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Capital Flow, Exchange Rate and
Financial Risk Management in Asia ¹
—Roles and Issues of Intra-Regional
Financial Cooperation—

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Introduction

With the Fed rate hike and continuing low oil prices in late 2015, the slowdown of the Chinese economy has brought a drastic backslide of the world's stock markets in the opening days of 2016. The emerging countries who largely rely on the export of resources, including not only China but also Brazil, Russia, South Africa, Indonesia, and others, implemented successive policies that allowed their own currencies to be cut and devalued. Asian countries, being strongly related to the Chinese economy, were no exceptions; the Indonesian rupiah and Malaysian ringgit are both hitting lows not seen since the 1997 Asian currency crisis. In particular, since the "China shock" of August 11, 2015 when China devalued the RMB against the US dollar, the world's stock markets have been notably swayed by reports on the Chinese economy.

While Asia's emerging countries continue increasing their presence and influence in the real economy, it has been emphasized that they are predisposed to broader variation in exchange rates and stock prices yielded from the global capital flow, which set the backdrop for the global financial crisis. In the aftermath of the Asian currency crisis, the regional bilateral currency swap arrangement (the Chiang Mai Initiative or CMI) was constructed by thirteen Asian countries—the ten countries belonging to the Association of Southeast Asian Nations (ASEAN) along with Japan, China, and South Korea—as a defense against a new crisis. This arrangement considers recent international economic and financial conditions and attempts to strengthen the regional responses against potential financial crisis. Without a doubt, we need to create more practical regional economic surveillance procedures and strengthen the coordinated exchange rate policies. This paper provides an overview of changes in capital flow to Asia since the global financial crisis, analyzing the factors that influenced Asian capital flows. It also observes Japan's role in Asian financial cooperation.

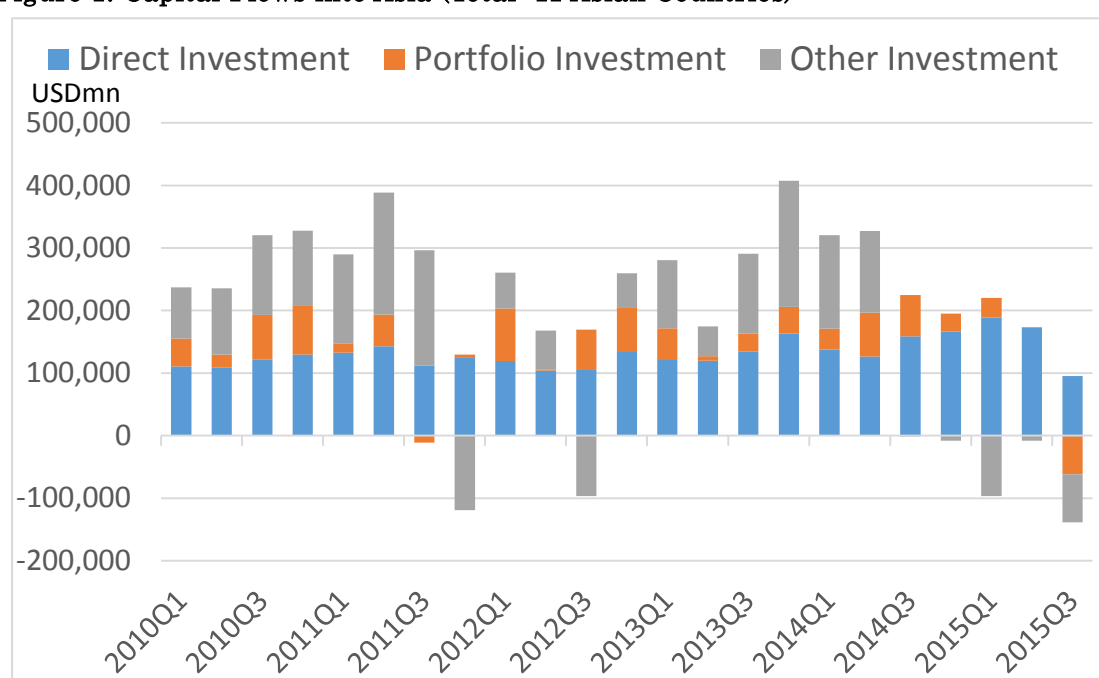
1. Changes in Capital Flow to Asia after the Global Financial Crisis

1.1 Overall Asia-wide Trends

Let us begin by observing the capital flow trends to Asia during and after 2010. Figure 1 displays the trends of capital inflows to 11 Asian

countries (China, Hong Kong, India, Indonesia, South Korea, Malaysia, the Philippines, Singapore, Taiwan, Thailand, and Vietnam) divided as per foreign direct investment (hereafter, FDI), portfolio investment (hereafter, PI), and other investment (hereafter, OI). According to the data, after 2010 as well, when the global financial crisis worsened into a simultaneous global economic downturn, direct investment capital flows persisted across Asia; however, these flows were greatly constricted in Q3 2015, after the China Shock, notably falling to their lowest levels since 2010.

Figure 1. Capital Flows into Asia (Total: 11 Asian Countries)



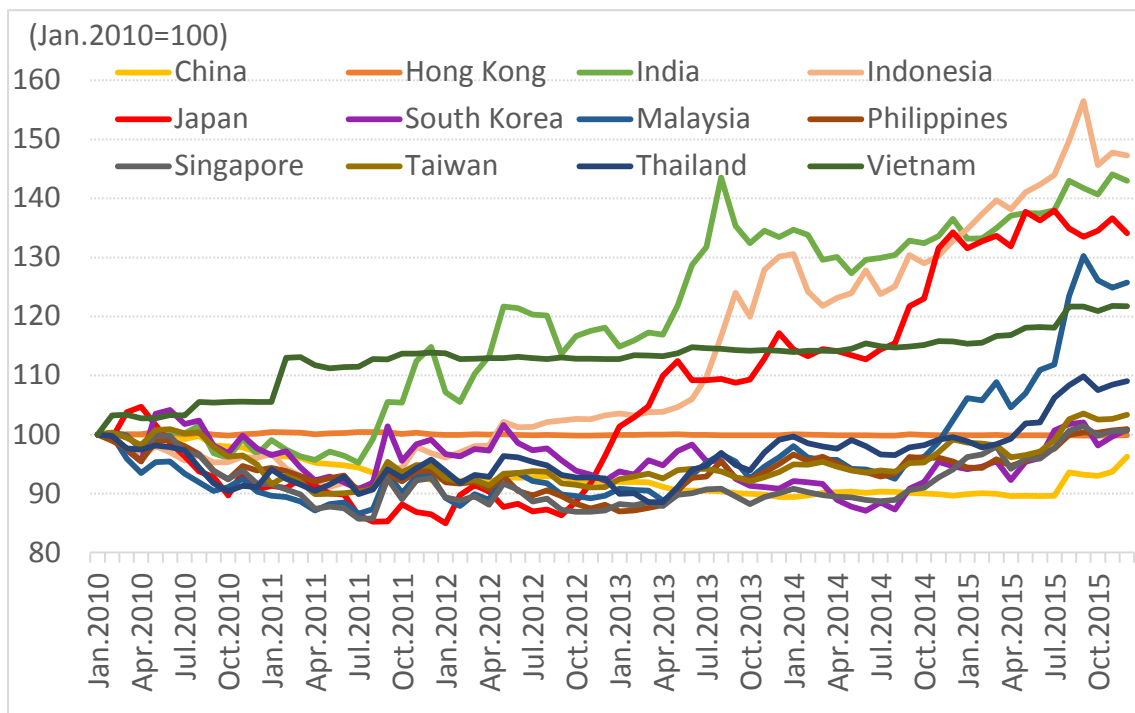
Data sources: Balance of Payment (IFS, IMF), Taiwan data from CEIC

Next, Figure 2 indicates the movements in Asian currency exchange rates versus the US dollar since 2010.

Excluding the Hong Kong dollar, which is pegged to the US dollar, we can observe volatile movement in almost all Asian currencies. Asian currencies, except the Japanese yen, comprise currencies of emerging countries. Since the global financial crisis, large amount of capital inflow has been observed in the emerging countries because of their relatively high interest rates and high growth rate than advanced countries. From January 2010 to mid-2014, currencies (excluding the Indonesian rupiah, Indian rupee, Japanese yen, and Vietnamese dong) were steadily gaining their value. However, after the Fed's quantitative easing diminished,

capital outflows began from the emerging Asian countries, and then the underlying tone for Asian currencies has been largely negative since 2015. Of particular note are the weakening trends of the Malaysian ringgit and Indonesian rupiah.

Figure 2. Asian Currencies vs. USD (Jan.2010 = 100)



Data source: IFS (IMF), Taiwan data from CEIC

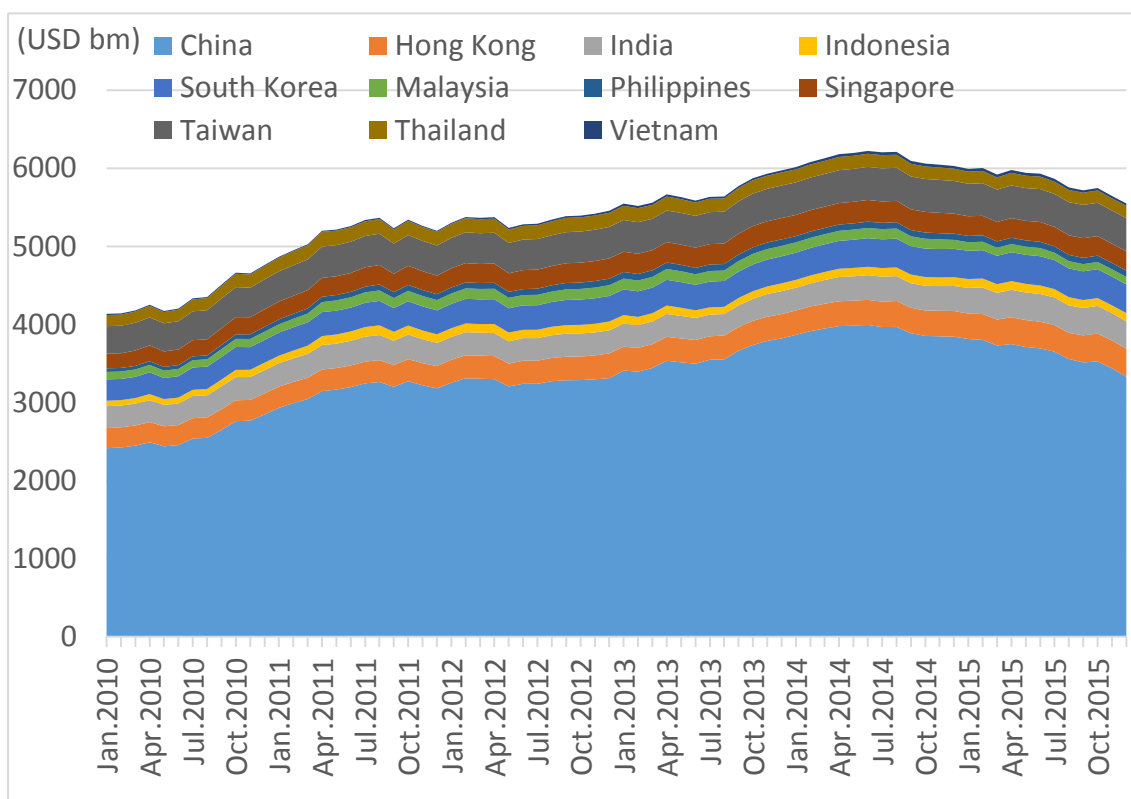
Although FDI remained stable and continued flowing into Asia despite worsening international financial market conditions, observing the capital flow into Asia versus the movements of the VIX index, frequently used to express degrees of risk aversion in financial markets, allows us to understand that an increase in financial markets' risk aversion results in capital outflows from Asia particularly in PI and OI. During crises, these capital outflows drive a selloff of Asian currencies and purchase of the yen as a safe haven currency, often skewing the exchange rates between the yen and other Asian currencies versus the dollar.

Of all the Asian currencies, the Chinese renminbi (RMB) was the strongest at the close of 2015; it had appreciated approximately 50% against the Japanese yen (which had depreciated almost 50% against the US dollar since the end of 2012). However, this trend of a stronger RMB versus a weaker yen reversed at the end of 2015, and the yen began

(and continues) gaining value. Therefore, over a six-year period, exchange rates between the Asian currencies have changed significantly.

Figure 3 demonstrates the amount of foreign reserves held by Asian countries since 2010. According to this data, Asian countries' foreign reserves peaked in October of 2014, consequently trending downward. This coincides with the downward shift of the exchange rates for Asian currencies against the US dollar and we can easily guess that Asian central banks have conducted the foreign exchange intervention to support their currencies. Nonetheless, if we compare the amount of foreign reserves between January 2011 and the end of 2015, the foreign reserve levels of all countries, except Malaysia, were still at their highest; these countries were not worried about a sudden fall of their currencies against the US dollar. However, for Malaysian ringgit, which had devalued more than 40% since 2014, it was perilous to consider a reduction in foreign exchange reserves.

Figure 3. Asian Countries' Foreign Reserves



Data source: IFS (IMF), Taiwan data from CEIC

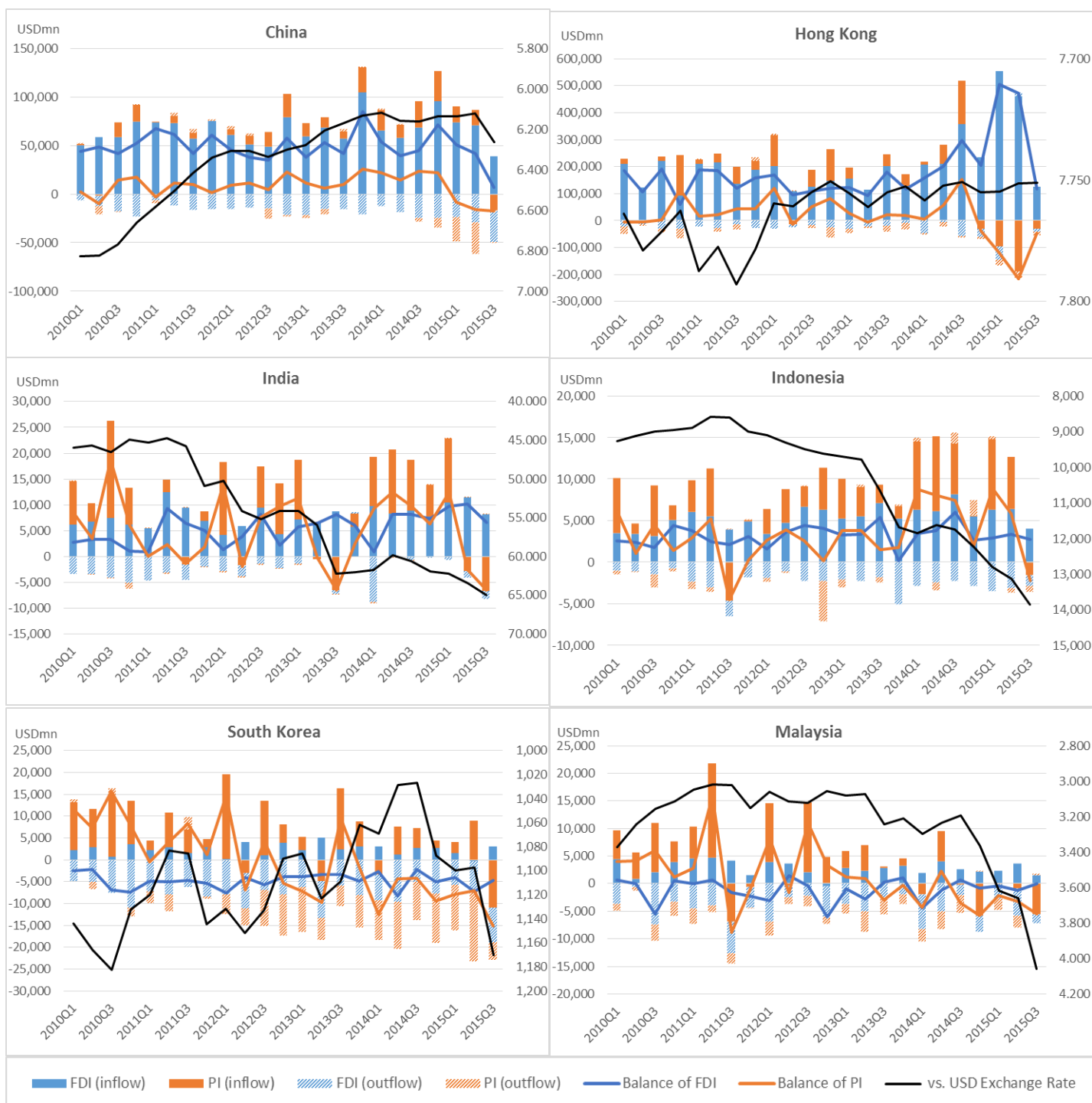
1.2 Trends in Capital Accounts per Country

A bidirectional relationship exists whereby movement in Asian

currencies not only greatly influences capital inflows and outflows for the particular countries, but expectations toward future h values for these currencies also influence capital flows. Considering this, let us examine the capital inflows and outflows per country (Fig. 4a and 4b). The figure demonstrates that, with the exception of Hong Kong, whose currency is pegged to the dollar, almost all countries have a strong positive correlation between their exchange rates against the US dollar (right axis: downward motion indicates that the country's currency depreciation) and losses in capital accounts. In China, the direct investment that had been steadily coming in was halved in Q3 2015 in comparison with the previous quarter, after the China Shock of August 2015. In contrast, stepwise regulatory easing in cross-border securities investments (QDII, or Qualified Domestic Institutional Investor) led to the foreign securities investments ever made in 2014, and the balance of PI crossed into the red. In Hong Kong, although FDI and PI trended fundamentally positive up to mid-2014, a blunted Chinese economy and expectations of RMB depreciation decreased foreign investors' demands for Hong Kong assets; fears about a fall in the HKD and capital outflows from that market began to increase. Since 2015, withdrawals occurred in PI and dramatic reductions in FDI inflows were occurred in Q3.

In India, where markets enjoy a relatively positive economic environment, FDI continues to pour in, and although stable capital inflows existed through stock investment, a portion of securities investments turned from inflow to outflow in Q2 2015. Foreign investment by domestic investors is not yet widespread in India. In Indonesia, although FDI inflows continued (albeit weakly) and PI continued to flow into the stock and equity markets, this phenomenon lasted only until Q3 2015, when the inflow turned into a slight outflow. In South Korea, while there is a constantly positive current account balance, this is in contrast to FDI, PI, and capital accounts which are all trending in the red. The withdrawal in incoming securities investments in Q3 2015 due to the expectation of the Fed tightening is of particular significance. In Malaysia, capital inflows from FDI were already stagnant by 2010 and the balance of FDI was in the red. This occurred amid a backdrop of rapid growth of overseas investment by domestic firms and major banks in recent years. Furthermore, a withdrawal of capital flow into PI coincided with newly-sparked overseas investment by domestic institutional investors, and capital outflows increased.

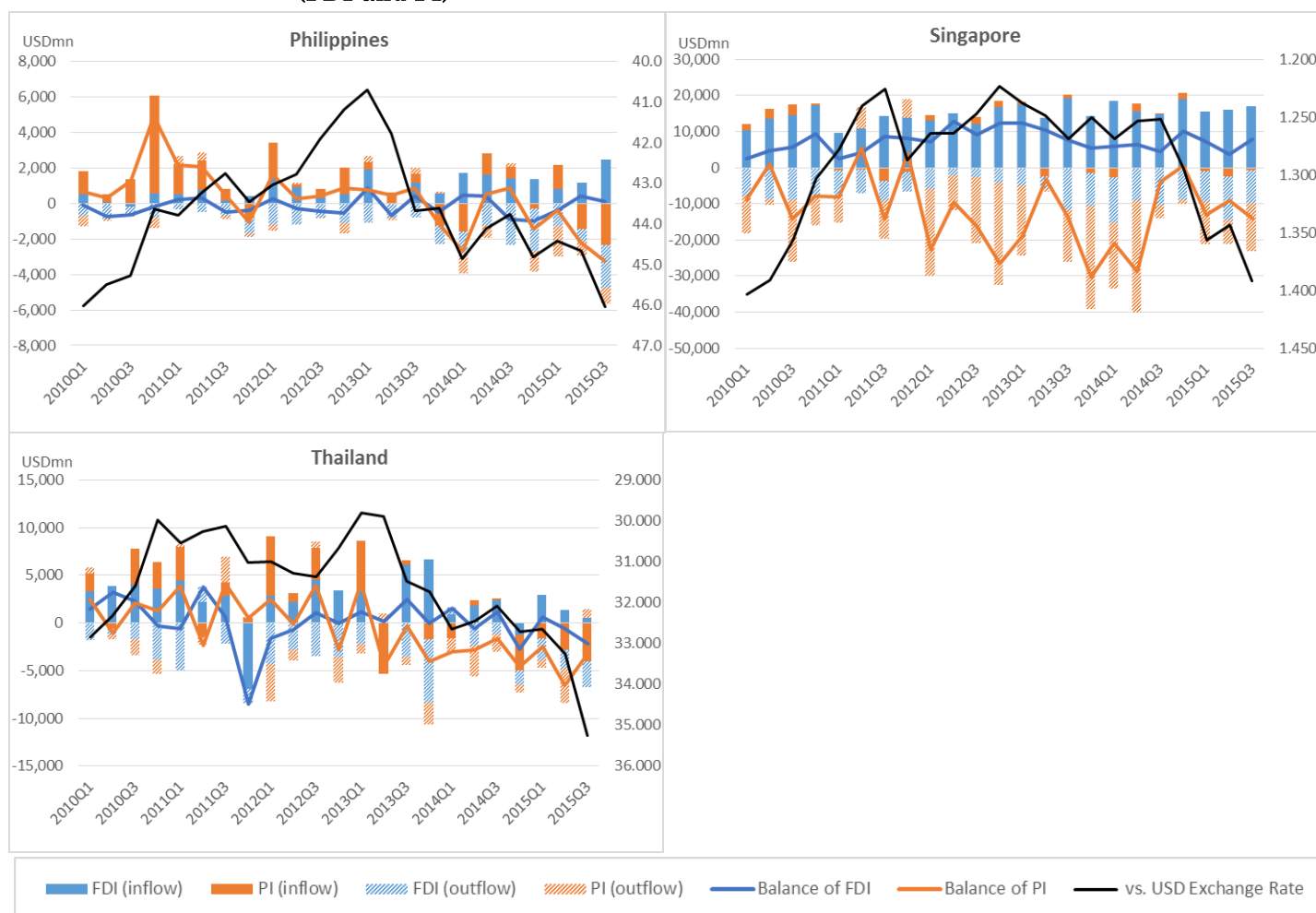
Figure4-a. The Exchange Rates (vs. USD) and Capital Flows in Asian Countries (FDI and PI)



Data source: IFS (IMF)

The local currencies vs. the US dollar exchange rate (quarterly average) takes the right axis. As it goes down, representing currency depreciation.

Figure4-b. The Exchange Rates (vs. USD) and Capital Flows in Asian Countries (FDI and PI)



Data source: IFS (IMF)

The local currencies vs. the US dollar exchange rate (quarterly average) takes the right axis. As it goes down, representing currency depreciation.

In the Philippines, capital inflows are relatively low compared with their Asian neighbors. Even as net PI fell into the red in 2015, the negative balance's relative insignificance meant that currency risk sensitivity was low and now remains stable. In Thailand, inflows from FDI declined in and after 2014 and increasing foreign investment from domestic firms turned the net FDI negative. Further, in August 2015, as foreign securities investments from domestic investors expanded after the Bank of Thailand' announcement of easing restrictions on overseas security investment by individual investors, net PI turned negative and the net negative PI balance continues to expand. In Singapore, the volume of PI are significant and the balance of PI is holding in the red,

supported by a constantly positive current account balance; however, FDI inflows are trending firmly, and the net FDI continues to stay in the black.

Since 2015, when expectations of a Fed rate hike intensified, exchange rates against the US dollar fell; FDI and PI flowed out of some countries, turning their capital accounts to red. There are various factors behind these capital outflows; for countries such as Hong Kong, South Korea, and Malaysia, the increase in capital that had once flowed into the country is more striking, whereas in countries such as China and Thailand, rapid growth in foreign investment by domestic investors was observed. These different manifestations were not only caused by the variations in political environments and exchange rate regimes/capital control and regulations, but also by discrepancies in the influence of the Chinese slowdown and plummeting resource prices on each country's economic situation. This suggests that economic monitoring in Asia is becoming increasingly critical.

2. What Influences Capital Flow and Exchange Rates in Emerging Asian Countries?

2.1 A Factor Analysis of Capital Flow for Emerging Countries

The factor analysis that answers the question of what kind of factors influence capital inflows and outflows in emerging countries has always been a major issue in international finance. In the years following 1990, when capital flows were seriously deregulated on a global scale, researchers such as Calvo, Leiderman, and Reinhart (1993) and Fernandez-Arias (1996) conducted analyses on capital flows for emerging countries by splitting factors into country-specific internal pull factors and external push factors. Milesi-Ferretti and Tille (2011) indicate that during the global financial crisis, rapid changes in degrees of global risk aversion formed a “push factor shock” that erased investment positions in emerging countries, which manifested in a phenomenon of reversed capital flow. The influence exerted by a new dimension of monetary policies on capital flow in emerging countries was another external factor that garnered attention after the global financial crisis; the particular economic conditions required for each emerging country were considered critical for attracting this money generated by advanced countries from quantitative easing.

Table 1. Factor Analysis on Capital Flows for Emerging Countries, according to Koepke (2015)

Type	Driver	Portfolio Equity and Debt	Banking Flows	FDI
Push	Global risk aversion	---	---	?
	Mature economy interest rates	---	-	?
	Mature economy output growth	+	?	?
Pull	Domestic output growth	+	+++	+++
	Asset return indicators	+	+++	?
	Country risk indicators	-	---	-
---		Strong evidence for negative relationship		
-		Some evidence for negative relationship		
+++		Strong evidence for positive relationship		
+		Some evidence for positive relationship		
?		Mixed evidence, no clear relationship		

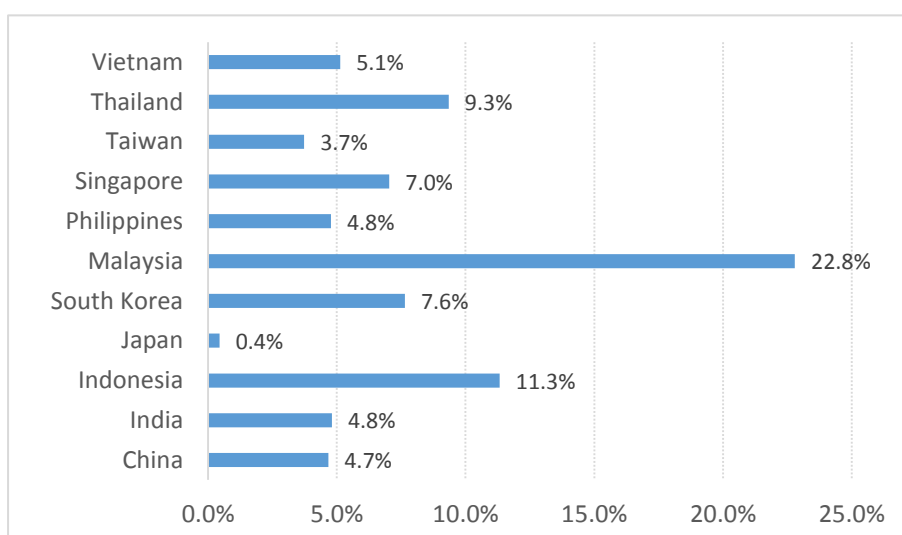
Source: Drafted from IIF Working Paper “What Drives Capital Flows to Emerging Markets?” (Koepke, 2015)

It is also necessary to recognize what factors influence what kind of capital flow. Koepke (2015) uses the results from more than 40 previous research papers to categorize capital flows and the effects of push and pull factors on each, described in Table 1. If we apply this to emerging Asian countries, then we can see that domestic production growth rates (a country-specific pull factor) consistently and positively influence FDI, the inflow of which into emerging Asian countries has firmly and optimistically trended. In contrast, external push factors are not as influential. In some countries, country risk factors, such as the political environment, serve negatively influence FDI inflow, which is consistent with the actual situation. On the other hand, push and pull factors both negatively and positively affect PI inflow, and with the Fed rate hike from the tail-end of 2015, combined with rising geopolitical risk from North Korea and Chinese economy stagnation, all these elements negatively affect PI inflow; in other words, this suggests that capital outflow will occur.

Beyond the push and pull factors described above, capital flow trends have also been majorly influenced by movements in short-term capital inflow, which rely on exchange rate expectations. For example, since the expectation of a RMB depreciation became the dominant perspective in 2015, Asian currencies have been depreciating; however, when comparing rates from January 2015, the devaluation rate against the US

dollar (as seen in Fig. 5) shows that many Asian currencies have lost ground against the US dollar larger than the RMB. For countries whose currencies have depreciated more than the RMB, it is conceivable that another recent disruptive factor in international finance, the steep decline in resource prices, is an additional factor at hand. As such, let us now consider the influences yielded by these factors on Asian currencies and verify our hypotheses by comparing a broad range of macroeconomic data.

Figure 5. Devaluation rate of Asian currencies vs. USD (%)
(Jan/1/2015 – Dec/31/2015)



Data source: Drafted by author based on Datastream's daily exchange data

2.2 Comparing Asian Countries' Macroeconomic Data

Since the Asian currency crisis, economic data of emerging Asian countries has been much more readily prepared, which is an initiative spearheaded by the IMF. At present, there is a great breadth of accessible macro data, primarily from each country's central bank and statistics bureau. In this paper, we have drafted Table 2, a comparative table based on data (expressed in dollars) from the IMF and World Bank. From this table, let us observe each Asian country's degree of reliance on the Chinese economy and fuel exports.

• Reliance on the Chinese economy

Along with its rapid economic growth from the mid-2000s, China's imports also trended upward in recent years. Therefore, the influence of China's economic slowdown would be more severe for emerging Asian

countries with a relatively high dependence on the Chinese economy. In particular, as an impact of the China shock of August 11, 2015 when People Bank of China (PBOC) devalued the RMB, many Asian currencies subsequently devalued. As such, if we calculate the scale of exports to China versus the country's GDP, we can see that even among Asian countries, a large variance in export reliance on China (ratio of exports to China vs. nominal GDP) exists.

Table 2 Macroeconomic Data for Asian Countries

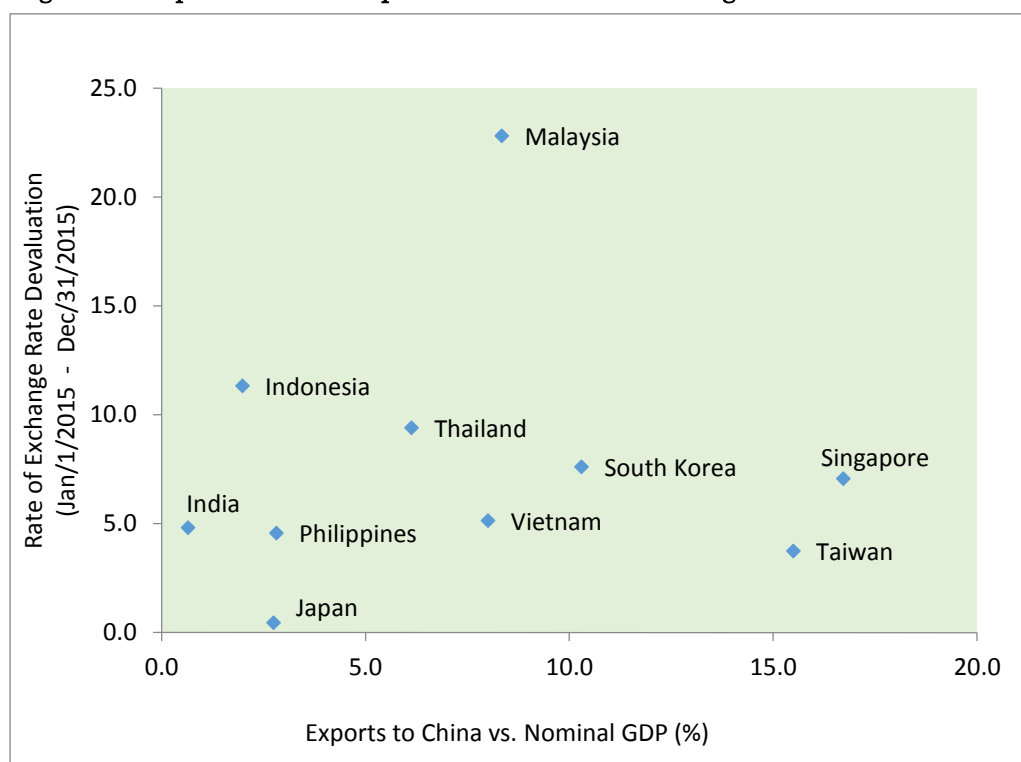
Country	Exports to China vs. nominal GDP (%)			Fuel exports vs. total exports (%)			Estimated real GDP growth rate (%)	Imports/foreign reserves (No. of months)
	2000	2005	2014	2000	2005	2013		
China	–	–	–	3.1	2.3	1.5	6.2	25.6
Hong Kong	40.6	71.8	87.8	0.5	1.5	3.1	2.9	8.0
India	0.2	0.8	0.6	3.4	10.3	20.3	7.6	10.3
Indonesia	1.7	2.3	2.0	25.4	27.6	31.6	5.7	8.3
Japan	0.6	1.7	2.7	0.4	0.8	2.3	0.7	22.5
South Korea	3.3	6.9	10.3	5.5	5.5	9.5	3.5	10.0
Malaysia	3.2	6.5	8.3	9.6	13.4	22.3	4.9	6.3
Philippines	0.8	4.0	2.8	1.3	1.9	3.9	6.5	12.9
Singapore	5.6	15.5	16.7	7.3	12.0	17.4	3.2	10.2
Thailand	2.2	4.8	6.1	3.0	4.1	6.0	3.3	9.4
Vietnam	4.6	5.6	8.0	26.5	25.8	7.3	6.1	5.1
Taiwan	1.3	11.6	15.5	–	–	–	2.2	22.3

Data source: China exports vs. nominal GDP ratio calculated by author from IFS, DOTS (IMF). Fuel exports vs. total exports from World Bank. Estimated real GDP growth excerpted from IMF World Economic Outlook, Oct 2015. Imports / foreign reserves (No. of months) calculated by author from average monthly imports in 2015 and foreign reserves as of the end of Sept. 2015 (data from IFS).

For instance, Hong Kong's 87.8% reliance on exports to China (2014 data) is the highest in contrast to India's 0.6%, which is the lowest (2014 data). In contrast to the large number of countries with increasing reliance since 2000, such as South Korea (3.3 => 6.9 => 10.3), Malaysia (3.2 => 6.5 => 8.3), Singapore (5.6 => 15.5 => 16.7), and Taiwan (1.3 => 11.6 => 15.5), other countries like India, Indonesia, and the Philippines, have declining their degrees of reliance as of 2014. Then, what sort of relation does this degree of reliance on exports to China have with the rate of lost value in the exchange markets in 2015, when the Chinese economic slowdown had become a threat to be feared? Figure 6 plots the

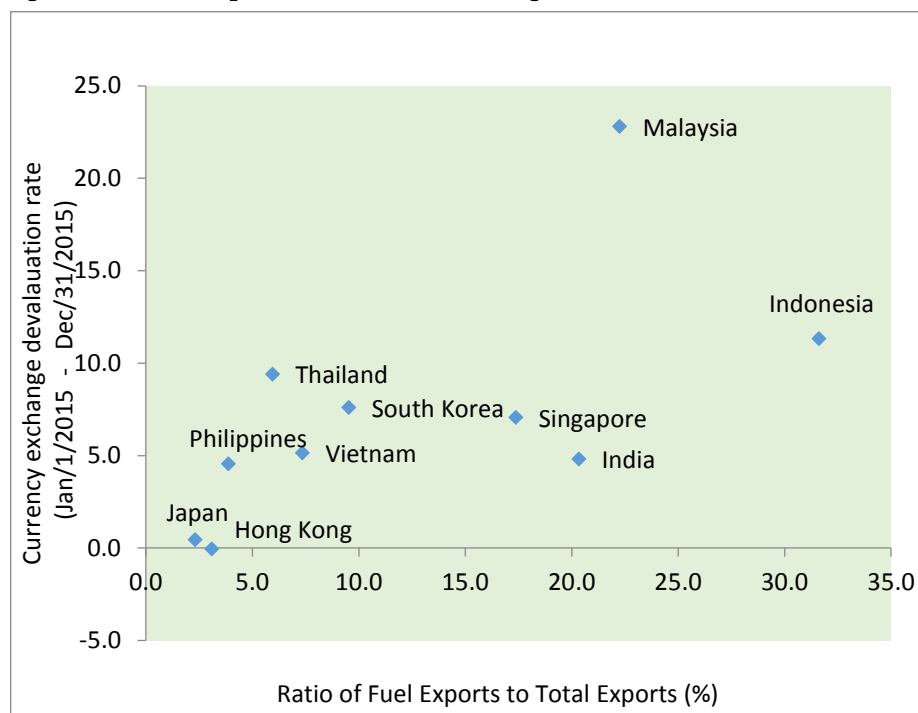
relation between these two dimensions for each country. Considering this representation, we can see that the currencies of countries having relatively low dependence on exports to China (India, Japan, the Philippines) were devalued less and even countries with high dependence on exports to China, such as Hong Kong (not represented in Figure 6), Singapore, and Taiwan, had little observable devaluation. This phenomenon is a result of Hong Kong's adoption of the Currency Board system (dollar-peg), Singapore's highly creditworthy central bank policies (the Monetary Authority of Singapore, or MAS) and its ample 10.2 months' worth of exports held in foreign reserves as of September 2015, and Taiwan's holdings of 22.3 months' worth of exports in foreign exchange reserves.

Figure 6. Dependence on Exports to China vs. Exchange Devaluation Rate



Data source: Calculated by author based on IFS, DOTS (IMF) data

Figure 7. Fuel Exports Ratio vs. Exchange Rate Devaluation Ratio



Data source: Fuel export ratio data from World Bank, exchange devaluation data calculated by author from Datastream data

• Steep Decline in Crude Oil Prices

The next disruptive factor manifesting in global financial markets in 2015 is the fall in resource prices, such as for crude oil. The fall in natural resource prices worsened the fiscal situation for countries who rely their exports on natural resources, such as Indonesia and Malaysia, sending them into a vicious cycle where their currencies were weakened. On considering Table 2, we can divide countries by their ratio of fuel exports to total exports, between countries at or above 20%, such as Indonesia, Malaysia, and India, and those below 5%, such as Hong Kong, Japan, and the Philippines. Furthermore, if we observe the x-y plot of how this relates to devaluation rates in the exchange markets in 2015 (Fig. 7), we see that the higher the relative fuel export ratio, the greater the devaluation in currency exchange markets over the span of 2015.

The Malaysian ringgit had the greatest devaluation rate in 2015 because Malaysia had both strong dependence on China's economy and a high fuel export ratio, compounded by only holding 6.3 months' worth of foreign reserves, an amount not particularly large compared with other Asian countries (Malaysia's foreign reserves were at their peak in May 2013, falling more than 30% by the end of 2015; this is ostensibly due to

large-scale currency intervention intended to soften the ringgit's devaluation). In contrast, reliance on the Chinese economy was low and foreign exchange reserves were sufficient for the Indian rupee and the Philippine peso, which were thereby comparatively spared devaluation; these countries also enjoyed strong real economic growth. The above examples suggest that the crucial surveillance method in the future will involve combining economic phenomenon serving disruptive factors in international financial markets with country-specific macro data for predicting the degree of ripple effects on each country's capital flow, exchange rates, and so on.

3. The Issues of Asian Regional Financial Cooperation

In protecting against the onset of another financial/currency crisis, Asian countries are presently part of bilateral currency swap agreements under the Chiang Mai Initiative (CMI); they are simultaneously building up foreign reserves, developing a regional financial safety net, and preparing themselves for crisis. The following will provide observations on the current state of bolstering the CMI and the issues facing it after the global financial crisis, as well as Japan's role in Asian financial cooperation.

3.1 The Chiang Mai Initiative and its Recent Progress

In May 2000, minister-level talks were conducted in Chiang Mai, Thailand, between financial officials of thirteen countries (ASEAN+3), including the 10 ASEAN countries plus Japan, China, and South Korea; these talks were intended "to build a support system between each country through mutual financial agreements." To that end, these countries reached an agreement on the CMI. As a collective financial support system, this framework seeks to maintain stability of currency and financial markets and supplement existing international funds support systems, such as IMF.

In its initial days, the CMI did not have a centralized decision-making or monitoring organization, but it gradually created a network of bilateral swap agreements (BSAs) with its total funds being worth forty billion US dollars. This system was then strengthened in various areas to reflect changes in the state of international finance after the global financial crisis. In particular, the new agreements made included

expanding the scale of available funding (from 120 billion to 240 billion dollars), five new ASEAN members joining the network, multi-lateralizing (CMIM) the decision-making and payout processes, establishing a monitoring institution, and introducing new precautionary lines.

In July 2015, revised CMIM contracts were issued, featuring functional improvements, such as a doubling of the total CMIM scale (from 120 to 240 billion dollars), introduction of crisis prevention functions, and an increase in the IMF delinked portion (the maximum percentage of total withdrawable funds that can be mobilized without using an IMF program) from 20% to 30%. These changes are expected to strengthen this regional financial safety net by allowing it to deal with latent or actual difficulties in capital accounts and short-term liquidity. The revisions comprise the following two major points: first, expanding both the funding scale and the IMF delinked portion as well as extending the funding supply maturities and maximum support periods for the CMIM Stability Facility (CMIM-SF), a crisis response mechanism; second, introducing the CMIM Precautionary Line (CMIM-PL), which serves a crisis prevention function. Whereas the CMIM-SF continues to require that countries in crisis enter into talks with the IMF, regardless of any conditional terms to receive international balance of payments support, the CMIM-PL allows for funding provisions based on ex-ante conditionality (monitoring) without rigorous ex-post conditions.

To achieve delinking from the IMF, the ASEAN+3 monetary authorities must construct a decision-making structure that activates the currency swap agreements through independent judgment rather than relying on the IMF rule. One specific policy to that end is the establishment of a mutual monitoring system, whereby countries monitor each other's economic status (regional surveillance). At present, finance ministers from the ASEAN+3 countries meet in May every year to discuss each country's economic situation, with participants from the countries' central banks also meeting twice yearly to discuss policy. Coinciding with the agreement to multi-lateralize was the agreement to establish the ASEAN+3 Macroeconomic Research Office (AMRO), an independent monitoring institution that was established in Singapore in April 2011. Along with conducting economic surveillance in the ASEAN+3 regions, AMRO also supports CMIM execution.

Among Asian countries, there are countries that have BSAs in place with China beyond the CMIM, combining this with foreign reserves held

in preparation as responses to an impending crisis. Kamio (2012) calculates that the scale of the Asian financial safety net, including the aforementioned foreign reserves, is sufficient to handle a crisis when comparing the amounts of capital outflow that occurred in the Asian currency crisis and the collapse of Lehman brothers. However, as already mentioned, the undertone of Asian currencies since 2015 has initiated reductions in foreign reserves; if capital outflows were to gain serious traction due to the Fed rate hike, it would be challenging to state that this net is rock-solid in terms of crisis response. There has been no CMIM activation as yet, but it is possible that there will be a time when it will be necessary to activate the newly introduced CMIM-PL, which allows for preventative funding supply before the occurrence of a crisis. In such an event, it may well be crucial to clarify the process of smoothly activating funds and establishing a group-based decision-making mechanism in short order.

3.2 Japan's Role in Asian Regional Financial Cooperation

The double mismatch phenomenon observed before the 1997 Asian financial crisis was one factor responsible for the dual overdependence on the dollar in both investment and trade. Ogawa and Shimizu (2005) suggested that rather than evaluating Asian currencies in comparison with the dollar, it is necessary to compare them with their regional peers to understand the movements of those currencies within Asia; therefore, they proposed a currency basket comprising Asian currencies, called the Asian Monetary Unit (AMU, see [http:// www.rieti.go.jp/users/amu/index.html](http://www.rieti.go.jp/users/amu/index.html)). Each Asian currency's movement against this basket would be published as an AMU deviation indicator (DI), keeping the index within a certain band in an attempt to maintain stability within Asian currencies. However, in the mid-2000s when the AMU DI was initially proposed, it would still be some time before China relaxed its capital regulations; therefore, it was predicted that it would likely be at least 10 years before the RMB became an international currency—Ogawa and Shimizu (2005) thought that the Japanese yen may play a stabilizing role for other Asian currencies as the only hard currency in the basket.

However, as mentioned above, the RMB sees lively trading in global offshore markets and the expectation of RMB exchange rate majorly influences capital flow in Asia and movement of Asian currencies. Coincidentally, the China Foreign Exchange Trade System (CFETS), run by the People's Bank of China, announced the CFETS RMB Index in

December 2015, which is a new RMB-based index of a currency basket comprising thirteen currencies. In future, China will increase the RMB's flexibility while adopting a managed float system with reference to the currency basket. Until now, the RMB has been quasi-pegged to the US dollar, resulting in significant linkage between other Asian currencies, which were themselves pegged to the RMB, and the US dollar; however, future RMB's shift to a currency basket system is expected to result in an Asia-wide shift to exchange policies that take advantage of the BBC (basket-band-crawling) rule, initially proposed by Williamson (2000). The Chinese RMB, a new Special Drawing Rights (SDR) basket member, moves asymmetrically to the Japanese yen as either an investment currency or a safe-haven asset in times of risk-on/risk-off; however, as each demonstrates its particular strengths and engages in mutual cooperation with the other, this could lead to an era that explores intra-regional exchange cooperation policies that could stabilize Asian currencies as a whole.

Further, as part of the ASEAN Economic Community (AEC), which began in late 2015, initiatives toward the banking sector's liberalization/integration (relaxation/harmonization of policies in each country) are being planned/executed in the interest of ASEAN financial integration. Owing to the diversity of economic development levels and industry structures between ASEAN countries, their financial sectors are also not uniform; however, they do share their presence in a region where indirect finance is critical. Though the fundamental policy in ASEAN financial integration is to target integrating ASEAN-wide financial capital markets through harmonizing regulations and pushing deregulation of domestic financial services and capital transactions, the major issue is improving infrastructure, such as financial regulatory systems. An observation of the per-region trends for foreign branches/offices of Japanese banks reveals that Asian branches accounted for more than 50% of total foreign branches by the end of FY2014; Asia is the core market for Japanese banks' overseas business. In the future, Japanese financial institutions are expected to play a significant role in supporting the construction of a financial infrastructure in Asia, providing high-quality financial services, and maintaining the region's financial safety net.

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Major Works/Publications

“On Intra-Asian Capital Flow and Selection of Trade Quotation Currencies” (Chapter 6) “Research on the International Flow of Money: Structural Issues that Begat the Global Financial Crisis” ed. Keimei Kaizuka/ Policy Research Institute, Ministry of Finance, Chuo Keizai (2012.11)

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