24.6%, respectively, its intra-regional trade decline by only 13.5% (17% in its export and 10% in its import). As a result, unlike the 1997/98 Asian financial crisis, this share somewhat increased during the 2008/09. This implies that the increase in East Asia's intra-regional trade share in recent global financial crisis was not caused by the increase in intra-regional export and import among East Asian economies, yet it was because East Asia intra-regional trade declined lower than that of its extra-regional trade.

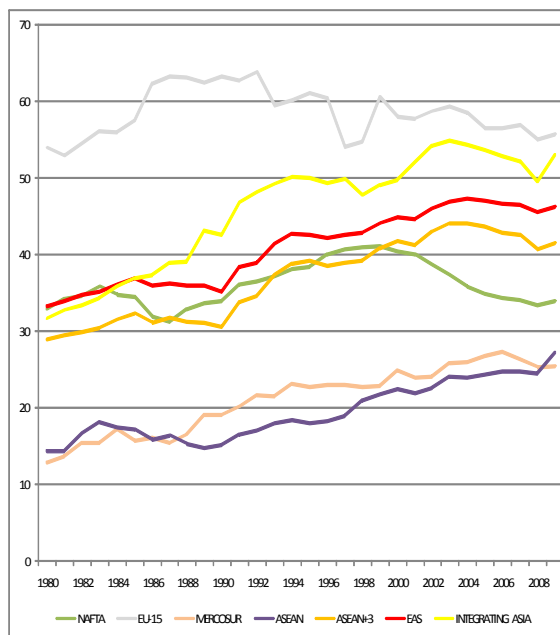
The recent global financial crisis, moreover, has also re-exposed East Asia's relative dependence to the markets outside the region, as reflected in a notable asymmetry in East Asia's intra-regional trade share. As shown in figure 6a and 6b, although the intra-regional trade in East Asia has grown remarkably, this growth has actually come largely from an increasing in intra-regional import rather than intra-regional export. For the past three decades, the intra-regional import rose from 33.9% in 1981 to 46.1% in 2009, while the intra-regional export increased from 32.4% in 1981 to 40% in 2009. This figure indicated that East Asia's remains heavily dependence on markets outside the region, especially US and Europe, although that dependence has been somewhat gradually declined recently.

Figure 6a: Intra-regional export share of major world regions (%), 1981-2009



Source: International Monetary Fund (IMF), *Direction of Trade Statistics* (June 2010)

Figure 6b: Intra-regional import share of major world regions (%), 1981-2009



Source: International Monetary Fund (IMF), *Direction of Trade Statistics* (June 2010)

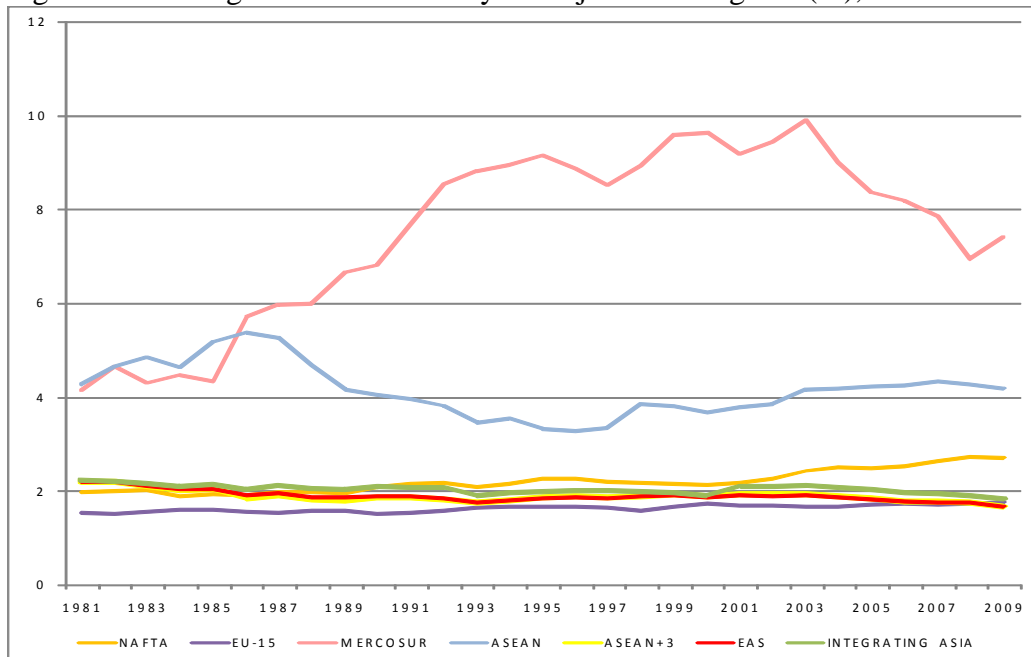
According to Athukorala and Yamshita (2008) and Athukorala (2009), this asymmetry in intra-regional trade in East Asia represented the distinctive features of the Japan and China involvement in regional production networks in the region. Since the late 1980s, Japan's relations in manufacturing trade with other countries in the region has been largely in the form of utilizing the region as an assembly based for fulfilling demand in the region as well as for exporting to the rest of the world. This asymmetry, later on, was extended since the early 1990s when China emerged as a leading assembly centre within regional production network, in which economies around the region ship parts and components to China, which then assembles them into final goods and export them to the US and other developed economies.

The structure of intra-regional trade in East Asia, in fact, has been dominated by trade in parts and components. The ADB (2009a) recorded that since the early 1990s the share of parts and components in developing Asia's manufacturing trade has increased continuously from 16% in 1992 to 25% in 2006 for export, and from 22% to 36% for imports in the same period. Overall, as reported by ADB (2008), of the Asia's intra-regional export in 2006, 48.2% exports are directly shipped to Europe and North America, while 67.5% ultimately end up there, when the parts and components contents of exports is fully take into account. In addition to asymmetry in intra-regional trade share in East Asia, this fact also explained why the recent global financial crisis has not only reduced East Asia's trade with economies outside the region but also with economies within the region, although the recent downturn originated outside the region.

In addition to intra-regional trade share, the degree of regional economic integration in East Asia can also be measured by intra-regional trade intensity index, a more demanding and sophisticated measure of regional trade integration indicator. Unlike intra-regional trade share, which is a more straightforward measure of interdependence as it shows the relative importance of internal (intra-regional) versus external trade dependence, the intensity indicator does not rise just because the region's weight is increasing in the world economy; it rises only if the share of a region's trade with itself rises more rapidly than its share of world markets. In short, the intra-regional trade intensity shows the region's bias for trading within itself, that is, among partners located within the region.

Figure 7 shows the evolution of intra-regional trade intensity of the world's major regions for the period of 1981 to 2009. As seen in that figure, the East Asia's intra-regional trade intensity was initially at relatively high level in the early 1980, yet then declining continuously overtimes. The intra-regional trade intensity in East Asia initially stood at 2.2% in 1981, higher than that of NAFTA and EU-15, yet then it declined persistently with a rapid pace to 1.92% in 1986, as the region's share of total world rose and it traded more intensively with non-East Asian economies than among themselves. Afterward, although the declining trend still continued, the speed of decline was slower than before. After the mid-1980s, the East Asia's intra-regional trade intensity decreased from 1.94% in 1987 to 1.77% in 1993, before continuously climbed up again to 1.9% in the late 1990s and early 2000s. Recently, the intensity indicator gradually declined again from 1.90% in 2003 to 1.67% in 2009.

Figure 7: Intra-regional trade intensity of major world regions (%), 1980-2009



Source: International Monetary Fund (IMF), *Direction of Trade Statistics* (June 2010)

Capannelli, Wha Lee, and Petri (2009) argued that the slower speed of declined in the East Asia's trade intensity was caused by the combination of the increase in East Asia share in total world trade and the growth in fragmented trade and production, and the

creation of regional production networks. Moreover, they explained that the trend in East Asia is different with what has occurred in the EU and NAFTA. In these regions, their bias for regional trade is increasing at the same time that their share in world trade is decline. Unlike East Asia, these regions experienced increasing intra-regional trade intensity. During 1981 to 2009, the intra-regional trade intensity increased from 2.0% in 1981 to 2.7% in 2009 for NAFTA and from 1.53% in 1980 to 1.77% in 2009 for EU-15.

As for the crises periods, like intra-regional trade share, the intensity indicator in East Asia has also moved in a different manner when those crises occurred. While the trade intensity indicator tended to increased during the Asian financial crisis, from 1.84% in 1997 to 1.89% in 1998, this indicator dropped from 1.75% in 2008 to 1.67% in 2009, following the previous declining trend started since mid-2000s. The increase of this indicator during the Asian crisis was predominantly caused by a larger decline in the East Asia's weight of total world economy and trade, rather than by an increasing in intra-regional trade. In fact, as mentioned above, the East Asia trade, both export and import, with economies within the region declined significantly at that time.

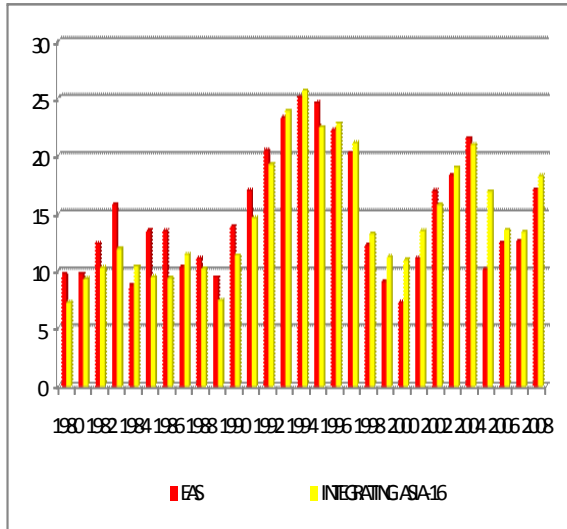
In the recent global financial crisis, on contrary, the increasing of East Asia's weight in total economy and world trade, together with the declining in the region's intra-regional export and import, has increased the denominator and decreased the dominator of the intensity indicator's forming component, which in turn reducing the current level of East Asia's trade intensity. The different nature and impacts of those two crises, together with the region's high dependency on external demand, and the development of trade fragmentation and regional production network in the region, has jointly contributed to this different result.

### ***Investment Integration***

In line with the increasing trade among East Asian economies, the past decades also witnessed an increasing trend of FDI inflows to the region, despite a minor dropped during the 1997/98 Asian financial crisis. The total FDI flows to East Asia increased dramatically from an average annual level of US\$ 6.6 billion during 1980-85, to US\$ 290.6 billion in 2008. During the Asian crisis, the total FDI flows to East Asia decreased from US\$ 98.7 billion in 1997 to US\$86.5 billion in 1998, before resumed at US\$ 98.1 in 1999. Accordingly, as demonstrated in figure 8a, the East Asia's share in total global FDI inflow rose sharply from 9.7% in 1980 to 17.1% in 2008.

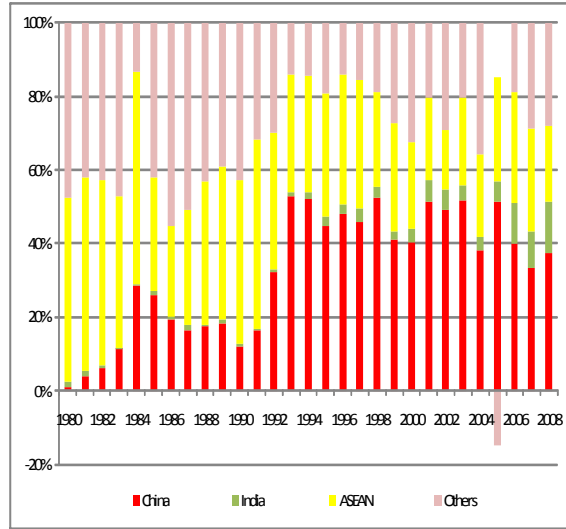
China has been the largest contributor to the region's increasing share in global FDI inflows. Figure 8b shows that China has been by far the largest inward FDI recipient country in East Asia. Following the initiation of its "open-door" policy in 1978, since the mid-1980s the total FDI flows to China has increased dramatically and achieved the unprecedented growth in the early 1990s. Although the FDI flows to china experienced slowed growth in the late 1990s and early 2000, the FDI inflows to China resumed since 2002, with the expectation of further deregulation and opening up following its accession to the WTO.

Figure 8a: Share of world FDI inflows to East Asian economies (%), 1980-2008



Source: UNCTAD various years, FDI Statistics online and *World Investment Report, 2009* (June, 2010)

Figure 8b: Share of total FDI inflows by groups of countries in East Asia, 1980-2008



Source: UNCTAD various years, FDI Statistics online and *World Investment Report, 2009* (June, 2010)

Over the last three decades, the total FDI flows to China rose significantly from US\$ 57 million in 1980s to US\$ 108 billion in 2008, except during the initial years after the 1998 financial crisis. Similarly, the share of China in total FDI flows to East Asia also increased from 1.1% in 1980 to an average annual level of 50% during 1984-2005, before gradually decline in a row for the past three years. By 2008, that of China stood at 37.2%. Along with China, recently, India has also emerged as another FDI receiver country in the region. India's share of FDI inflow to East Asia increased from below 1% in 1980s to annual level of 14% in 2008. For this, Athukorala (2008) argued that the domestic investment climate (demand-side factors in the investment) has been the primary determinant factors for investment flows to India, rather than the comparative advantage in international production.

The increase in capital flows to East Asia has been associated multinational companies (MNCs) activities in the region. Kawai (2004) explained that the FDI flows to the East Asian economies have been driven largely by the affiliated multinational corporations (MNCs) coming from industrial countries, such as United States, Europe, and Japan. The FDI flows have created intra-industry trade within the region and were partly instrumental to more efficient division of labor and deeper economic integration. MNCs have developed regional production networks and supply chains by placing different sub-processes in different countries according to their comparative advantage—relative factor proportions and technological capabilities. This strategy has created vertical intra-industry trade in industrial materials, parts, components, semi-finished and finished products within East Asia, turning East Asia an autonomous production base for the world and strengthening regional economic integration in the region. In short, he argued that the FDI-trade nexus has intensified the regional economic integration in East Asia.

The attractiveness of East Asian economies as production and investment platforms has been enhanced by various developments and measures that reduce the barriers and costs of trade. On the demand side is the progressive reduction of trade barriers through unilateral liberalization and successive rounds of trade liberalization under the WTO and General Agreement on Tariffs and Trade. On the supply side, technological advances have lowered transportation costs and there have been massive investments in transportation and telecommunications infrastructure to improve spatial connectivity. Regional cooperation efforts such as Greater Mekong Sub-region focused on investments that improve physical connectivity between neighboring countries and opened new opportunities for trade and also helped deepen integration within the region.

The attractiveness of East Asia as a host to foreign investors is also determined by the changing in its comparative advantage in international production. The MNCs activities to start building regional production bases centering on East Asia in the region have been accelerated since the mid-1980, following the Plaza Accord of 1985, which caused Japan's loss in its comparative advantages in labor manufactures. A sharp appreciation of the yen has forced Japanese MNCs to scale down their domestic production activities and relocated to emerging East Asia—initially in NICs and later in middle-income ASEAN countries.

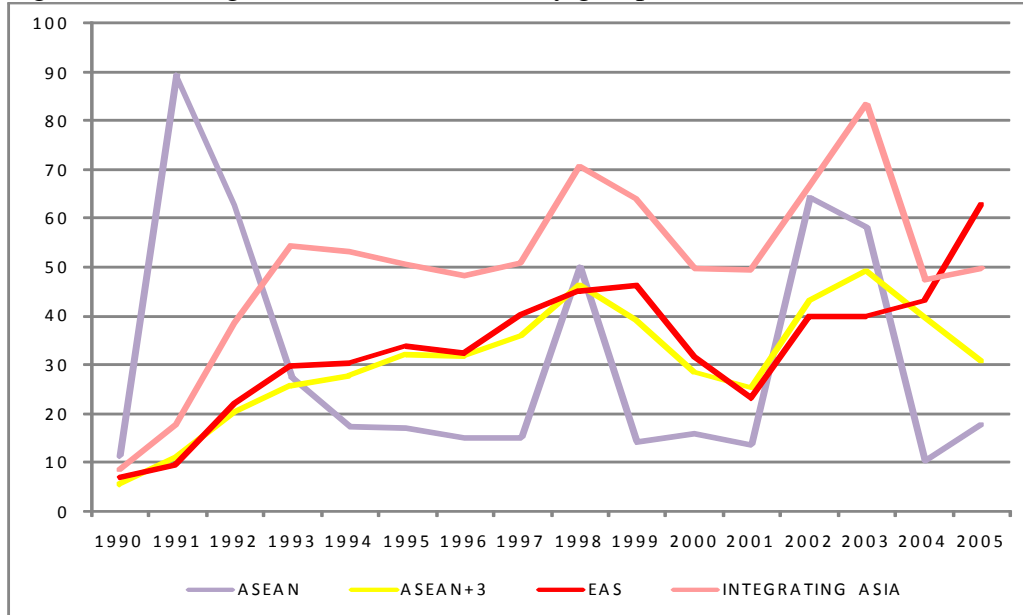
After gaining sharp increase in export of labor manufactures in mid-1980s, by the late 1980s, along with Japanese MNCs, firms from the NICs (Hong Kong, China; Singapore; Republic of Korea; and Taipei, China) have been investing in ASEAN countries and China, as these countries were losing their competitive edge in labor-intensive activities as a result of rising labor cost, and the attendant exchange rate movements and technological change. More recently, as a result of its dramatic economic transformation over the past two decades, China and advanced ASEAN countries (like Malaysia and Thailand) are also becoming a major investor, predominantly in the other developing countries in the region, including Cambodia, Lao, and Vietnam.

As more and more investors coming from the countries within region invested their money to the region's economies, together with trade, foreign direct investment have also been instrumental in enhancing economic integration in East Asia. As described in figure 8, the share of East Asia FDI flows has increased remarkably over the last two decades, despite a temporary decline during the "dot.com" crisis in 2000-2001. The share of intra-regional FDI flows in East Asia rose from 7% in 1990 to 46.3% in 1999, before tumbled to 31.7% and 23.1% in 2000 and 2001, respectively. Afterward, it increased continuously and stood at 62.8% in 2005. These facts also indicated that the regional economic integration in East Asia has also been increased through investment. The East Asia's FDI regional share coefficients, in general, seem to rise during the last two decades, although the data are variable and the period is too short to allow strong conclusion.

As for the crisis periods, in contrast with intra-regional trade, instead of declining, the share of FDI flows from countries within East Asia to the total region's inward FDI was relatively stable during the 1997/98 Asian financial crisis. At that time, the intra-regional FDI share increased from 40.2% in 1997 to 45.1% in 1998 and then slightly increased to

46.3% in 1999, before tumbling down during the tech crisis to 31.6% in 2000 and 23.1% in 2001. Noteworthy, however, figure 9 shows that the increased in the East Asia's intra-regional FDI share was caused by the lesser decline in the total East Asia's inward FDI from itself, compare to the decline in total investments that invested by all investors in the region. The total East Asia's intra-regional FDI declined by 17.4%, from US\$ 21.1 billion in 1997 to US\$ 17.4 billion 1998, while the total outward FDI from the region declined larger by 26.3%, from US\$ 52.5 billion to US\$ 38.7 billion in the same respective periods.

Figure 9: Intra-regional FDI share in county groups in East Asia (%), 1990-2005



Source: UNCTAD various years, FDI statistics online and *World Investment Report*, 2009

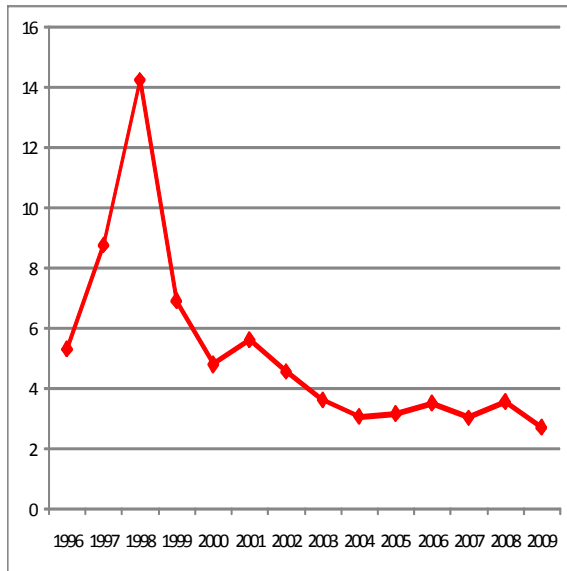
### ***Financial Integration***

Like in trade and investment areas, deeper regional integration also occurred in financial areas. Kawai (2007) argued that the deregulation of domestic financial systems, opening of financial services, and progressive relaxation of capital and exchange controls has stimulated rapid integration in East Asia financial markets. The region's financial markets linkages have been considerably amplified by foreign operations of commercial banks and portfolio of institutional investors originated from industrialized countries. In addition, emerging East Asia's commercial banks has also extended their commercial activities in other countries within the region.

The increasing financial integration implies greater co-movement of prices in the region and is typically accompanied by an increase in the share of financial assets traded within the region and that held by regional participants. The former is the measurement of integration using price indicators, while the later is the measurement of integration using quantity indicators. For price indicators, the degree of financial integration in East Asia, for example, can be seen through the rate of cross country money market differential.

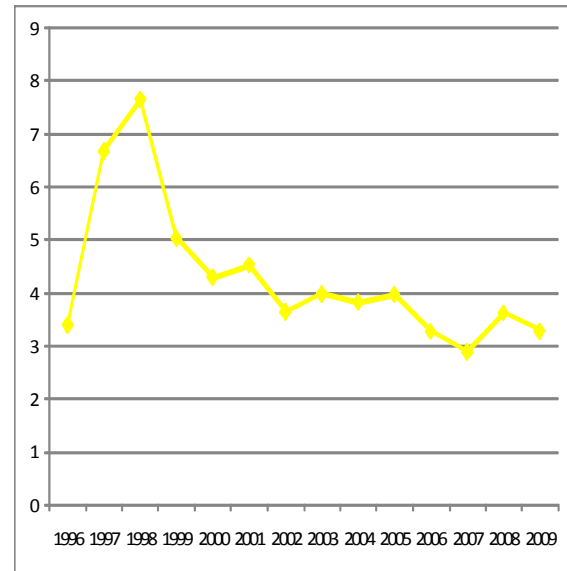
Quantitatively, meanwhile, the state of financial integration in East Asia can be analyzed using the share of intra-regional cross-border portfolio holdings of assets and liabilities.

Figure 10a: Inter-bank rate differential (%), 1996-2009



Source: Bloomberg (June, 2010)

Figure 10b: Bonds yields differential (%), 1996-2009



Source: Bloomberg (June, 2010)

The level of cross-market differentials in interest rates and bond markets yields, for examples, have been declining in recent years, despite a mark increased during the 1997/98 Asian financial crisis. As for the cross-market differences of money market interest rates, figure 9a shows that after surging to over 14.2% at the height of the crisis, the average absolute values of uncovered interest rate differentials (3-month interbank lending rates) have declined to 3.0% in 2007. During the 2008/09 global financial crisis, this pair-wise measures of convergence in money market has also temporary to increase to 3.6 % in 2008, before falling down to 2.7%. In bond market, similarly, the absolute distance of the beta coefficient from unity has also declined substantially, although the decline has been less pronounced than the 3-month interbank lending rates. Before the current global financial crisis, as seen in figure 9b, the average absolute values of 10-year bond yields in East Asian economies declined to its lowest level at 2.9%, following a high increased from 3.4% in 1996 to 7.6% in 1998.

In the quantitative term, the regional financial integration in East Asia has also been increasing, although the degree is not particularly high, especially when Japan is included in the analysis. Table 1a and 1b shows total value of intra-regional portfolio investment in East Asia and the intra-regional port-folio shares in some major regions in the world. The share of financial assets (liabilities) held intra-regionally by East Asian economies increased to 8.7% (9.5%) in 2008, compared to 5.7% (8.4%) in 2001. Yet, this figure is still low compared to those of EU-15 and NAFTA. In 2008, the ratio for intra-EU assets (liabilities) holdings was 64.5% (62.9%), and that of NAFTA was 13.7% (9.3%). In

addition, this figure also indicated that the regional financial integration in East Asia has also been lower by far compared with trade and FDI integration explained above.

Table 1a: Intra-regional portfolio investment (in billion US\$), 2001-2008

Reporting region/country	Assets invested in				Total assets	Liabilities received from				Total liabilities
	EAS	Japan	EAS-15	US		EAS	Japan	EAS-15	US	
<b>2001</b>										
EAS	86.2	16.1	55.1	564.3	1,500.8	81.8	35.2	46.6	334.4	974.4
Share (%)	5.7	1.1	3.7	37.6	100.0	8.4	3.6	4.8	34.3	100.0
Japan	36.8	n.a	36.8	490.2	1,289.8	16.1	n.a	16.1	197.8	542.3
Share (%)	2.9	n.a	2.9	38.0	100.0	3.0	n.a	3.0	36.5	100.0
EAS-15 (EAS less Japan)	49.4	16.2	58.0	74.1	211.0	65.7	35.2	30.6	136.6	432.2
Share (%)	23.4	7.7	27.5	35.1	100.0	15.2	8.1	7.1	31.6	100.0
<b>2008</b>										
EAS	267.8	31.1	179.7	970.9	3,080.0	239.4	103.5	135.9	703.1	2,523.0
Share (%)	8.7	1.0	5.8	31.5	100.0	9.5	4.1	5.4	27.9	100.0
Japan	108.5	n.a	108.5	762.4	2,376.6	31.1	n.a	31.1	389.1	1,100.8
Share (%)	4.6	n.a	4.6	32.1	100.0	2.8	n.a	2.8	35.3	100.0
EAS-15 (EAS less Japan)	159.3	32.2	269.0	208.5	703.9	208.3	103.5	104.8	314.0	1,422.7
Share (%)	22.6	4.6	38.2	29.6	100.0	14.6	7.3	7.4	22.1	100.0

Source: International Monetary Fund (IMF), *Coordinated Portfolio Investment Survey* (June 2010)

Table 1b: Intra-regional Share of portfolio investment (%), 1997-2008

	1997	2001	2002	2003	2004	2005	2006	2007	2008	
<b>ASSETS</b>										
ASEAN	27.4	11.0	10.1	11.4	13.9	13.5	10.8	12.1	7.6	
ASEAN+3	3.7	3.1	2.5	2.5	2.9	3.3	3.7	5.5	4.5	
EAS	7.8	5.7	5.3	5.7	6.1	6.9	7.7	10.2	8.7	
Integrated Asia-16	5.1	5.6	4.9	5.6	6.1	7.3	9.5	13.3	10.7	
IA-15 (IA-Japan)	39.3	15.0	14.0	16.7	17.8	20.5	24.3	29.8	26.8	
MERCOSUR	1.8	5.6	4.2	5.5	4.8	5.8	4.5	5.7	8.9	
EU-15	49.2	60.0	62.6	63.8	64.1	62.2	62.0	61.8	64.5	
NAFTA	17.5	16.2	17.1	15.8	15.0	15.1	14.0	13.7	15.0	
<b>LIABILITIES</b>										
ASEAN	7.5	7.4	7.3	7.2	8.6	8.6	6.6	7.4	5.2	
ASEAN+3	6.1	5.1	4.5	3.8	4.0	3.6	3.7	5.0	5.6	
EAS	11.3	8.4	8.4	7.5	7.4	6.8	7.1	8.8	9.5	
Integrated Asia-16	7.3	8.2	8.1	7.4	7.2	6.7	7.0	9.1	10.2	
IA-15 (IA-Japan)	5.9	9.1	10.5	10.3	10.4	9.9	9.5	11.0	11.9	
MERCOSUR	0.3	1.1	1.1	1.2	1.1	1.3	1.5	1.8	3.8	
EU-15	43.6	56.2	59.3	60.5	62.0	61.9	62.0	61.8	62.9	
NAFTA	15.7	10.4	10.0	10.5	10.2	11.3	11.3	11.8	9.3	

Source: International Monetary Fund (IMF), *Coordinated Portfolio Investment Survey* (June 2010)

Kawai (2007) proposed two important reasons for the limited degree of financial integration in East Asia. First, excluded Japan, Singapore, and Hong Kong, China, many East Asian countries still enforced considerable capital and exchange control other restrictions, which hampered free flows of financial capital. Particularly, China and low-income ASEAN countries still imposed heavy controls and regulations. Second, many domestic financial systems in East Asian emerging market economies are still immature and not deep yet, and thus not able to catch the attentions of regional investors. Most of investors from East Asian economies still prefer to put their international portfolios in North America and Europe, rather than in East Asia.

As for the crisis periods, interestingly, the share of intra-regional portfolio investment flows in East Asia tended to decline during the crisis (the recent global financial crisis), indicating a declining degree of regional financial integration in East Asia. As seen in table 1b, the ratio of intra-East Asia assets holdings decelerated from 19.0% in 2007 to 8.7% in 2008, while that of liabilities increased from 8.8% to 9.5%. Noteworthy, however, the increasing of the ratio of intra-East Asia liabilities holding was only occurred when Japan is included. Apart from Japan, the East Asia's (EAS-Japan) share of intra-portfolio liabilities was relatively stagnant at 7.4% in 2007 and 2008.

### **3.2. Policy Driven Integration**

With the progress of market-driven regional economic integration, the regional intergovernmental cooperation efforts have also significantly intensified. The form of this cooperation has varied, ranging from formal agreements designed to lead the integration process, to informal measures to manage the consequence of integration. These forums range from independent regional organizations such as the Executive meetings of East Asia Pacific Central Banks, to those conducted in the framework of regional organization such as ASEAN, ASEAN+3, ASEAN-Europe meeting (ASEM), and Asia-Pacific Economic Cooperation (APEC).

This section will discuss and review the existing various cooperative initiatives for trade and finance, including free trade agreements (FTAs), the Chiang Mai Initiative, the Economic Review and Policy Dialogue and the Asian Bond Market Initiative. This section will be divided into two parts: regional free trade areas (FTAs) and regional policy forums.

#### ***Free Trade Agreements***

Initially, the East Asian governments have not been particularly active in supporting regional cooperation initiatives in trade and investment, although the market integration, as explained above, has been experienced a rapid progress. Unlike the situation in Africa, the Americas, and Western Europe, there had no FTAs in East Asia before 1992. The only notable exception was the ASEAN Free Trade Area (AFTA), established in 1992. Capannelli and Filippini (2009) explained that this condition occurred due to the fact that they had made considerable progress through unilateral liberalization efforts or through

multilateral negotiations under the General Agreement on Trade and Tariff (GATT)/ World Trade Organization (WTO) framework. In addition, they also revealed since the main market force forming production networks together through out Asia was dominated by the Japanese *keiretsu* and overseas Chinese, the need for institutional arrangement is very low due to the close coordination between business and government, especially in Japan. Furthermore, the need for additional regional institutional set up was also less as the achievement to accomplish the Kennedy, Tokyo, and Uruguay Rounds of GATT has already been able to facilitate trade and deepened integration at the global level.

In the last few years, however, the governments of East Asian economies has significantly shifted its long-standing trade policy of pursuing trade liberalization through only the unilateral and multilateral liberalization approach in favor of bilateral and plurilateral free trade and investments agreements. The regional's governments have recently embraced a substantial shifted to a three-track approach based on global (WTO-based) and trans-regional (APEC-based), regional (ASEAN+3) or ASEAN+6), and bilateral liberalization). As a result, despite being the latecomer in the move toward FTAs compared with the Americas, Europe, and Africa, the region is now become the vanguard of World FTA activity, as many governments in the region have entered bilateral and plurilateral trade agreements. Table 2 provides data from the ADB FTA Database on the number of concluded FTAs in East Asia between 1976 and 2010 (as January 2010).

Table 2: Cumulative FTA in Asia by Status, 1975-2010

YEAR	UNDER NEGOTIATION			CONCLUDED		TOTAL
	Proposed	Framework Agreement Signed/Under Negotiation	Under Negotiation	Signed	In Effect	
1975	0	0	0	1	0	1
1976	0	0	0	0	1	1
1980	0	0	0	1	1	2
1981	0	0	0	0	2	2
1982	0	0	0	1	2	3
1983	0	0	0	1	3	4
1989	1	0	0	1	3	5
1991	1	0	0	2	5	8
1992	1	0	0	6	5	12
1993	1	0	0	5	9	15
1994	1	0	0	9	11	21
1995	1	0	0	16	14	31
1996	1	0	0	19	19	39
1997	2	0	0	21	20	43
1998	2	0	0	20	23	45
1999	4	0	1	20	24	49
2000	3	0	6	20	25	54
2001	2	0	8	19	28	57
2002	8	2	8	20	31	69
2003	18	4	10	27	35	94
2004	33	14	16	29	42	134
2005	46	18	29	29	50	172
2006	52	18	37	25	63	195
2007	49	18	42	28	69	206
2008	46	16	42	27	79	210
2009	49	16	44	27	85	221
2010	49	16	42	26	88	221

Source: Asia Regional Integration Center, Asian Development Bank (ARIC, ADB)

Over the last two decades, the region witnessed an unprecedented increase in the total FTA activities. As a major regional hub linking ASEAN members with the region's larger economies, ASEAN have enacted FTAs with China, Japan and Korea and recently completed negotiations on bilateral agreements with India and Australia and New Zealand, it is also considering negotiating an FTA with the EU. Japan has rapidly implemented bilateral economic partnerships agreements (EPAs) with nine countries<sup>4</sup>, and an agreement with ASEAN. Japan is also negotiating agreements with Australia, India and Korea. China implemented an FTA on goods with ASEAN and is now negotiating agreements on services and investment. China has also created bilateral FTA with Chile and Pakistan, and is a member of the Asia Pacific Trade Agreement (APTA). China also completed FTAs with Singapore and New Zealand in 2008.

Within the region, moreover, Korea has agreements with members of APTA and ASEAN, and Singapore, while the country also engaged extra-regional cooperation with Chile and the European Free Trade Area (EFTA) and signed an agreement with the US in June 2007. In addition, some ASEAN member countries, such as Singapore and Thailand are also actively pursuing bilateral FTA. Singapore is a founding member of the ASEAN Free Trade Area (AFTA) and has concluded or implemented agreements with China, India, Japan and Korea, as well as economies outside the region, including the US, while Thailand has also entered into agreements with China, India, Japan, and Australia and New Zealand. Amid this bandwagon effect, other East Asia economies: Australia, New Zealand and India have also joint in. On contrary, however, the region's poorer economies—Cambodia, Lao PDR, Viet Nam, Philippines, and Indonesia—have tended to rely on ASEAN for concluding FTAs with the region's larger economies, reflecting their weak institutional capacity, lack of resources, and limited leverage to undertake FTA negotiation (Kawai and Wignaraja, 2009)

There have been various factors that have been proposed by some East Asian scholars, such as: Kawai (2004), Urata (2005), Kawai and Wignaraja (2009), and Chia (2010) to explain the rapid expansion of FTAs in the region. While there are some specific factors that may explain the motives of FTA for individual countries, following factors are some common factors experienced by many countries in the region. These factors are: (i) the deepening of market-driven economic integration; (ii) the progress of regional economic integration in Europe and North America; (iii) the slow progress in Doha Round negotiations and the APEC liberalization; (iv) the *domino effect*: the economic rivalry between China and Japan led the two countries embrace FTA with NICs, ASEAN and the individual ASEAN countries, while at the same time these other countries also rushed into FTAs for fear of being left out of FTA markets; (v) a means to promote domestic reforms; (vi) the 1997/98 Asian financial crisis.

For the last factor, in particular, Kawai (2004) and Kawai and Wignaraja (2009) argued that the Asian crisis has taught an important lesson to the region on the needs of the strengthened economic cooperation in order to sustain economic growth, resilience and stability. The world-wide initiatives to enhance the international economic system have been disappointing, while the national works to improve individual economic

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<sup>4</sup> Brunei Darussalam, Chile, Indonesia, Malaysia, Mexico, Philippines, Singapore, Thailand, and Viet Nam

fundamentals need time to turn well. Therefore, the needs to establish its own “self-help” mechanism for economic management become the general sentiments among East Asia economies. Urata (2005), moreover, argued that the 1997/98 Asian financial crises has increased the awareness among East Asian economies on the need for regional cooperation, such as FTAs to refrain the another crisis and to promote regional economic growth. Unlike in the other region, FTAs and prospective FTAs in East Asia consist of not only reducing the trade barriers in trade and investment, but also economic and technical assistance under the name of EPAs.

### ***Regional Policy Forums***

In addition to trade agreements, there have been also many other form of regional cooperation in the region. According to ADB (2008), at least there have been 14 major groups that help to manage various requirements of cooperation among East Asian economies. While the ASEAN, which was established in 1976, is the first of these organizations, seven more were started in the following 30 years. Since the 1997/98 Asian financial crisis, six more have been established, nearly doubling the forums available for regional economic cooperation. Moreover, several existing groups, especially ASEAN, have been substantially strengthened over the years.

The 1997/98 Asian financial crisis, according to Kawai (2006), was a milestone in regional cooperation initiatives in the region. He explained that the economic integration in the pre-period of Asian financial crisis was mainly market-led and private sector driven, amid the few number and limited scopes of government-led cooperation. The existing regional cooperation initiatives, such as the APEC (1989), the AFTA (1992), and the SAPTA (1993), were usually limited to the areas of cross-border infrastructure and trade. On contrary, however, following the 1997/98 Asian financial crisis a series of government regional cooperation initiatives started to supplemented the market-led regional economic integration. In addition, the scope of these regional cooperation initiatives has widened to the areas of money and finance, trade and investment, and other regional public goods.

He, moreover, explained the focus of the regional monetary and financial cooperation as well as the trade and investment initiatives in the post crisis period. In the monetary and financial sector, the focus include: first, to enhance the regional economic surveillance mechanism, the region established the ASEAN Surveillance Process (ASP) and the ASEAN+3 Economic Review and Policy Dialogue (ERPD). Second, as a regional mechanism for short-term liquidity support, the region established a network of bilateral swap agreements as a part of the Chiang Mai Initiatives (CMI) and the ASEAN+3 governments planed improved to be multilateralization of the CMI. Third, to mobilize regional savings for regional investment and reduce “double mismatch” problem (currency and maturity mismatch), the ASEAN+3 Finance Ministers have initiated the Asian Bond Markets Initiatives (ABMI), involving measures to deepen and strengthen the region’s local currency bond markets.

In the trade and investment sector, similarly, the post crisis period have also witnessed a growing number of government-led regional cooperation initiatives. First, ASEAN hastened its intra-regional trade cooperation initiatives by advancing the deadline for the implementation of the AFTA from 2008 to 2002. Second, ASEAN has also established closer economic partnerships with its major trading partners: Japan, China, Korea, India, as well as Australia and New Zealand through a series of economic partnership agreements. Third, in other part of Asia, a South Asia FTA (SAFTA) was established in January 2004, and is expected to be fully implemented by 2016. Fourth, An Asia-Pacific Preferential Trade Agreement (APTA), which replaces the 1975, has also been under negotiation. Lastly, as explained above, a number of bilateral FTAs have been signed or negotiated in the post-period of Asian financial crisis. Table 3 shows a summary of some major economic groups involving East Asian economies and their different areas of cooperation

Table 3: Major Economic Cooperation Groups in East Asia and Pacific

Name, Year Established	Membership	Areas of focus	Major initiatives
Asia Cooperation Dialogue (ACD 2002)	Bahrain, Bangladesh, Brunei Darussalam, Cambodia, People's Republic of China, India, Indonesia, Iran, Japan, Kazakhstan, Republic of Korea, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Oman, Pakistan, Philippines, Qatar, Russia, Saudi Arabia, Singapore, Sri Lanka, Tajikistan, Thailand, United Arab Emirates, Uzbekistan, Viet Nam.	<ul style="list-style-type: none"> <li>• Technology,</li> <li>• Tourism</li> <li>• Trade and Investment</li> <li>• Money and Finance</li> <li>• Energy</li> <li>• Health and Education</li> <li>• Politics</li> <li>• Agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Annual Ministerial meetings</li> <li>• Projects in 19 areas involving cooperation between various members</li> <li>• Think Tank (symposium and network) to support ACD projects</li> </ul>
Asia Pacific Economic Cooperation (APEC 1989)	Australia; Brunei Darussalam; Canada; Chile; Hong Kong, China; Indonesia; Japan; Malaysia; Mexico; New Zealand; Papua New Guinea; People's Republic of China; Peru; Philippines; Republic of Korea; Russia; Singapore; Taipei,China; Thailand; United States; Viet Nam.	<ul style="list-style-type: none"> <li>• Business Facilitation</li> <li>• Economic and technical cooperation</li> <li>• Trade and investment liberalization</li> </ul>	<ul style="list-style-type: none"> <li>• Bogor Goals of, "free and open trade and investment"</li> <li>• Early Voluntary Sectoral Liberalization</li> <li>• APEC Business Travel Card</li> <li>• Best Practices for RTAs and FTAs,</li> <li>• Declaration on Climate Change, Energy Security and Clean Development</li> </ul>
Asia-Europe Meeting (ASEM 1996)	ASEAN members, ASEAN Secretariat, European Union members, European Commission, India, Japan, Mongolia, Pakistan, People's Republic of China, Republic of Korea.	<ul style="list-style-type: none"> <li>• Cultural and intellectual issues</li> <li>• Financial and social reform</li> <li>• Political issues</li> <li>• Trade and investment barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Asia-Europe Cooperation Framework</li> <li>• Asia-Europe Foundation</li> <li>• Trans-Eurasian Information Network</li> </ul>
Association of Southeast Asian Nations (ASEAN 1967)	Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, Singapore, Viet Nam.	<ul style="list-style-type: none"> <li>• Economic Cooperation</li> <li>• Trade and Investment</li> <li>• Regional Security</li> <li>• Socio-Cultural exchange</li> </ul>	<ul style="list-style-type: none"> <li>• Security Community</li> <li>• Regional Security Forum</li> <li>• Free Trade Area</li> <li>• Economic Community</li> </ul>
ASEAN plus Three (ASEAN+3, 1997)	ASEAN members, Japan, People's Republic of China, Republic of Korea.	<ul style="list-style-type: none"> <li>• Finance</li> <li>• Macroeconomics</li> </ul>	<ul style="list-style-type: none"> <li>• Finance Economic Review and</li> <li>• Policy Dialogue</li> <li>• Chiang-Mai Initiative</li> </ul>

Name, Year Established	Membership	Areas of focus	Major initiatives
			<ul style="list-style-type: none"> <li>• Asian Bond Markets Initiative</li> <li>• Research Group</li> </ul>
Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA 1994)	Brunei Darussalam, provinces of Indonesia, Malaysia, and the Philippines.	<ul style="list-style-type: none"> <li>• Agro-industry</li> <li>• Environment</li> <li>• Tourism</li> <li>• Transportation</li> </ul>	<ul style="list-style-type: none"> <li>• Roadmap to Development (2006-2010)</li> <li>• Agreements on air transport, other transportation, trade facilitation and tourism</li> </ul>
Central Asia Regional Economic Cooperation (CAREC 1997)	Afghanistan, Azerbaijan, provinces of the People's Republic of China, Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan, Uzbekistan.	<ul style="list-style-type: none"> <li>• Energy</li> <li>• Trade facilitation</li> <li>• Trade policy</li> <li>• Transport</li> </ul>	<ul style="list-style-type: none"> <li>• Comprehensive Action Plan (CAP, 2006)</li> <li>• Transport and Trade Facilitation Strategy</li> <li>• CAREC Institute</li> </ul>
East Asia Summit (EAS 2005)	ASEAN members, Australia, India, Japan, New Zealand, People's Republic of China, Republic of Korea.	<ul style="list-style-type: none"> <li>• Economic community</li> <li>• Energy and Environment</li> <li>• Trade and Finance</li> </ul>	<ul style="list-style-type: none"> <li>• Declaration on Climate Change, Energy and the Environment</li> <li>• Declaration on East Asian Energy Security</li> </ul>
Greater Mekong Subregion (GMS 1992)	Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam, and two Chinese provinces.	<ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Environment</li> <li>• Human resource development</li> <li>• Tourism</li> <li>• Trade and investment</li> <li>• Transport, energy, telecommunications</li> </ul>	<ul style="list-style-type: none"> <li>• East West Economic Corridor</li> <li>• Ten Year Strategic Framework</li> </ul>
Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT 1993)	Provinces in Indonesia, Malaysia and Thailand.	<ul style="list-style-type: none"> <li>• Agriculture and fisheries</li> <li>• Environment</li> <li>• Human resources development</li> <li>• Tourism</li> <li>• Trade and investment</li> <li>• Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• IMT-GT Roadmap to promote trade and investments, agriculture, agro-industry, tourism, infrastructure, human resource development, mobility of labor, natural resource management</li> <li>• Joint Tourism Promotion</li> </ul>
Pacific Islands Forum (PIF 1971)	Australia, Cook Islands, Micronesia, Fiji, Kiribati, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu.	<ul style="list-style-type: none"> <li>• Energy</li> <li>• Information and Communications Technology</li> <li>• Transport</li> </ul>	<ul style="list-style-type: none"> <li>• Pacific Agreement on Closer Economic Relations</li> <li>• Pacific Aviation and Safety Office</li> <li>• Pacific Island Countries Trade Agreement</li> </ul>
Shanghai Cooperation Organization (SCO 2001)	People's Republic of China, Kazakhstan, Kyrgyz Republic, Russian Federation, Tajikistan, Uzbekistan.	<ul style="list-style-type: none"> <li>• Political issues</li> <li>• Culture and education</li> <li>• Energy and transportation</li> <li>• Environment protection</li> <li>• Science and technology</li> <li>• Trade and economy</li> </ul>	<ul style="list-style-type: none"> <li>• Action plan on implementation of the program for multilateral trade and economic cooperation</li> <li>• Regional antiterrorist structure</li> <li>• SCO Business council and inter-bank consortium</li> </ul>
South Asian Association for Regional Cooperation (SAARC 1985)	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka.	<ul style="list-style-type: none"> <li>• Agriculture and rural development</li> <li>• Environment and forestry</li> <li>• Health and population</li> <li>• Human resources development</li> <li>• Science, technology and meteorology</li> <li>• Transport Women, youth and children</li> </ul>	<ul style="list-style-type: none"> <li>• SAARC Development Fund</li> <li>• South Asian Free Trade Area</li> </ul>

Source: Asian Development Bank (2008)

Below are further short discussions on several key regional cooperation initiatives groups in trade and investment areas and monetary and financial areas that have formed involving East Asian economies: ASEAN, ASEAN+3, East Asia Summit (ASEAN+6), APEC and ASEM.

**ASEAN:** established original five member countries<sup>5</sup> in 1967, ASEAN is the first initiatives for institutionalize regional economic integration in East Asia, and up to now, it has been the only formal organization that pursued economic integration in the region. Although the institutional goals were principally political, endeavoring for peace and security in Southeast Asia, ASEAN also aims to promote cooperation in economic, social and cultural areas. As the political security secured and regional security concern was manageable by mid-1970s, since then ASEAN has focused on economic and social objectives. Since the mid-1970s ASEAN introduced several initiatives to strengthened economic cooperation among ASEAN member countries, including: the ASEAN Industrial Projects (AIP) in 1976, the ASEAN Preferential Trading Arrangements (PTA) in 1977, and the ASEAN Industrial Joint Ventures (AIJV) scheme in 1983.

Afterward, the association has conducted several economic integration initiatives. Since the 1990s the efforts to integrate the ASEAN economies were seriously pursued with the enlargement of ASEAN members countries. In 1992, the efforts to integrate the ASEAN economies were seriously pursued since 1990s, with the enlargement of ASEAN members countries. In 1992, ASEAN member countries established the ASEAN free trade area (AFTA) intended to increase ASEAN's competitive edge as a production base for the world market through the Common Effective Preferential Tariff (CEPT) scheme where intra-regional tariffs will be cut to 0-5% by 2008.<sup>6</sup> In 1995, ASEAN countries accomplished the ASEAN Framework Agreement on Services (AFAS) and ASEAN has also made progress in cooperation on FDI through one-stop investment centre, the ASEAN Investment Area signed in 1998.

The regional cooperation in the ASEAN region experienced further deepening and widening after the Asian financial crisis. In December 1997, ASEAN leaders adopted the ASEAN Vision 2020, which can be regarded as a long-term road-map for ASEAN. The plan envisaged the establishment of an ASEAN Community by the year 2020, which envisaged an outward looking organization living in peace, stability and pro prosperity, bonded together in partnership in dynamic development and in a community of caring societies. of an ASEAN Community comprising three pillars, namely an ASEAN Economic Community (AEC), an ASEAN Security Community (ASC) and an ASEAN Socio-cultural Community (ASCC). In Cebu Summit in January 2007, the ASEAN

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<sup>5</sup> The five original ASEAN member countries include Indonesia, Malaysia, Philippines, Singapore, and Thailand. Then the association was enlarged its membership when other five South East Asian countries included in its memberships: Brunei Darussalam (1984), Vietnam (1995), Laos (1997), Myanmar (1997) and Cambodia (1999).

<sup>6</sup> In 1994, the dateline has been moved closer from its initial date of 2008 to 2003, and in 1995 it was finally to 2002 (with later implementation dates for its newer members: Vietnam in 2006, Laos and Myanmar in 2008, and Cambodia in 2010).

leaders decided to accelerate the schedule to achieve the goals, including the AEC, by 2015. Later, in the Singapore Summit in November 2007, the leaders signed the ASEAN Charter to establish the group as a rules-based legal entity, improve decision making, and hastened economic integration.

In addition to regional cooperation initiatives in trade and investment areas, under the ASEAN framework, the ASEAN economies also embarked cooperation in monetary and financial areas. The first initiatives were initiated in August 1977, when the original five ASEAN central banks and monetary authorities agreed the first memorandum of understanding on the ASA with the total facility of the total facility of US\$100 million, which was then in 1978 the total was increased to US\$200 million, with each member contributing US\$40 million. This agreement aims to provide immediate, short-term swap facilities to any member facing a temporary liquidity shortage or a balance of payments problem. Below are also other regional financial and monetary cooperation initiatives involving the ASEAN countries.

- *The Manila Framework*

In November 1997, Senior officers of the Ministry of Finance and Central Bank of 14 Asia Pacific economies<sup>7</sup> who met in Manila in November 18-19, 1997 agreed to develop a framework of cooperation to deal with the financial crisis in the region, known as the Manila Framework. They agreed to establish a regional surveillance mechanism to complement the global surveillance conducted by the IMF, enhance the economic and technical cooperation among themselves to strengthen the financial systems of the countries in the region in particular, and seek the possibility of cooperative financing arrangement to supplement the IMF rescue package.

A year after, ASEAN leaders, recognizing the need to develop a more specific region-based and rapid response surveillance mechanism, endorsed the Manila Framework within the ASEAN region by establishing the ASEAN Surveillance Process (ASP) to monitor and review macroeconomic and financial development of the member countries. The objective was to strengthen the policy dialogue and policymaking capacity in monetary, fiscal and financial areas through information exchanges, peer reviews and recommendations for action at the regional and national levels. The process is the first concrete attempt by a group of developing countries to establish mechanisms for regional policy dialogue.

- *New Miyazawa Initiative and Asia Growth and Recovery Initiatives*

There have also been some other regional cooperation initiatives in monetary and financial initiatives that try to be proposed during the 1997/98. Among of them are Asian Monetary Fund (AMF) proposal, New Miyazawa Initiative and Asia Growth and Recovery Initiatives. The AMF was proposed by Japan, with support from Korea and ASEAN, in September 1997 following the success of the August meeting between Japan

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<sup>7</sup> Australia, Brunei Darussalam, Canada, China, Hong Kong SAR, Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and the United States.

and Thailand in Tokyo on a much-needed financial support package for crisis-affected Thailand. The AMF was designed to supplement IMF resources for crisis prevention, management and resolution and aims to pool foreign exchange reserves held by the East Asian authorities, both to deter currency speculation and to contain a currency crisis and contagion in a member economy. Unfortunately, this proposition was opposed by the US and the IMF due to moral hazard and duplication reason, and without the clear support from China, the idea was eventually abandoned.

Unlike the AMF ideas, the New Miyazawa Initiatives was highly successful. In October 1998, Japan Pledged US\$30 billion to support the economic recovery of the crisis-affected countries. Half of the pledged amount was placed to short-term financial needs during the process of implementing economic reform and restructuring, while the other half part was assigned for medium-and long-term reforms. The initiatives also offered major assistance for restructuring corporate debt, reforming financial sectors, strengthening social safety nets, generating employment, and addressing the credit crunch. A pledge to offer a large amount of resources helped stabilize the regional markets and economies, thereby facilitating the recovery process.

In addition to New Miyazawa Initiatives, in November 1998, the US, together with Japan, introduced the Asia Growth and Recovery (AGRI), which was a multilateral effort to stimulate economic growth in Asia. AGRI was intended to initially target the mobilization of US\$5 billion in bilateral and multilateral support to further corporate restructuring and restore market access to private capital, including for small and medium firms. Despite its fail to provide additional resources for neither East Asia's restructuring process nor produced visible results, it has strengthened/established bond guarantee functions of the World Bank and the ADB.

**ASEAN+3:** initiated right after the crisis hit, the ASEAN+3 process was *de facto* started in December 1997 when the leaders of China, Japan and Korea was invited to the informal ASEAN Leaders Meeting in Kuala Lumpur. The meeting discussed the prospects for the development of East Asia in the 21st century and the deepening of the regional economic ties. Since then, ASEAN+3 countries have held a summit every year at the ASEAN+3 meetings, and have held regular meetings of their finance ministers. At the second ASEAN+3 (APT) leaders meeting in Hanoi in 1998, South Korean president Kim Dae-jung proposed the establishment of an East Asian Vision Group (EAVG) to develop a road map for regional cooperation.

Afterward, at the third APT leader meeting in Manila in 1999, the joint statement on the East Asia Cooperation was issued for the first time. The meeting has succeeded to address eight fields of financial and economic cooperation. In addition, the three North East Asia economies decided to initiate a multiparty study project involving institutes of the three countries to discuss the prospect of the establishment an FTA among themselves in Northeast Asia. Later on, at the fourth meeting in Singapore in 2000, the prospect of build a formal institutional links between Southeast and Northeast Asia and the possible development of East Asian free-trade area become more appearance. In this meeting, the

ASEAN+3 leaders established an East Asia Study Group (EASG), consisted of government officials, to respond to the Vision Group's recommendations.

In 2001, the Vision Group envisioned the progressive integration of the integration of the East Asian economies, eventually leading to and "East Asian Economic Community", including the formation of a region-wide FTA covering both trade and investment. Afterward, in 2002 the ASEAN+3 leaders received the EASG Final Report, which identified 17 concrete short-term measures and 9 medium- to long-term measures to move East Asian cooperation forward. In 2003, the leaders endorsed the implementation strategy of the short-term measures—to be implemented by 2007—and in 2004 persuaded the implementation acceleration of the short-term measures and medium-and long-term measures proposed by the EASG.

Aside of ASEAN+3 leaders meeting, within the framework of ASEAN+3 cooperation, there are many ministerial process, including meeting for foreign affairs, economy and trade, macroeconomic and finance, environment, energy, health, labor, science and technology and social welfare. Among others, the finance ministers have been particularly active in regional financial cooperation, including the introduction of the regional liquidity support arrangement (the Chiang Mai Initiatives), Economic Review and Policy Dialogue Process (ERPD), and the Development of local-currency bond markets. The objective of those initiatives are to prevent another crisis to happen and when the crisis take place, they enable the region to better manage the crisis. Below are the futher detail discussion on these three pilar of the regional financial cooperation in region under the framework of ASEAN+3 agreements.

- *Chiang Mai Initiatives*

The Chiang Mai Initiative was agreed upon by the Finance Ministers of ASEAN+3 countries in May 2000. It established the regional reserves pooling among ASEAN+3 members countries and was designed to address short-term liquidity needs in the event of a crisis or contagion and to supplement the existing international financial arrangements. CMI expanded the existing ASEAN Swap Arrangement (ASA) which originally are among ASEAN 5 member countries (Indonesia, Malaysia, Philippines, Singaporea and Thailand) to include the all ASEAN members and augmented with a netwrok of bilteral swap arrangement among ASEAN countries, China, Japan and Korea.

Since the ASEAN+3 summit meeting in November 2000, Japan, China and South Korea have been negotiating BSAs with each other and with the ASEAN countries. One of the important features of CMI BSAs is that members demanded liquidity support can immediatly obtain short-term financial assistance for the first 20% of the committed amount, while the remaining 80% is provided to the requesting member under an IMF link program. In addition to ASA and BSA, the third item of the CMI is the repurchase agreement the repurchase agreement is also developed to supply short-term liquidity to contributor member the sale and buyback of appropriate securities.

Over the years, continuous progress has been made to enhance CMI since its introduction. In May 2005, ASEAN+3 agree to integrate and enhance the ASEAN+3 ERPDP into the CMI frameworks. At the same time, they also increased the ceiling for withdrawal without and IMF program in place from 10% to 20% in total. A year later, in May 2006, the ASEAN+3 financial ministry meeting agreed to adopt the collective decision-making procedure for CMI swap activation, as a step toward multilateralizing the CMI. An agreement in principle on a self-managed reserve pooling arrangement, governed by as single contractual agreement as an appropriate form of CMI multilateralization, was agreed in May 2007 (Kawai, 2007). Recently, these swaps have grown in term of nominal values to about US\$85 billion in 2008 and in May 2009, the Chiang Mai Initiatives was formally multilateralized and expanded to US\$ 120 billion as the Asia fund.

- *The Economic Review and Policy Dialogue (ERPDP)*

The ERPDP is the most important regional economic surveillance forum under the ASEAN+3 frameworks. The ASEAN+3 Economic Review and Policy Dialogue (ERPDP) was promoted in May 2000 in the Finance Ministers' Meeting in order to enhance policy dialogue, coordination and collaboration on common interest related the issues on financial, monetary and fiscal. The ASEAN+3 ERPDP was established to attain several objectives including identifying possible financial crises and preventing them, monitoring regional capital flows, strengthening the banking and financial systems, reforming the international financial architecture and enhancing the self-help and support mechanism in East Asia. Other major mechanisms of regional economic surveillance forum in the region are: the ASEAN finance ministers' Surveillance Process, the ASEAN Central Bank Governors' Meeting, and the Executive Meeting of East Asia-Pacific Central Banks (EMEAP) process, and trans-regional forums such as APEC and Asia-Europe Meeting (ASEM).

Until recently, some steps have been conducted for cooperation in monitoring short-term capital flows and developing a regional early-warning system to assess regional financial vulnerabilities, with a view to avoiding financial crisis in the future. Recently, the ERPDP process in transition from the *information sharing* stage to *peer reviews*, and it will have to aim to achieve the next stage of *due diligence*—a more rigorous scrutiny of a potential debtor economy from a potential creditor's perspective. When this evolution is on going, the ERPDP is also being more closely linked to the Chiang Mai Initiative (CMI). However, this process has not yet been as effective as it should be as ASEAN+3 ERPDP has not able to exercise surveillance on a daily basis, and thus its effectiveness remains limited as it lacks of a formal institution structure or independent and professional organization that prepares comprehensive papers for analysis, assessments and issues to support the process (Kawai, 2004; 2007).

- *Asian Bond Market Development*

Aiming at reducing the high reliance of the region to short term banking financing, the APT finance ministers adopted the ABMD in August 2003. It aims to develop efficient and liquid bond markets in Asia, enabling better utilization of Asian savings for Asian

investments and expected to mitigate currency and maturity mismatches in financing (asiabondonline, accessed Oct 20 2007). Under the ABMD, there are four working groups which work on the development of new securitized instruments, establishing regional credit guarantee mechanism, exploring an Asian settlement system and strengthening Asian Credit rating agencies. Apart from the ABMD which is more information sharing and capacity building initiative to develop the bond market (supply side), the EMEAP initiative for developing Asian Bond Market is more demand side. The EMEAP initiative, materialized in the form of an Asian Bond Fund (ABF), is to help expand the bond market through the purchase of bonds using foreign exchange reserves. As only US dollar-denominated bonds have been purchased, the ASEAN+3 finance process has embarked the Asian Bond Market Initiatives (ABMI) to develop local currency denominated bonds.

**East Asia Summit (ASEAN+6):** established in November 2004 during ASEAN leaders meeting in Vientiane is one of recent significant development. At that time, with the suggestion from the East Asian Vision /Study Group, the ASEAN leaders agree to arrange a new forum so call the East Asia Summit (EAS), yet without a clear view of which countries should be involved. The first EAS meeting was held in Kuala Lumpur in December 2005, followed by Cebu in January 2007, and Singapore in November 2007, with the participation of all 13 ASEAN+3 members as well as Australia, India, and New Zealand. In the January 2007 meeting, this wider group agreed to focus on five priority cooperation areas: energy, education, finance, avian influenza and natural disaster mitigation.

With the establishment of EAS, the future economic cooperation in East Asia, leading to an East Asian economic community, is likely to evolve around the multiple agreements under the ASEAN, ASEAN+1, ASEAN+3, and East Asia Summit (EAS, or ASEAN+3) process. It is likely that the ASEAN Economic Community to be created by 2015 will be the center of East Asian economic cooperation. It is now understood that ASEAN is the driving force and ASEAN+3 the main vehicle for the realization of an eventual East Asian economic community, with the EAS “an integral part of the overall evolving regional architecture”. Nevertheless, how effective the EAS will become as a group remains to be seen (Kawai 2004; 2007).

#### **4. The Gravity Model: The Impact of FTAs on Trade Flows in East Asia during the Two Crises Periods**

In the previous section, we have showed the progress of economic integration in East Asia during the pre- and post- periods of the 1997/98 Asian financial crisis and the 2008/09 global financial crisis by examining several measures of regional integration in trade, investment, and financial sector. The preceding section above has also discussed how those two economic crises have influenced and shaped the development of regional cooperation and regional forum policy dialogues in East Asia.

In addition to those analyses, this section will conduct a deeper analysis on the impact of the development of regional cooperation, especially the free trade agreement, on the level and direction of bilateral trade flows during the pre- and post- periods of economic crises. In this regard, this paper want to know whether the economic crises hindrance the aims of the development of regional cooperation and regional forum policy dialogue or whether it helps the acceleration of the process and *de facto* economic integration itself as showed in the analysis on the trend of crude indicators in the previous section above.

In order to know whether the impact of the East Asia trading bloc on the direction of bilateral trade flows is strengthened or weakened due to economic crises, we will particularly run a modified econometric model that incorporated variables of regional economic integration. Practically, we will scrutinize the changing in the coefficient of East Asia RTA dummy variables over some period of times (pre- and post period of the two crises), which represented by two different pooled data set. The further explanation on the technique of the model estimation utilized in this paper will explain below.

### ***Model Estimation***

In the last four decades, since the first work of Tinbergen (1962) and Poyhonen (1963) the gravity model has been one of important methodology to study the cross-country analysis of international trade flows. In recent years, moreover, the popularity of gravity model has experienced a revival in line with the renewed interest in economic geography, which considers geographic and other kinds of distance as an important factor in economic activities. By reviewing some existing literature on gravity model of trade, Cheng and Wall (2005) stated that this model has been used widely as a baseline model for estimating the impact of variety of policy issues, including regional trading groups, currency unions, political blocs, patent rights, and several of distortions. For regional integration, in particular, Eichengreen and Irwin (1998) described the continuing popularity of the model as the “workhorse for empirical studies of [regional integration] to the virtual exclusion of other approaches”.

In light of rapid expansion of FTAs since the 1990s, there have been an increasing number of studies that have attempted to examine the effect of a variety FTAs by applying the gravity model. For examples, Frankel, Stein and Wei (1995) and Frankel (1997) studied the impacts of major trading blocs (EU, NAFTA, MERCOSUR, and AFTA) and found that significant positive effects in the cases of MERCOSUR and AFTA, but not in the cases of the EU and NAFTA. Analyzing similar major multilateral FTAs group, meanwhile, Soloaga and Winter (2001) also tried to capture the trade creation and two way trade diversion effects. They found significant positive effect on trade creation for the FTAs only in Latin American countries, and significant trade diversion effects for the cases of the EU and EFTA.

Endoh (2000), moreover, examined the trade creation and trade diversion effects of the EEC, LAFTA, and CMEA, and found both effects for these FTAs, although the effects were diminishing in the 1990s. Moreover, Elliott and Ikemoto (2004) analyzed ASEAN intra- and extra-regional bias in bilateral trade flows and how these relationships have

altered over times, and they found that trade flows were not significantly affected in the early years following the signing of the AFTA. Furthermore, they also found that although the traditional position of ASEAN countries to outward oriented economic activity has not been significantly damaged and on contrary, rather stimulated by the AFTA process and/or the Asian economic crisis, the crisis in fact has generated a stronger desire to source imports from within the region.

Those studies above indicated that the estimated results on the impact of FTAs on trade flows by using the gravity model are not uniform but mixed. While the trade creation effects of FTAs are found in many cases, a lot of study suggested that the magnitude of the effects depend on the time period and other circumstances. Against this background, in this section we extend the earlier analyses by using a large recent data sample and by taking a particular attention to the two crises periods, in order to deepen our understanding of the impact of FTAs on trade flows during the pre-and post crises periods. The methodology in this section follows the methodology used by Endoh (2000), Soloaga and Winters (2001), and Elliot and Ikemoto (2004). Below are the detail explanation of the model, data, and its results and analysis.

The Basic equation of gravity model is inspired by the Newton’s theory of gravity postulates that the gravitational force between two objects is directly proportional to each of their masses, and inversely proportional to the square of the distance between them. For the case of trade, the gravity model assumed that the trade is positively related to two countries incomes (country’s economic mass) and negatively related to the distance between them (reflected by transport cost). This relation is formulated below.

$$X_{ij} = C \frac{Y_i Y_j}{D_{ij}} \dots\dots\dots (1)$$

Take logs, add some reduce form coefficients, and include an error term, the model above become the familiar empirical gravity model

$$\log X_{ij} = b_0 + b_1 \log(Y_i) + b_2 \log(Y_j) + b_3 \log(D_{ij}) + \log u_{ij} \dots\dots\dots (2)$$

Where  $X_{ij}$  is the export of country  $i$  to country  $j$ .  $Y_i$  and  $Y_j$  is the income of country  $i$  and  $j$ .  $D_{ij}$  is the distance between country  $i$  and  $j$  and  $u_{ij}$  is the log normally distributed error term where  $E(\log u_{ij})=0$ . The equation (2) reveals the trade flow between countries  $i$  dan  $j$  and perform as a counterfactual if the is no RTAs.

In this paper we augment the basic gravity model by adding some determinant variables of trade between two countries and some RTAs dummy variables to take effect of regional trade agreement. The model becomes as follow.

$$\log X_{ij} = b_0 + b_1 \log(Y_i) + b_2 \log(Y_j) + b_3 \log(D_{ij}) + b_4(Lang_{ij}) + b_5(Adj_{ij}) + \sum b_6(RTA_{ijk}) + \sum b_7(imRTA_{ijk}) + \sum b_8(exRTA_{ijk}) + \log u_{ij} \dots \dots \dots (3)$$

Where  $X_{ij}$  denotes total export value between country  $i$  and  $j$ . In this case, practically, we use a mirror approach to approximate the export data using import data, as the later is usually better recorded than the former.  $Y_i$  and  $Y_j$  denote GDP country  $i$  and  $j$ , respectively, while  $Y_i * Y_j$  is the multiplication of GDP country  $i$  and  $j$ .  $D_{ij}$  indicates the distance in km between the largest cities of countries  $i$  and  $j$ . All those variables take a natural logarithm form.

Meanwhile,  $Adj$ ,  $Lang$ , and  $RTA$  are respectively variables for adjacency, language, and various form of regional trade agreement, and they are dummy variables. For *language*, the value of unity is given if countries  $i$  and  $j$  share common official languages, while for *Adjacency* the value of unity is given when countries  $i$  and  $j$  share the common border.  $RTA_{ijk}$  denotes a “comprehensive RTA effects”, and it is binary variable which is unity if country  $i$  belong to the same RTA with country  $j$ . Similarly,  $imRTA_{ijk}$  is 1 if only the import country  $i$  belongs to RTA  $k$  and 0 otherwise and likewise,  $exRTA_{ijk}$  is 1 if only the export country  $j$  belongs to RTA  $k$  and 0 otherwise. The RTA’s considered in this study are East Asia Summit countries (EAS), EU, NAFTA and MERCOSURE. Finally,  $u_{ij}$  the log normally distributed error term, where  $E(\log u_{ij})= 0$

Among the determinant variables,  $Y$  is a proxy for economic scale and income level and its estimated signs are expected to be positive because the large economic scale and the higher income level will promote bilateral trade as a larger economy tends to pull more goods from its trading partners and similarly, a large economy also tends to pushes more goods towards its trading partners. However, this process is impeded by trade costs, both tangible and intangible trade costs. Therefore, for distance variables, the sign is expected to be negative as the longer the distance, the larger the cost, while for the dummy variables of Adjacency and Language, their estimated coefficients are expected to be positive. The binary variable RTA captures a “comprehensive FTA effect” on trade flow, and we expect the estimated association to be positive, if trade creation emerges.

Noteworthy, moreover, regarding the RTA dummy variables, we follow Endoh’s (2000), Elliot and Ikemoto’s (2004) and Urata and Okabe’s (2007) approach that employing three dummies per region: not only the “RTA” dummy, but also “imRTA” and “exRTA”. These two addition RTA dummies, that what we called as “import trade diversion” and “export trade diversion” enables us to tell whether an increase in an institutional dummy is due to an increase in intra-regional trade, a decrease in trade between members and non-members, or both.

In our estimation result, “RTA” captures the total intra-regional trade bias or trade creation defines in a Johnson (1962) sense. Meanwhile, the dummy “imRTA” captures the extra-regional import bias of intra-RTA trade or the import trade diversion as a result of changes in the import structure of the RTA where a negative and significant coefficient

indicates that member countries have switched to importing from members rather than non-members. Lastly, “exRTA” captures the extra regional export bias of the RTA to the rest of the world or the export trade diversion where a negative and significant coefficient means that the RTA has resulted that a member country prefer to export to members rather than non-members.

In this paper, practically, the incorporation of RTA dummy variables will be conducted in a sequential process. In the first instance, we estimate the equation (3) with a single intra-regional bias dummy for only East Asia RTA. Then, to test the robustness of East Asia RTA dummy variables, the other regional dummy variables of RTA for other regions are included all together as the gravity equation (3) is a method of explaining the world’s bilateral trade patterns and the data used in this paper also covers countries from other regions outside East Asia. Lastly, in order to investigate the degree of the trade creation and trade diversion as a result of RTA, two addition dummies, *imRTA* and *exRTA* will be incorporated in the equation. The degree of trade creation and trade diversion for each RTA is gathered from the movement of the coefficient of the three dummy variables.

We applied an ordinary least squares method to estimate the gravity equation indicated in estimation. The estimation will be used two pooled data groups: three years periods and five years periods, to allow us the evolution of the East Asia dummy variables before and after the Asian financial crisis and global financial crisis. The data covers the period 1991 to 2009 and will be divided into four five-year periods (1991-1995; 1996-2000; 2001-2005; and 2006-2009) and four three-year periods (1994-1996; 1997-1999; 2004-2006; 2007-2009). The five years period is selected in order to adjust the seasonal adjustment, while the three year period is added to directly assess the years of crises period.

### ***Data***

This study uses data from various sources. Data on bilateral trade is from IMF Direction of Trade (DOT). Data on exporter and importer GDP is gathered from the World Development Indicator (WDI). Meanwhile, data on history and geography, including international distance, language, natural barriers comes from CEPII, French research center in international economics. Data covers for the period 1991 to 2009.

### ***Result and Analysis***

Table 4a and 4b shows the results of the modified gravity equation using a “comprehensive” dummy variable for East Asia RTA from the two pooled data groups. The “comprehensive” intra-regional dummy variables for East Asia is firstly separated and then joined with other “comprehensive” intra-regional dummy variables for other regions. In those two pooled data groups, the overall model estimations used is good enough to explain the bilateral trade relation between countries as represented by the high value of adjusted R-square, ranging between 0.63 to 0.69. Furthermore, the estimated coefficient of the standard set of variables, which are typically incorporated in the gravity estimation, are generally also shown an expected signs and statistically significant. These findings imply that the magnitude of bilateral trade is supported by the economic size or

income levels, cultural and historical similarities, while it is deterred by their geographical distance.

As for the intra-regional dummies, the estimated result of equation 1 and 2 for the two different pooled data sets generally shows a mix result: positive sign and statistically significant for EAS and MERCOSUR, yet negative sign and statistically insignificant for EU and NAFTA. The positive sign of EAS and MERCOSUR intra-regional dummies implies that countries located within these regions do trade more with each other over and above the levels predicted by the basic explanatory variables, or in the other words, the trade creation is detected for these two regional groups.

These findings are similar to Fankel *et al.* (1995) and Endoh (2001) who recorded positive and significant coefficients for AFTA and MERCOSUR, but not in the case of EU and NAFTA. Nevertheless, these findings are to some extent different from other previous studies such as Sharma and Chua (2000) and Soloaga and Winters (2001) who found negative and significant coefficient for AFTA. Furthermore, these findings also consistent with our earlier findings from the crude indicator of trade integration in the previous section that showed the possible presence of trade creation effect for several major world regions, particularly East Asia and MERCOSUR.

Noteworthy, moreover, while the entire EAS coefficients show positive sign in all model estimation and for all time periods, they increased continuously with an accelerated pace since 1991 to 2006, before slightly tumbling down during the global financial crises. This finding implies that while the EAS regional group has created trade creation, the Asian financial crisis has actually magnified and accelerated that impact, as shown in the increasing of the EAS coefficients during the period of Asian financial crisis (1996-2000 or 1997-1999) and the afterward periods (2001-2005 or 2004-2006).

Recalling the analysis for the crude trade integration indicators above, one of possible explanation for this increasing of EAS coefficients is that the Asian financial crisis has forced the latent East Asian regional integration. In this regard, the depreciation of many East Asian currencies, together with the development of regional production network and in line with the rise of China and India, has stimulated bigger trade, especially from the import side, among countries in the region. The acceleration pace of EAS coefficient during the post periods of Asian financial crisis, moreover, might also be explained by the growing of regional cooperation and initiatives in the following years of the crisis, which in turn has also partly contributed to the increasing trade among the East Asia countries. The progress of

The slightly decline in EAS coefficients during the recent global financial crisis period (1996-2009 or 2007-2009), however, revealed that the crisis has also undermined the trade creation created by the growing of regional integration in East Asia. Similar to the analysis in the previous section, this result might be explained by the fact that despite increasing intra-regional trade in the region, the East Asia's intra-regional trade has been characterized with a notable asymmetry development: large part of intra-regional trade occurred mainly in imported sector and not in exported sector. This asymmetry

development has positioned the region remains heavily dependence on the external market. As a result, when the recent global financial crisis originated outside the region happened, it has not only reduced East Asia's trade with its extra-regional partners but also with countries within the region, as reflected in the declining of EAS intra-regional dummy coefficients.

Table 4a: Modified Gravity Model estimates for investigating intra-regional bias, pooled data for five years period (1991-2009)

Variables	Equation 1				Equation 2			
	1991-1995	1996-2000	2001-2005	2006-2009	1991-1995	1996-2000	2001-2005	2006-2009
_cons	4.47*** (21.67)	3.89*** (21.19)	3.74*** (19.99)	2.73*** (12.75)	4.48*** (21.17)	3.90*** (20.85)	3.74*** (19.6)	2.72*** (12.47)
ln_gdp_exp	1.05*** (154.19)	1.10*** (177.02)	1.13*** (165.95)	1.18*** (154.31)	1.05*** (150.22)	1.10*** (173.66)	1.13*** (162.83)	1.18*** (151.6)
ln_gdp_imp	0.90*** (129.49)	0.93*** (145.22)	0.89*** (131.66)	0.88*** (118.76)	0.90*** (125.89)	0.93*** (142.16)	0.89*** (128.9)	0.88*** (116.38)
ln_dist	-1.17*** (-51.38)	-1.17*** (-58.06)	-1.17*** (-57.42)	-1.14*** (-49.43)	-1.17*** (-49.6)	-1.17*** (-56.41)	-1.17*** (-55.68)	-1.14*** (-47.81)
contig	0.57*** (4.83)	0.67*** (6.08)	0.84*** (7.8)	0.91*** (7.88)	0.50*** (4.15)	0.62*** (5.41)	0.76*** (6.94)	0.84*** (7.15)
comlang_et~o	0.44*** (8.38)	0.56*** (11.54)	0.66*** (13.54)	0.86*** (15.99)	0.41*** (7.73)	0.54*** (10.89)	0.63*** (12.74)	0.84*** (15.31)
colony	1.42*** (12.32)	1.34*** (12.48)	1.18*** (11.79)	0.95*** (8.92)	1.44*** (12.52)	1.37*** (12.68)	1.21*** (12.12)	0.97*** (9.19)
comcol	1.18*** (15.57)	1.08*** (15.74)	1.02*** (14.78)	1.09*** (14.21)	1.20*** (15.76)	1.09*** (15.94)	1.04*** (15.07)	1.11*** (14.42)
eas	1.00*** (7)	1.13*** (8.46)	1.32*** (9.63)	1.31*** (8.89)	1.01*** (7.07)	1.14*** (8.51)	1.33*** (9.73)	1.33*** (8.97)
nafta					-0.06 (-0.12)	-0.03 (-0.05)	-0.20 (-0.28)	-0.31 (-0.39)
eu					-0.05 (-0.57)	-0.08 (-0.94)	-0.02 (-0.19)	0.04 (0.51)
mcsr					0.73*** (5.62)	0.75*** (5.32)	1.15*** (9.12)	1.00*** (6.7)
Adj R <sup>2</sup>	0.66	0.68	0.65	0.63	0.66	0.68	0.65	0.63
F-stat	4196.09	5710.88	5054.41	4230.86	3272.18	4335.28	3912.79	3336.98
No. obs	59115	77832	88490	73551	59115	77832	88490	73551

Note: \*\*\*, \*\*, and \* denote 1%, 5%, and 10% level significance respectively. The numbers in parentheses are the t-statistics. Due to the difference of observed years and missing values, the numbers of observations are not constant.

Table 4b: Modified Gravity Model estimates for investigating intra-regional bias, Pooled data for three years period (1991-2009)

Variables	Equation 1				Equation 2			
	1994-1996	1997-1999	2004-2006	2007-2009	1994-1996	1997-1999	2004-2006	2007-2009
_cons	4.26*** (21.38)	3.77*** (19.91)	3.33*** (16.62)	2.59*** (11.79)	4.27*** (21.03)	3.80*** (19.65)	3.34*** (16.35)	2.58*** (11.54)
ln_gdp_exp	1.07*** (158.58)	1.11*** (167.76)	1.16*** (156.61)	1.19*** (150.77)	1.07*** (155.27)	1.11*** (164.65)	1.16*** (153.72)	1.19*** (148.17)
ln_gdp_imp	0.93*** (133.56)	0.93*** (139.09)	0.89*** (123.56)	0.89*** (116.14)	0.93*** (130.56)	0.93*** (136.23)	0.89*** (121.04)	0.89*** (113.88)
ln_dist	-1.18*** (-53.66)	-1.15*** (-55.54)	-1.16*** (-53.48)	-1.14*** (-48.1)	-1.18*** (-52.18)	-1.16*** (-54.01)	-1.16*** (-51.88)	-1.13*** (-46.53)
contig	0.70*** (5.82)	0.67*** (5.88)	0.90*** (7.91)	0.91*** (7.69)	0.64*** (5.2)	0.62*** (5.27)	0.82*** (7.13)	0.84*** (6.99)
comlang_et~o	0.49*** (9.35)	0.57*** (11.42)	0.76*** (14.67)	0.89*** (16.19)	0.47*** (8.74)	0.55*** (10.8)	0.73*** (13.9)	0.86*** (15.53)
colony	1.43*** (12.5)	1.32*** (12.04)	1.04*** (10.28)	0.93*** (8.67)	1.45*** (12.68)	1.34*** (12.2)	1.07*** (10.59)	0.95*** (8.92)
comcol	1.22*** (15.99)	1.05*** (14.77)	1.07*** (14.53)	1.08*** (13.77)	1.23*** (16.15)	1.06*** (14.95)	1.10*** (14.78)	1.10*** (13.96)
eas	1.06*** (7.8)	1.12*** (8.13)	1.33*** (9.36)	1.30*** (8.73)	1.07*** (7.85)	1.13*** (8.15)	1.34*** (9.43)	1.32*** (8.81)
nafta					0.01 (0.01)	-0.07 (-0.11)	-0.33 (-0.43)	-0.33 (-0.4)
eu					-0.08 (-0.83)	-0.13 (-1.49)	-0.05 (-0.61)	0.03 (0.32)
mcsr					0.69*** (5)	0.70*** (4.92)	1.14*** (8.81)	0.95*** (6.27)
Adj R <sup>2</sup>	0.67	0.68	0.64	0.63	0.67	0.68	0.64	0.63
F-stat	4525.45	5204.66	4427.38	4049.22	3461.07	3955.78	3479.28	3197.90
No. obs	41146	46801	54817	54968	41146	46801	54817	54968

Note: \*\*\*, \*\*, and \* denote 1%, 5%, and 10% level significance respectively. The numbers in parentheses are the t-statistics. Due to the difference of observed years and missing values, the numbers of observations are not constant.

The lack of a consistent upward trend in the EAS dummy over our period of analysis leads us to take a closer examination on the overall impact of the emerging regional integration in East Asia. In this case, we analyze not only the trade creation effect but also the trade diversion effect. For this purpose, we incorporate the other two additional intra-regional dummy variables to represent the case when only the import or export country is a member of the RTA. For the case of trade creation, the estimated sign of the “comprehensive” intra-regional dummy variables for East Asia is positive, while the case of trade diversion, the estimated signs of the *imRTA* and *exRTA* are negative.

Table 5: Modified Gravity model estimates: trade creation and trade diversion, Pooled data for three years periods and five years periods (1991-2009)

Variables	Equation 3: five years periods (1991-2009)				Equation 3: three years periods (1994-2009)			
	1991-1995	1996-2000	2001-2005	2006-2009	1994-1996	1997-1999	2004-2006	2007-2009
_cons	5.46*** (22.95)	4.75*** (22.38)	5.06*** (23.79)	4.36*** (17.73)	5.19*** (22.45)	4.59*** (20.94)	4.78*** (20.9)	4.24*** (16.8)
ln_gdp_exp	1.00*** (106.46)	1.04*** (122.68)	1.05*** (117.6)	1.10*** (109.91)	1.01*** (109.05)	1.04*** (116.74)	1.08*** (111.11)	1.11*** (107.03)
ln_gdp_imp	0.87*** (92.21)	0.90*** (106.36)	0.85*** (95.36)	0.83*** (84.81)	0.88*** (94.18)	0.91*** (102.29)	0.85*** (88.37)	0.84*** (82.89)
ln_dist	-1.29*** (-48.09)	-1.26*** (-53.58)	-1.32*** (-55.9)	-1.31*** (-48.95)	-1.29*** (-49.59)	-1.25*** (-51.1)	-1.32*** (-52.47)	-1.31*** (-47.71)
contig	0.41*** (3.37)	0.57*** (4.95)	0.64*** (5.86)	0.71*** (6.02)	0.57*** (4.62)	0.57*** (4.84)	0.69*** (6)	0.70*** (5.9)
comlang_et~o	0.44*** (8.09)	0.56*** (11.24)	0.64*** (12.8)	0.82*** (14.71)	0.48*** (8.87)	0.57*** (11.13)	0.73*** (13.69)	0.84*** (14.82)
colony	1.39*** (12.09)	1.29*** (11.93)	1.17*** (11.62)	0.96*** (8.93)	1.39*** (12.07)	1.27*** (11.46)	1.06*** (10.39)	0.94*** (8.68)
comcol	1.17*** (15.44)	1.05*** (15.36)	0.99*** (14.48)	1.07*** (13.98)	1.19*** (15.67)	1.01*** (14.37)	1.05*** (14.16)	1.06*** (13.55)
eas	-0.16 (-0.95)	-0.06 (-0.41)	-0.13 (-0.82)	-0.34* (-1.93)	-0.09 (-0.54)	-0.05 (-0.3)	-0.23 (-1.35)	-0.35* (-1.94)
nafta	-0.02 (-0.03)	-0.02 (-0.04)	-0.16 (-0.22)	-0.44 (-0.53)	-0.02 (-0.03)	-0.02 (-0.03)	-0.21 (-0.27)	-0.52 (-0.63)
eu	-0.45*** (-4.58)	-0.57*** (-6.01)	-0.52*** (-5.28)	-0.49*** (-4.74)	-0.52*** (-5.04)	-0.60*** (-6.08)	-0.50*** (-4.88)	-0.50*** (-4.83)
mcsr	1.03*** (6.39)	1.36*** (8.25)	1.31*** (8.76)	1.14*** (6.54)	1.13*** (6.78)	1.32*** (7.88)	1.24*** (7.93)	1.10*** (6.2)
ex_eas	0.94*** (15.97)	1.09*** (21.72)	1.30*** (25.55)	1.34*** (22.9)	0.91*** (16.03)	1.10*** (21.05)	1.33*** (24.16)	1.33*** (22.07)
ex_nafta	0.04 (0.55)	0.12 (1.6)	-0.15** (-2.01)	-0.04 (-0.52)	0.14** (1.71)	0.12 (1.54)	-0.25*** (-3.25)	0.04 (0.48)
ex_eu	0.45*** (8.76)	0.56*** (12.9)	0.57*** (12.84)	0.62*** (13.48)	0.49*** (9.78)	0.55*** (12.36)	0.53*** (11.31)	0.63*** (13.56)
ex_mcsr	0.23*** (3.6)	0.07 (1.16)	0.56*** (9.87)	0.56*** (8.61)	0.14*** (2.14)	0.05 (0.73)	0.65*** (10.37)	0.55*** (8.06)
im_eas	0.61*** (9.23)	0.48*** (8.13)	0.59*** (9.67)	0.79*** (11.84)	0.64*** (9.81)	0.41*** (6.77)	0.65*** (9.7)	0.79*** (11.7)
im_nafta	0.49*** (5.06)	0.47*** (5.06)	0.83*** (8.88)	0.94*** (9.86)	0.50*** (5.11)	0.40*** (4.18)	0.84*** (8.82)	0.94*** (9.59)
im_eu	0.34*** (5.96)	0.33*** (6.45)	0.35*** (6.31)	0.33*** (5.34)	0.37*** (6.56)	0.29*** (5.34)	0.30*** (4.98)	0.32*** (5.04)
im_mcsr	-0.25*** (-3.72)	-0.39*** (-6.45)	-0.41*** (-6.82)	-0.33*** (-4.71)	-0.27*** (-4.12)	-0.40*** (-6.17)	-0.44*** (-6.61)	-0.32*** (-4.38)
Adj R <sup>2</sup>	0.67	0.69	0.66	0.65	0.68	0.69	0.65	0.65
F-stat	1986.04	2694.19	2468.94	2128.84	2109.2	2441.84	2190.33	2045.9
No. obs	59115	77832	88490	73551	41146	46801	54817	54968

Note: \*\*\*, \*\*, and \* denote 1%, 5%, and 10% level significance respectively. The numbers in parentheses are the t-statistics. Due to the difference of observed years and missing values, the numbers of observations are not constant.

Table 5 shows the result of the modified gravity equation that incorporated two additional intra-regional dummy variables: *imRTA* and *exRTA* for the two pooled data sets. Comparing the result in table 5 and table 4a-4b, we witness large differences in the result of the intra-regional dummies for RTA. The largest differences occur for the EAS intra-regional dummy, while the MERCOSUR, NAFTA and EU coefficients remain relatively stable and showed the same sign. Unlike in table 4a and 4b, in table 5 the intra-regional dummy for EAS shows negative sign, although it is not statistically significant, except for the recent global crises periods. Noteworthy, however, EAS intra-regional dummy is the statistically significant if we extend the level of significance to 10 percent.

Focusing on East Asia region, unlike the “comprehensive” intra-regional dummy for East Asia, *imRTA* and *exRTA* for East Asia shows positive signs and statistically significant for all time periods, including the two crises periods. These facts mean that East Asia countries members have traded with both countries within the region and outside the region. In the other word, these findings also imply and reconfirm that the EAS is not a discriminating bloc or exhibits “open regionalism”. This finding is consistent with the traditional stance of East Asian countries that typically characterized with outward oriented development strategy and this traditional stance has not been significantly damaged by the Asian financial crisis and the recent global financial crisis.

Examining the movement of the three intra-regional dummies over times, interestingly, the result shows that while the *exEAS* continued to increase over times, during the Asian financial crisis periods, the *imEAS* and the EAS intra-regional dummy (although they are not significant) experienced slightly decreased, before increasing in a more rapid pace afterward. As the *imEAS* and *exEAS* reveal the extent of the extra East Asian trade bias over the period, the generally increasing trend of these two dummies means that there has been a *negative* trade diversion effect. In particular, the positive sign and the upward trend in *exEAS* indicate that the *negative* trade diversion effect has been strengthening. In the other words, the volume of trade between members and non-members has been increasing, instead of falling as would be the case with trade diversion and welfare losses to non-members).

Strikingly, however, the increasing trend of *exEAS* dummies was slightly slower during the global financial crisis as can be shown by a small increase in the coefficient *exEAS* during that crisis periods (2006-2009 and 2007-2009). This finding implies that there has been a declining in export of the East Asia member countries to non-member countries during the recent global financial crisis. The small decrease in *imEAS* during the Asian financial crisis periods, meanwhile, reveal a weakening of the *negative* import trade diversion effect as the East Asia countries member begin to prefer to import goods from other member countries than the non-member countries.

The small weakening of the *negative* import diversion effect during the Asian financial crisis period and the lack of any export diversionary effect in all times period may be explained by the fact that, as explained above, East Asian countries have increased their export to the rest of the world during the Asian financial crisis due to changes in their real exchange rate. The depreciation of many East Asian currencies during the Asian financial

crisis have contributed to the increase of East Asian product competitiveness compare the rest of the world: exports and imports became less and more expensive respectively.

All in all, the overall findings above suggests there have been a growing trade integration between East Asian economies, yet this increasing integration did not deterred their trade relation with other countries outside the region. In the other world, the result seem to suggest that East Asia countries have been maintained their openness and outward orientation policy despite the development of many regional cooperation and initiatives as well as the economic crises (both the Asian financial crisis and the recent global financial crisis).

Focusing to the impact of the crisis, in particular, the results also suggests that although the crises has slightly reduced the intra-regional trade volume among East Asian economies, the two crises did not hindrance the aims of regional economic cooperation, but rather have worked as a trigger for a further acceleration of the process and *de facto* economic integration. In addition to the growing number of regional economic forum and initiatives following the Asian financial, this crisis has, in fact, generated a stronger desire to source imports from within the region, despite its relatively small effect. Noteworthy, however, the slower increased of negative export diversion effect and the weakening of the positive trade creation effect during the recent global financial crisis period has also shown that the East Asia region remains highly dependence to external market.

## **5. Conclusion**

There have been conflicting argument and facts around the relationship between the economic crises and regional integration in East Asia. This paper aims to address the question on the relationship between economic crises and regional economic integration in East Asia. In particular, this paper aims to answer whether or not the crisis helps or hindrances economic integration in East Asia? The economic crisis sorely refers to the two crises, i.e.: the Asian financial crisis in 1997/98 and the recent global financial crisis 2008/09. Meanwhile, the regional economic integration is defined in broader terms, both in term of regionalization (as economic process) and regionalism (as a political project). Lastly, East Asia refers to East Asian Summit member countries (ASEAN+6). In order to address the questions above, this paper utilized two different, yet complementing tools of analysis: indicators for regional economic integration in trade, investment and financial sectors as well as a modified gravity model.

With all the limitation, combining all those tools analyses this paper concluded that while the on-going market-led regional economic integration was generally interrupted during the Asian financial crisis in 1997/98, the process has been supported and hastened by the rapid growth of regional and bilateral trade and economic agreement, that mostly emerged following the 1997/98 Asian financial crisis. The 1997/98 has become a turning point for the emergence of regionalism in East Asia. Similarly, the 2008/09 recent global financial turmoil has also become another wake up call for East Asian economies to resume and further strengthen the development of regional policy initiatives and forum to

deepen the regional economic integration in the region, which was relatively stagnant in the last couple years. Although the natural (*de facto*) regional concentration of trade and FDI activities in East Asia has increased recently, the on-going global financial downturn has indeed re-exposed that the region remained heavily dependence to external markets.

This finding implies that East Asia needs a more balance growth economic development. In the other words, East Asia economies have to promote demand and reduce its export dependence. The effort to boost domestic consumption became more urgency by the evidence of declining domestic consumption, amid the contraction of exports during the recent global financial crisis. These efforts can be done through increasing government consumption and fiscal measures. However, these measures are only short-term solution. The longer-term solution could be achieved through allocating their massive reserves on infrastructure, education, health or energy programs. In case for infrastructure, in particular, the spending on this sector can also create jobs for people, which in turn enable them to spend.

Creating jobs that given income to the people, however, does not automatically increase the domestic consumption, unless the East Asian government have to be able to make their citizens feel less insecure about their healthcare, their children's education or their future and retirement. The East Asian governments have to able to create an incentive in order to permanently increase people's propensity to consume and reducing the need to save. In order to do so, the Asian government should improve the social protection and stability. Improving the social protection is important for East Asian countries to achieved growth based on domestic demand in order to recover from the crisis and ensure long-term growth. Maintaining social protection and individual security, together with reducing disparities and poverty, will create national socio-political stability, which is vital for the region's economic recovery as well as for healthy and long-term development.

Another way to reduce East Asia's dependence on export is to accelerate the growth of intra-regional trade. To achieve this, the East Asian countries should change on their region. Instead of viewing their region as primarily links in the global supply chain, the East Asian countries should see each other as end market. In this regard, introducing major reforms to encourage their citizens to spend is a necessity. Promoting intra-regional trade, moreover, can also be done through establishing free trade agreements. The establishment of FTAs is expected to be able to reduce barriers for trade and investment, which in turn will not only increase the trade activities among countries in the region but also promote growth and development.

However, the emerging of numerous regional grouping and forums, including FTAs has raised concerns on the overlapping and confusing groupings of varying geometry, which may increase cost of business. As each FTAs have its own ROO region, all FTAs in East Asia would be better be consolidated into a region-wide FTA that allow possibilities for compatible rules of origin (ROOs), product and technical standard, and conformance requirements. A region-wide FTA is needed to avoid market fragmentation and a "noodle bowl" effect from the proliferation of multilayered and overlapping FTAs. In this regard,

a consolidated region-wide FTA could be pursued through either in the form of an East Asian Free Trade area (EAFTA) among ASEAN+3 countries or a Comprehensive Economic Partnerships among ASEAN+6 countries.

In this case, an empirical studies of FTA using ADB's Computable General Equilibrium that has conducted by Plummer and Wignaraja (2007), is worth to take into consideration. In this study, they found that a large income gain in world income of \$214 billion from an ASEAN+3 FTA and an even larger gain of world income of \$260 billion from an ASEAN+6. Therefore, East Asia is suggested to aim for an ASEAN+6 FTA. However, given the differing levels of openness and market-orientation of the larger membership that may prolong negotiations and reduce the scope of FTA coverage/ liberalization, it is recommended that East Asia should follow a sequencing steps of a region-wide FTA, starting with an ASEAN+3 FTA and then move to an ASEAN+6 FTA.

Lastly, along with the effort to deepen and widen a region-wide FTA in East Asia, the region should also strengthen the existing regional financial cooperation, including policy dialogues, economic and financial surveillance, and exchange rate policy, to prevent future crisis. In this regard, the East Asian governments should able to establish en effective of regional monitoring and coordination of financial integration. Noteworthy, however, financial integration is not only a function of regulatory and supervisory convergence, but also a function of progress in overall economic integration, i.e.: goods, services, and labor, as well as monetary integration.

## Reference

- Aiginger, Karl. 2009. "The Current Economic Crisis: Causes, Cures and Consequences". *WIFO Working Papers* No. 341 (August).
- Allen, Francklin, and Elena Carletti. 2009. "The Global Financial Crisis: Causes and Consequences". Paper is presented on the Conference on: *Global Market Integration and Financial Crises*, The Hong Kong University of Science and Technology (HKUST) Business School, July 12-13, 2009.
- Altman, Roger C. (2008). "The Great Crash, 2008: Geopolitical Setbacks for the West". *Foreign Affairs* January-February 2009.
- Bustelo, Pablo. 1998. "The East Asian Financial Crises: An Analytical Survey". *Instituto Complutense de Estudios Internacionales (ICEI) Working Paper* No. 10 (October). Universidad Complutense de Madrid
- Bustelo, Pablo, Clara Garcia, and Iliana Olivie. 1999. "Global and Domestic Factors of Financial Crises in Emerging Economies: Lessons from the East Asian Episodes (1997-1999)". *Instituto Complutense de Estudios Internacionales (ICEI) Working Paper* No. 16 (November). Universidad Complutense de Madrid.
- Bustelo, Pablo. 2002. "The Impact of the Financial Crises on east Asian Regionalism". In *Regionalism in East Asia: Paradigm Shifting?*, ed. Fu-Kuo Liu and Phillipe Regnier. London: Routledge-Curzon.
- Guillen R., Arturo. (2008). "Origin and Causes of the Housing Crisis". *International Trade and Finance Association Working Papers* No.30. Universidad Autonoma Metropolitana Iztapalapa.
- IMF (2009), World Economic Outlook Database, April.
- Standard and Poors. (2008). "National Trend of Home Price Declines Continues Through the Third Quarter of 2008" *Press Realist*. New York, 25 November 2008.
- Griffith-Jones, Stephany, and Jose Antonio Ocampo. (2009). "The Financial Crisis and Its Impact on Developing Countries". *International Policy Centre for Inclusive Growth (IPC-IG)* No. 53 (April).
- Cheng, I-Hui, and Howard J. Wall. 2005. "Controlling for Heterogeneity in Gravity Models of Trade and Integration". *Federal Reserve Bank of St. Louis Review* 87 (January/February): 49-63.
- Chowdhry, Bhagwan, and Amit Goyal. 1999. "Understanding the Financial Crisis in Asia". *Pacific-Basin Finance Journal*. November.
- Corsetti, Giancarlo. 1998. "Interpreting the Asian Financial Crisis: Open Issues in Theory and Policy". *Asian Development Review* 16, No.2 : 1-45.
- Elliot, Robert J.R., and Kengo Ikemoto. 2004. "AFTA and the Asian Crisis: Help or Hindrance to ASEAN Intra-Regional Trade". *ASEAN Economic Journal* 18 (March): 1-23.
- Elmeskov, Jorgen. (2009). "The General Economic Background to the Crisis". Paper was presented at the G20 Workshop on *The Causes of the Crisis: Key Lessons*, Mumbai, 24-26 May, 2009.

- Eichengreen, Barry and Douglas A. Irwin. 1998. "The Role of History in Bilateral Trade Flows", in Jeffrey A. Franel, ed., *The Regionalization of World Economy*. University of Chicago Press: 33-57.
- Eichengreen, Barry, and Yung Chul Park. (2008). "Asia and the Decoupling Myth". *Working Paper* (May). University of California, Berkeley
- Glick, Reuven. 1998. "Thoughts on the Origins of the Asian crisis: Impulses and Propagation Mechanism". *Pacific Basin Working paper*, No 98/7. Federal Reserve Bank of San Francisco.
- Gevel, A.J.W. van de. 1998. "Diagnosis of Financial Crisis in Asia: From Miracle to Debacle". *Research Memorandum* 769. Tilburg University, Faculty of Economics and Business Administration.
- Greenspan, A. (2007). *The Age of Turbulence*. New York, The Penguin Press.
- Hill, Hall. 2000. *The Indonesian Economy*. 2<sup>nd</sup> edition, Cambridge University Press, Cambridge.
- Joosten, Wink. 2004. "The Asian Financial Crisis in Retrospect: What Happened? What Can We Conclude?" *CPB Memorandum*. Netherlands Bureau for Economic Policy Analysis.
- Karunatileka, Eshan. 1999. "The Asian Economic Crisis". *House of Commons Library. Research Paper* 99/44 (February).
- Katalina M. and Bianco, J.D. "The Subprime Lending Crisis: Causes and Effects of the Mortgage Meltdown". *CCH Mortgage Compliance Guide and Bank Digest*.
- Kawai, Masahiro. 2008. "Global Financial Crisis and Implications for ASEAN". Singapore: Institute of Southeast Asian Studies.
- Kawai, Masahiro, Richard Newfarmer, and Sergio Schmukler. 2001. "Crisis and Contagion in East Asia: Nine Lessons". *Policy Research Working Paper*. The World Bank.
- Kawai, Masahiro, and Ganeshan Wignaraja. 2009. "Asian FTAs: Trends and Challenges". *ADB Working Paper Series* 144 (August).
- Kawai, Masahiro. 2007. "Evolving Economic Architecture in East Asia". *ADB Discussion Paper* 84 (December)
- Kawai, Masahiro. 2004. "Regional Economic Integration and Cooperation in East Asia". *ADB Working Paper* (June).
- Kawai, Masahiro, and Ganeshan Wignaraja. 2008. "Regionalism as an Engine of Multilateralism: A Case for a Single East Asian FTA". *ADB Working Paper Series on Regional Economic Integration* 14 (February).
- Kawai, Masahiro. 2009. "The Impact of the Global Financial Crisis on Asia and Asia's Response." Paper presented on the AEEF Conference: *Crisis Development and Long-Term Global Responses: Insights from Asia and Europe*, 7 July 2009
- Keet, Heng Swee. (2009). "The Global Financial Crisis—Impact on Asia and Policy Challenges Ahead". Paper presented at Federal Reserve Bank of San Francisco Asia Economic Policy Conference: Asia and the Global Financial Crisis, 18-20 October 2009.

- Khor, Hoe Ee and Kee Rui Xiong. 2008. "Asia: A Perspective on the Subprime Crisis". *MPRA Paper No. 9995* (August).
- Kregel, J. (2008). "Minsky's Cushions of Safety. Systemic Risk and the Crisis in the U.S. Subprime Mortgage Market". *Public Policy Brief. No. 93*. New York, The Levy Economics Institute of Bard College.
- Lane, Timothy, Atish Ghosh, Javier Hamann, Steven Phillips, Marianne Schulze-Ghattas and Tsidi Tsikata, 1999, *IMF-Supported Programs in Indonesia, Korea and Thailand: A Preliminary Assessment*, International Monetary Fund, January.
- Lee, J.-W, and Rhee, C., 2007. "Crisis and recovery: what have we learnt from the South Korean experience?", *Asian Economic Policy Review*, 2:146–64.
- Miller, Marcus, and Pongsak Luangaram. 1998. "Financial Crisis in East Asia: Bank runs. Asset bubbles and Antidotes". *CGSR Working Paper No. 11/98*. (July).
- Miyao, Ryuzo. 2004. "Economic Fundamentals or Financial Panic? An Empirical Study on the Origins of the Asian Crisis". *Discussion Paper Series No. 151*. Research Institute for Economics and Business Administration, Kobe University.
- Moreno, Ramon, Gloria Pasadilla, and Eli Remolana. 1998. "Asia's Financial Crisis: Lessons and Policies Responses". *Federal Reserve Bank of San Francisco Working Paper PB98-02*.
- Mussa, Michael. 2009. *Global Economic Prospects as of September 2009: Onward to Global Recovery*. Paper presented at sixteenth semiannual meeting on Global Economic Prospects (September 17). Washington: Peterson Institute for International Economics.
- Naude, Wim. (2009). "The Financial Crisis of 2008 and the Developing Countries". *Discussion Paper No. 2009/1* (January). United Nations University-World Institute for Development Economic Research (UNI-WIDER).
- Plummer, Michael G. 2009. *The Global Economic Crisis and Its Implication for Asian Economic Cooperation*. Honolulu: East-West Center.
- Redelet, Steven, and Jeffery Sachs. 1998. "The Onset of East Asian Financial Crisis". *National Bureau Economic Research (NBER) Working Paper 6680*.
- Schneider, Friedrich, and Gebhard Kirchgassner. 2009. "Financial and World Economic Crisis: What Did Economists Contribute?" *Discussion Paper No.2009-14*. Department of Economics, University of St. Gallen.
- Siamwalla, A. 2005. "Anatomy of the crisis", in P.Warr (ed.) *Thailand beyond the Crisis*, Routledge Curzon, London:66–104
- Soesastro, Hadi. 2006. "Regional Integration in East Asia: Achievements and Future Prospects". *Asian Economic Policy Review* 1 (November): 215-234.
- Warr, Peter. 1999. "What happened to Thailand", *The World Economy*, 22:631–50.
- Warr, Peter. 2002. "Crisis Vulnerability", *Asian Pacific Economic Literature*, 16:36–47.