FINANCIAL COOPERATION IN EAST ASIA

Edited by

Tomoo Kikuchi and Masaya Sakuragawa

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Introduction

Tomoo Kikuchi and Masaya Sakuragawa

The number of emerging economies has increased dramatically in recent years. In response, the reform of institutions that have constituted the post-world economic order, such as the World Bank, the International Monetary Fund and the World Trade Organization, has been on the agenda for many years. However, the reform process has been sluggish and alternative initiatives have emerged.

One of these initiatives, China's Belt and Road Initiative (BRI), which was first unveiled by President Xi Jinping in September 2013, encompasses the Eurasian continent and Africa. The establishment of the Asian Infrastructure Investment Bank (AIIB), which has taken on the initiative of infrastructure investment in Asia that was hitherto under the sole guidance of the Asian Development Bank (ADB) in the past decades, is a challenge to the United States and Japan. There are also new mega-regional trade agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership signed by 11 countries without the United States in March 2018, the Japan-European Union Economic Partnership Agreement signed in July 2018, and the Regional Comprehensive Economic Partnership still in negotiation among ASEAN+6 countries.

In this rapidly changing external environment, ASEAN is directly influenced by increasing tensions between its top trading partners, China and the United States. Indeed, the protectionist policies of the Trump administration and the resulting trade war between the United States and China are now a major concern for the world economy. For every trade transaction there is a financial transaction. Therefore, without understanding how financial transactions are made, we will not understand the workings of the world economy. There are financial mechanisms in place that do not receive attention in normal times but are crucial when crises hit. They also ensure the smooth running of the macro-economy and facilitate trade. In the rapidly changing environment surrounding ASEAN, we think regional financial cooperation in the ASEAN+3 countries (China, Japan and South Korea) is more important than ever.

The Asian financial crisis of 1997 gave new impetus to regional financial cooperation among the ASEAN+3 countries. Since then, most ASEAN countries have come to run current account surpluses and now sit on unprecedented piles of foreign reserves. Local currency denominated bond markets have also grown significantly. The Chang Mai Initiative Multilateralisation (CMIM), a multilateral currency swap arrangement between the ASEAN+3 members, came into effect in March 2010. These developments have made the region certainly more resilient to financial crises.

However, the weak linkage between domestic saving and investment remains the fundamental macroeconomic feature of the ASEAN countries; the ASEAN countries remain reliant on foreign direct investments while their trade surpluses are invested in the US and European equity and bond markets. Notably, China and Japan have the largest foreign reserves in the world, much of them invested in US Treasury securities. Therefore, the two countries must play a key role in strengthening regional financial cooperation as the US dollar still serves as the predominant currency for trade settlement and debt issuance while also remaining the predominant currency for foreign reserves, although intra-East Asian trade has come to surpass trade with the United States.

The rest of this book consists of three parts. Part I examines the role of financial markets in East Asia. Tiwari (Chapter 2) reviews the current state of the world economy. Kawai (Chapter 3) reviews the development of bond markets in Asia and recommends how the region can cooperate further. Mieno (Chapter 4) identifies missing links in the regional financial system and suggests ways to strengthen them. Lee (Chapter 5) examines the current state of foreign direct investment in ASEAN, which is heavily skewed towards the financial sector in Singapore. Tobe (Chapter 6) examines the relationship between economic growth and capital inflows in 30 Asian countries.

Part II reviews the development of financial cooperation in East Asia. Rana (Chapter 8) examines the current state of regional financial cooperation among the ASEAN+3 countries. Pitakdumrongkit (Chapter 9) investigates how the CMIM can be strengthened by the leadership of its member countries. Khor (Chapter 10) highlights the policy challenges faced by the

ASEAN+3 Macroeconomic Research Office, which is the regional macroeconomic surveillance unit of the CMIM.

Part III discusses the development of financial infrastructure in East Asia. Sato (Chapter 12) reviews the state of trade invoicing in ASEAN and suggests ways to promote local currency usage. Kaji (Chapter 13) examines the regulatory challenges posed by electronic currencies, whose usage is expanding in the region. Berger (Chapter 14) gives an overview of the competition in the export of infrastructure between China and Japan to ASEAN and suggests how ASEAN can benefit from it. Kimura (Chapter 15) explains the importance and implications of the e-commerce clause in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the successor to the planned Trans-Pacific Partnership. We (Chapter 17) conclude the book by highlighting policy recommendations from the chapters.

This book is the outcome of a two-year collaboration between the Centre on Asia and Globalisation at the Lee Kuan Yew School of Public Policy, National University of Singapore, and the Keio Global Research Institute at Keio University, Japan. Under the title of "The Asian Century and China-Japan Cooperation", the two institutes organised two workshops in 2017 and 2018. The first workshop was held in Tokyo on 16–17 January 2017. The proceedings of the workshop, titled "China and Japan in the Global Economy", were published under the Routledge Studies in the Modern World Economy series. That volume focused on China, Japan, and their role in Asia. This book constitutes the proceedings of the second workshop, held in Singapore on 5–6 March 2018.

This edited volume is unique in that the chapter authors were members of the two-year project and there is continuity and accumulated knowledge. Many of the authors have contributed to both volumes.

In addition to ASEAN being the focus of this volume, we wanted to make this volume more relevant for policy-making, and therefore most chapters end with policy recommendations. Lastly, this volume includes a question-and-answer section after each chapter, which reflects the lively discussions during the workshop. We hope that readers will benefit from our candid and insightful interactions on issues that matter in their efforts to build a peaceful and prosperous region.

We would like to acknowledge the generous funding support for this project from the Japan Society for Promotion of Sciences and the National University of Singapore. We would also like to thank Serene Teang, Esther Yeoh, Sachiko Nakanishi, Tomoko Furuya, Wang Zi, and Khasan Redjaboev, without whom the project would not have been possible.

Part I

The Role of Financial Markets

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The Asian Century and Policy Challenges

Keynote Speech by Dr Siddharth Tiwari

Distinguished Visiting Fellow

Lee Kuan Yew School of Public Policy

National University of Singapore

This paper is organised in three parts: (A) reviewing 2017, which was a turn-around year; (B) looking at whether the turn-around in growth will continue for 2018-2019; and (C) providing an overview of key issues and risks.

(A) GROWTH ACCELERATED IN 2017

Global growth picked up from 3.2 per cent in 2016 to 3.7 per cent in 2017. Growth was broad based across the advanced economies as well as emerging markets and developing countries. It accelerated in about three quarters of the countries, the highest share since 2017. Some countries that had high unemployment, such as those in the Euro area, participated in the growth surge and experienced strong employment growth. Some of the larger emerging market economies, such as Argentina, Brazil, and Russia, exited their recessions. However, the fuel exporters and low-income countries suffering from civil strife or natural disaster were the hardest hit.

Geopolitical risks, such as trade tensions, North Korea, hard Brexit, and fragmentation in Europe, did not materialise in 2017. I say this with full recognition of the impact of elections in the United States, Germany, and Turkey. In China, President Xi Jinping consolidated his influence further and picked up the mantle of globalisation.

The post-war consensus (and ideological coherence) was fractured in 2017. Western ideas of democracy and liberal global markets have lost prestige and appeal, even in high-income countries. At the same time, managing the world economy and especially the global commons (notably climate) and security issues demands cooperation between the East and West.

Global trade rebounded from its slowest pace since 2001. Global trade volume rose from 2.4 per cent in 2016 to approximately 4.2 per cent in

2017. This sharp increase was witnessed in the advanced economies (from 2.8 per cent in 2016 to 4.1 per cent in 2017) as well in emerging markets (rising from 2.1 per cent in 2016 to 5.2 per cent in 2017). Trade growth was supported by a significant recovery in investment.

Asset markets continued to rally as central banks maintained accommodative monetary policy amid weak inflation. Stock markets across the globe saw significant increase in 2017. In the United States, the S&P grew by 19 per cent; in Japan the Nikkei 225 by 19 per cent; and, in Europe the S&P 350 by 11 per cent.

In 2017, equity valuations continued their ascent and were near record highs. This is part of a broader trend across global financial markets, where low interest rates, an improved economic outlook, and increased risk appetite boosted asset prices and suppressed volatility (as measured by the Chicago Board Options Exchange's Volatility Index — VIX). While easier financial conditions bolstered the growth momentum, they also pose a risk if the search for yield extends too far.

Wage growth and inflation remained subdued amid falling labour share and rising income inequality. The labour share of income has declined globally: in the United States from 65 per cent in the 1980s to 60 per cent in 2015; in Japan from 62 per cent in the 1980s to 58 per cent in 2015; and, in Germany from 67 per cent to 60 per cent over the same period of time. In China, the share fell from 45 per cent in 1995 to 37 per cent in 2010.

Wage growth has remained puzzlingly tepid in the advanced economies despite falling unemployment rates. The continued slack in labour markets — in the form of high unemployment in some countries or high levels of involuntary part time unemployment — along with weak productivity growth explains much of the sluggishness.

(B) OUTLOOK FOR 2018–2019

Global growth forecast for 2018 and 2019 have been revised upwards, reflecting the growth momentum and recently approved US tax policy changes. (See Tables 1a and 1b.)

TABLE 1A
Global growth forecast

	World	AEs	EMDCs	USA	Euro Area	China	Japan	UK	SSA
2017	3.7	2.3	4.7	2.3	2.4	6.8	1.8	1.7	2.7
2018	3.9 (0.2)	2.3 (0.3)	4.9 (0.0)	2.7 (0.4)	2.2 (0.3)	6.6 (0.1)	1.2 (0.5)	1.5 (0.0)	3.3 (-0.1)
2019	3.9 (0.2)	2.2 (0.4)	5.0 (0.0)	2.6 (0.4)	2.0 (0.3)	6.4 (0.1)	0.9 (0.1)	1.5 (-0.1)	3.5 (0.1)

AEs — Advanced Economies; EMDCs — Emerging Markets, Developing Countries; SSA — Sub-Saharan Africa

TABLE 1B
Growth forecast for Asia

	World	Asia	China	Japan	India	Korea	Australia & New Zealand	ASEAN
2017	3.7	5.7	6.8	1.8	6.7	3.2	2.4	5.2
2018	3.9 (0.2)	5.6 (0.1)	6.6 (0.1)	1.2 (0.5)	7.4 (0.0)	3.0 (0.0)	2.9 (0.0)	5.3 (0.1)
2019	3.9 (0.2)	5.6 (0.1)	6.4 (0.1)	0.9 (0.1)	7.2 (0.0)	2.9 (0.0)	3.0 (0.1)	5.3 (0.0)

Source: International Monetary Fund, World Economic Outlook

(C) KEY RISKS

Recovery and tax reform in the United States

The US economy is on a robust recovery path. Q4 GDP growth was in line with expectations (2.6 per cent), reflecting strong consumption and investment. The US headline Personal Consumption Expenditure (PCE) ticked down (1.7 per cent) on the back of a partial reversal in energy prices from their recent highs but core PCE remained steady at 1.5 per cent in December, and wage growth picked up in January. Non-farm payroll employment increased by 200,000 in January and the unemployment rate remained at 4.1 per cent. Hourly earnings picked up further in January (+0.3 per cent month on month and +2.9 per cent year on year basis) for the third consecutive month — a sign of long anticipated growth in wages.

Tax policy changes will further stimulate activity in the near term. Changes in the corporate income tax will have the main effect, with the statutory rate declining from 35 per cent to 21 per cent; the full expensing of capital investment; interest deduction cap of 30 per cent; and a shift to a territorial system.

However, there are large uncertainties, including overheating risk at this upcycle; unsustainable debt dynamics; impact of investment expensing; faster pace of the US Federal Reserve's macroeconomic policy normalisation and US dollar appreciation; less spending on infrastructure; worsening global imbalances; and, national actions that are potentially inconsistent with the World Trade Organisation (WTO).

China's soft landing and the new economy

China's growth remains robust and its trend growth will continue to slow but at a very high pace. Strong growth has been driven by credit expansion — with total domestic credit growing by 67 per cent over 2011–2016. This credit boom will need to be deflated safely. At the same time, China's new (digital) economy is growing very rapidly and becoming a new engine of long-term growth.

US monetary policy normalisation

The US Federal Reserve continues its process of policy normalisation, including a reduction in its balance sheet. Significant reductions in the US Federal Reserve's assets were targeted by the end of 2018. Thus far, cross-border capital flows to emerging markets have remained orderly. Total portfolio flows to emerging markets increased from $100 billion in 2016 to $235 billion in 2017. Balance sheet reductions may increase term premiums more than anticipated, leading to flow reversals.

Sustainability of global trade recovery

World trade grew strongly in recent periods, supported by a pick-up in investment, particularly among the advanced economies. Manufacturing output in Asia grew with the launch of new smart phone models, but the tech cycle may have peaked.

Geopolitical risks could intensify in 2018 along the following areas:

1. Intensification of trade tensions between China and the United States with tariffs and talks of trade war.

2. Risks associated with North Korea and its nuclear program.
3. Threats to the stability of the Middle East. Active warfare in Syria involving multiple participants, all-out civil war with foreign intervention in Yemen, the nuclear program of Iran and the fate of the Joint Comprehensive Plan of Action, political instability and anti-Kurdish insurgency in Turkey, Israel-Palestine relations, and the blockade of Qatar are just a few examples of evolving risks.
4. Brexit negotiations: hard Brexit talks over soft Brexit perspectives.
5. European elections and the rise of populism and populist policies in Europe.

Asian Bond Market Development

Masahiro Kawai[1]

1. NEED FOR LOCAL CURRENCY BOND MARKETS IN ASIA

It was the 1997–98 Asian financial crisis which made the region's policymakers and market participants fully acknowledge the importance of developing local currency (LCY) bond markets. Previously, emerging Asian economies had depended on domestic bank loans and foreign currency-denominated short-term loans to fund long-term domestic investment, with the latter leading to a double mismatch problem (i.e., currency and maturity mismatches). Consequently, once foreign currency loans were not rolled over, the value of Asian currencies started to decline sharply, posing a serious challenge to business activity and the financial systems of these economies. What made matters worse was that these Asian economies lacked solid frameworks for the supervision and regulation of their banking systems, and their bank balance-sheets were fragile due to their unsound lending practices.

It was against this backdrop that policymakers and market participants came to recognise the need to create more balanced financial systems by developing and deepening the market for LCY-denominated long-term bonds, thereby channelling massive Asian savings into long-term investment in local currencies. It was believed that the expansion of LCY bond markets would help remedy their financial systems' excessive reliance on domestic banks and foreign-currency short-term loans and thus reduce the double mismatch problem. Having the two wheels of the financial market (i.e., the banking sector and the LCY bond market), emerging Asian economies would become more resilient to external or home-grown shocks.

1 The author thanks the Japan Society for the Promotion of Science (JSPS) for financial support through JSPS KAKENHI Grant Number 16K03733.

There are five other reasons why the development of LCY bond markets has been considered a priority in many Asian economies in recent years. First, the dynamic economic growth that has been observed in emerging Asia (such as China, India, and the ASEAN member states) is expected to create increasingly large funding needs for private-sector fixed investment, thereby calling for the role played by the bond market.

Second, with the rising demand for investment in infrastructure facilities (such as transport, energy, and information and communication technology), the bond market is expected to play a significant role in raising long-term funds throughout the region.

Third, multinational corporations setting up factories and offices in emerging Asia have considerable needs in the securing of funds in local currencies for their operations (such as payment of wages and purchases of local inputs) through the LCY bond market.

Fourth, the rapid rise of the middle class and the wealthy in emerging Asia naturally requires expanding the opportunities for wealth accumulation and diversification, which can be filled by the LCY bond market as an arena for relatively secure long-term investment.

Fifth, long-term bonds would also provide pension funds, insurance institutions and other institutional investors with important asset investment opportunities in countries which have been developing national social security systems and/or are facing the prospect of a rapid aging of their populations.

The structure of domestic financing by ASEAN+3 firms, summarised in Table 1 below, shows that the banking sector and the stock market are the dominant sources of domestic financing for private firms. Domestic private-debt securities such as LCY bonds are the least used instruments for fund-raising, and this is particularly the case for firms in the BCLMV countries (Brunei Darussalam, Cambodia, Lao PDR, Myanmar and Vietnam). Even in countries like the Philippines and Indonesia, the role of domestic private-debt securities remains limited.

TABLE 1
Structure of domestic financing by ASEAN+3 firms

	Private credit by deposit- taking banks and other financial institutions (% of GDP)				Outstanding domestic private-debt securities (% of GDP)				Stock market capitalisation (% of GDP)			
	1990	2000	2010	2015	1990	2000	2010	2015	1990	2000	2010	2015
China	75.9	107.4	119.7	140.4	3.3	7.7	33.9	46.6	2.4*	38.1	63.8	64.1
Hong Kong	153.2	148.1	163.9	212.2	0.2	17.1	14.3	--	105.4	356.6	1,086.3	1,029.1
Japan	167.6	186.5	174.8	175.6	38.5	48.9	77.6	62.8	113.3	80.4	64.6	99.8
Korea, Rep. of	50.3	75.1	91.4	136.6	27.9	50.7	64.8	67.3	43.8	44.1	92.3	85.9
Brunei Darussalam	--	66.6	41.0	40.5	--	--	--	--	--	--	--	--
Cambodia	--	5.9	25.0	56.5	--	--	--	--	--	--	--	--
Indonesia	38.0	17.7	24.7	36.0	--	3.6	4.5	3.1	4.4	26.5	39.9	42.0
Lao PDR	0.5	6.7	18.9	--	--	--	--	--	--	--	--	--
Malaysia	76.9	122.8	101.7	119.6	18.2	32.8	60.0	46.2	99.1	134.6	141.8	129.0
Myanmar	3.3	8.2	--	--	--	--	--	--	--	--	--	--
Philippines	19.4	39.9	27.8	39.5	--	0.2	1.1	0.2	18.9	39.1	62.1	84.5
Singapore	86.2	103.2	93.4	131.0	16.0	16.5	11.6	--	98.7	179.1	246.1	227.7
Thailand	72.3	116.6	114.6	147.1	0.2	0.0	53.9	42.9	25.8	33.0	69.1	95.9
Vietnam	13.7*	30.3	100.0	102.8	--	--	--	--	--	--	23.4	24.9

Note: Data marked with asterisks (*) for China and Vietnam are for 1992.
Source: Constructed by author using data from The World Bank Group, Global Financial Development database.

2. DEVELOPMENT AND DEEPENING OF THE ASIAN BOND MARKET

Steady progress has been achieved in the development and deepening of LCY bond markets in East Asia. This effort has been supported by both the Asian Bond Markets Initiative (ABMI) led by the ASEAN+3 finance ministers and central bank governors, and the Asian Bond Fund (ABF) project undertaken by the Executives' Meeting of the East Asia Pacific Central Banks (EMEAP), an organisation made up of 11 central banks in East Asia and the

Pacific.[2] The promotion of LCY bond markets has attracted strong interest from participants in the Asia-Pacific Economic Cooperation (APEC) Finance Ministers Meeting and in the Group of Twenty (G20) process.

2.1 LCY bond market size

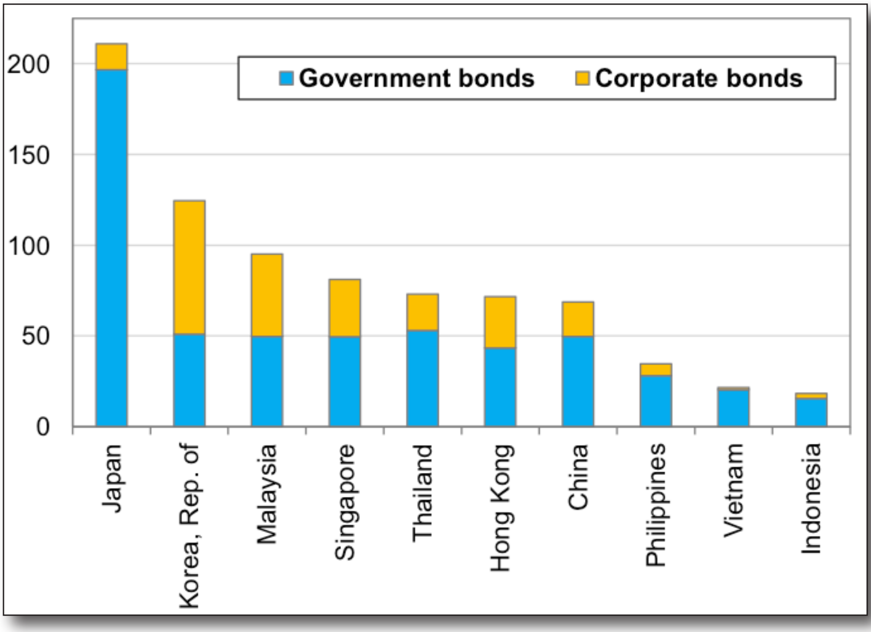
Asian LCY bond markets — both sovereign and corporate bond markets — have steadily expanded and deepened since the Asian financial crisis across several ASEAN+3 countries, including Hong Kong. The exceptions are the BCLM (Brunei Darussalam, Cambodia, Laos, and Myanmar) bond markets, where markets either do not exist or are in the early stages of development.

The total outstanding size of LCY bond markets in nine emerging ASEAN+3 countries (China, Hong Kong, Indonesia, Republic of Korea [ROK], Malaysia, the Philippines, Singapore, Thailand, and Vietnam) was US$12,281 billion at the end of 2017. Of this total, the sizes of sovereign and corporate bonds were US$8,175 billion and US$4,106 billion, respectively, implying that sovereign bonds accounted for two thirds of the total. China's market was the largest, at US$8,739 billion (71 per cent of the total), followed by the ROK (US$2,020 billion; 16 per cent), Thailand (US$346 billion; 2.8 per cent), and Malaysia (US$318 billion; 2.6 per cent). Vietnam's market was the smallest, at US$48 billion.

As a ratio of GDP, the total size of the nine economies' bond markets was 71 per cent of their GDP. As Figure 1 indicates, the ROK has the most developed bond market (125 per cent of GDP), followed by Malaysia (95 per cent), Singapore (81 per cent), Thailand (73 per cent), and Hong Kong (72 per cent). The smallest bond markets as a ratio of GDP are those in Indonesia (18 per cent), Vietnam (22 per cent) and the Philippines (35 per cent). Bond markets in the ROK and Malaysia are developed because their corporate bond markets are also well developed, at 74 per cent and 45 per cent of GDP, respectively. In contrast, corporate bond markets in Vietnam (1 per cent), Indonesia (3 per cent) and the Philippines (6 per cent) are the least developed. Although not reported here, the size of bond markets in the BCLM countries is much smaller or virtually zero, both in absolute terms and as a ratio of GDP.

2 These are the central banks of Australia, China, Hong Kong, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, and Thailand.

FIGURE 1
Size of emerging East Asia's LCY bond markets (% of GDP), Dec 2017



Note: Figures are the sum of government bonds and corporate bonds, as a ratio of GDP.
Source: Constructed by author using data from Asian Development Bank, *Asian Bonds Online*

One notable development is that in all economies with functioning sovereign bond markets, including Indonesia, the Philippines and Vietnam, stable yield curves have been formed for LCY government bonds. These yield curves are typically upward sloping, reflecting the fact that market participants have taken risk premiums into account in bond pricing or interest rate determination.

2.2 Market liquidity

Market liquidity, i.e., the degree to which bonds can be quickly bought or sold in the market without affecting their price, can be measured in several ways, such as by the turnover ratio, yield volatility, and bid-ask spreads. First, the turnover ratio is the value of bond trading in the secondary market relative to the average amount of bonds outstanding during a period. The higher the turnover ratio, the more active and thus liquid the secondary market. In the emerging ASEAN+3 economies for which data are available, there is no sign of a rise in the turnover ratio over time, although the ratio is typically higher for government bonds than for corporate bonds, suggesting that the government bond market is usually more liquid than the corporate bond market.

Second, yield volatility is the standard deviation of daily yield changes over the previous 21 trading days (a proxy for calendar month). Daily yield changes are computed from the previous closing bid yields of LCY benchmark 10-year government bonds. High yield volatility suggests less predictability of the daily movements in bond yields, while low volatility implies that yields are relatively stable at around the average yields and thus the market is relatively liquid.

Malaysia and China have had the smallest yield volatility, while the Philippines and Indonesia have had the largest volatility in recent years. However, there is no clear declining trend in yield volatility over time. In Thailand and Vietnam yield volatility has declined recently, but in the Philippines it has risen as a trend.

Third, bid-ask spreads represent the difference between the highest price that a buyer is willing to pay for a security (bid) and the lowest price at which a seller is willing to sell (ask). Small bid-ask spreads suggest that the bond market is highly liquid, and large spreads suggest low liquidity. The ROK and China have the smallest bid-ask spreads while Hong Kong and Vietnam have the largest spreads among the economies. Most of the economies other than Hong Kong have seen declining bid-ask spreads.

Thus, there is no clear trend toward greater market liquidity over the last 20 years or so, but the government bond markets tend to be more liquid than the corporate bond markets.

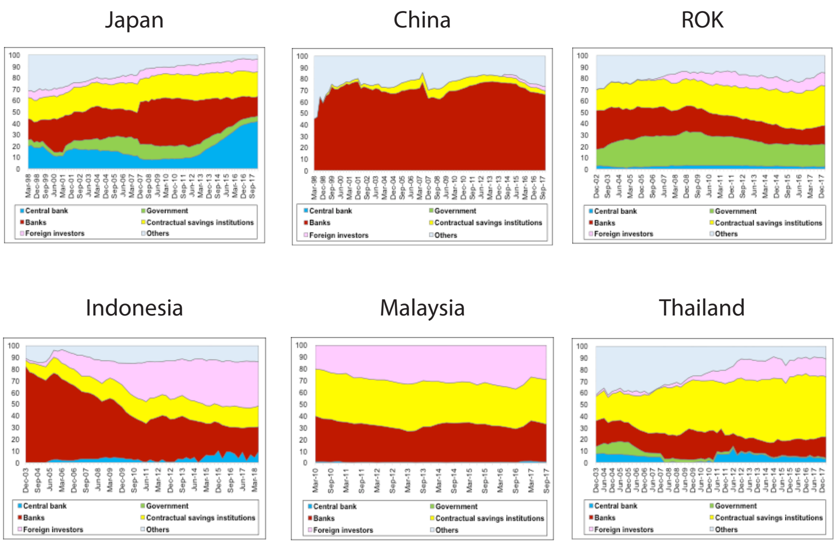
2.3 Investor profile for LCY government bonds

Investor profile is important in judging the degree of market liquidity as the diversity of investors suggests the presence of different portfolio strategies and views across market participants and thus contributes to more frequent trading of bonds than otherwise. The information on the investor profiles for LCY government bonds depicted in Figure 2 shows that in most markets investors have been increasingly diversified over time.

For example, in Indonesia, the ROK, and Thailand, the role of commercial banks as bond investors has diminished over time and the role of contractual savings institutions (such as pension funds and life insurance companies) has become more prominent in recent years. Indonesia has indeed seen a rapidly declining role for commercial banks, but the role of contractual savings institutions has not grown as fast as in the cases of the ROK and Thailand because the role of foreign investors has grown significantly.

In Malaysia, the role of contractual savings institutions has always been important since at least the beginning of 2010. All in all, the government bond markets in the ROK, Thailand and Malaysia have relatively well-developed institutional investors and a growing role for foreign investors.

FIGURE 2
Investor profile of LCY government bonds



Note: China's data for foreign investors are included within "Others" until March 2014. Thailand's data for March, June, and September of the period 2004–07 are extrapolated from data for December in the period 2003–07, except for data for foreign investors and total holdings, which are available on a quarterly basis.
Source: Constructed by author using data from Asian Development Bank, *Asian Bonds Online*

In contrast, China has not seen investor diversification in the LCY government bond market. China's market is still dominated by commercial banks as investors and the roles of contractual savings institutions and foreign investors are very limited. This poses a challenge for China, which is projected to face the aging of its population, and thus requires the development of contractual savings institutions, such as pension funds and other institutional investors, to support the elderly after retirement.

2.4 Issuers of LCY corporate bonds

Issuers of LCY corporate bonds have become increasingly diverse over time in several economies. Major issuers of corporate bonds used to be financial firms such as commercial banks and non-bank financial institutions, but an increasing number of non-financial firms have begun issuing corporate bonds. However, a few economies continue to see the dominance of financial firms as corporate bond issuers.

Looking at the top 10 corporate bond issuers as of the first quarter of 2018, the ROK is dominated by eight financial firms, China and Indonesia by seven financial firms apiece, and Malaysia and Vietnam by six financial firms apiece.[3] In contrast, the Philippines, Singapore and Thailand have the most diversified issuer structures, each with three financial firms and seven non-financial firms, that is, in holding firms, property, water and breweries for the Philippines; in real estate, transportation, utilities and diversified firms for Singapore; and in commerce, construction materials, energy and utilities, food and beverages, communications, and transportation and logistics for Thailand. This is followed by Hong Kong, with four financial issuers and six non-financial issuers (in real estate, diversified firms, transportation, and utilities).

2.5 Perceptions of structural factors in LCY bond markets

Table 2 summarises market participants' perceptions of the current state of several structural factors related to LCY bond markets in nine emerging ASEAN+3 economies — such as the diversity of investor profile, market access, foreign exchange (FX) regulations, transaction funding, tax treatment, settlement and custody, hedging mechanisms and transparency —

3 Data points are taken from Asian Development Bank, *Asia Bond Monitor*, June 2018.

TABLE 2

Market makers' views of the structure of LCY bond markets, 2017

2a: LCY government bond market

Market participants' views	CN	HK	ID	KR	MY	PH	SG	TH	VN	Average
Greater diversity of investor profile	3.0	2.0	2.9	3.2	2.9	2.6	3.0	3.0	2.5	2.8
Market access	3.0	3.8	3.4	3.2	3.0	2.6	4.0	3.5	2.5	3.2
FX regulations	2.5	3.8	3.0	3.0	2.7	2.7	4.0	3.5	2.0	3.0
Transaction funding	2.8	3.3	2.5	3.2	2.9	2.4	3.0	2.5	3.5	2.9
Tax treatment	2.5	3.8	2.3	2.5	3.6	1.9	4.0	3.0	3.0	2.9
Settlement and custody	3.8	3.8	3.2	3.5	4.0	3.1	3.8	3.0	2.5	3.4
Hedging mechanisms	3.0	3.3	2.1	3.2	2.7	2.0	3.0	2.5	1.5	2.6
Transparency	3.3	2.8	3.2	3.5	3.3	3.0	3.7	3.5	2.5	3.2
Average	3.0	3.3	2.8	3.2	3.1	2.5	3.6	3.1	2.5	3.0

2b: LCY corporate bonds

Market participants' views	CN	HK	ID	KR	MY	PH	SG	TH	VN	Average
Greater diversity of investor profile	2.8	2.0	2.3	2.7	2.8	2.3	3.0	3.0	1.5	2.5
Market access	3.0	3.0	3.0	3.5	3.2	2.2	3.8	3.5	1.5	3.0
FX regulations	2.5	3.5	3.0	3.0	2.7	2.8	4.0	3.5	2.0	3.0
Transaction funding	2.8	3.5	2.6	3.2	3.0	2.7	3.3	2.5	2.0	2.8
Tax treatment	2.3	4.0	2.4	2.3	3.7	1.7	4.0	3.0	2.5	2.9
Settlement and custody	3.8	4.0	3.4	3.7	4.0	3.2	3.8	3.0	2.5	3.5
Hedging mechanisms	2.3	2.5	1.4	2.3	2.3	1.8	2.0	1.5	2.0	2.0
Transparency	3.3	2.5	2.7	3.7	3.7	2.8	2.8	3.5	2.0	3.0
Average	2.9	3.1	2.6	3.1	3.2	2.4	3.3	2.9	2.0	2.8

CN = China; HK = Hong Kong; ID = Indonesia; KR = Republic of Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Note: Numbers were average scores provided by market participants, who were asked to rate their respective markets on a scale of 1 to 4 for each structural issue. A rating of 4 indicates that the respective bond market is considered significantly advanced or developed with regard to the particular issue, while a rating of 1 indicates that the market is heavily underdeveloped. The cells in orange indicate a score that is very low (2.0 or below) and the cells in yellow indicate a low score (between 2.1 and 2.5).

Source: Asian Development Bank, *Asian Bonds Online*, https://asianbondsonline.adb.org/data-portal/

which are known to affect bond market liquidity. These perceptions are shown on a scale of 1 to 4, where 1 indicates significant underdevelopment and 4 significant development.[4]

The table reveals that the corporate bond market tends to have relatively more structural problems than the government bond market, except for Malaysia in country terms, and settlement and custody in terms of factor. Whether in government or corporate bond markets, Singapore is perceived to be the most developed market, while Vietnam is the least developed, followed by the Philippines and Indonesia. The factors which are adequately provided are settlement and custody, transparency, market access and FX regulations, while the most urgent factors that need to be addressed are hedging mechanisms and the diversity of investor profile, particularly for corporate bond markets.

2.6 Bond market integration

Regional financial integration through bond markets has been deepening among the ASEAN+3 countries, although the degree of such integration remains far lower than the degree of trade integration.

One indicator for financial integration is the ratio of foreign holdings of LCY government bonds to the total holdings or to GDP. Such data are available only for selected countries (i.e., China, Indonesia, the ROK, Malaysia and Thailand). As has been indicated in Figure 2, the share of foreign holdings within total holdings is highest for Indonesia, at about 40 per cent in 2017, followed by Malaysia, at close to 30 per cent, while the share for China is the lowest, at about 4 per cent. Measured as a ratio of GDP, the share of foreign holdings is highest for Malaysia, at close to 20 per cent, those for Indonesia, the ROK and Thailand are approximately 5 per cent, and that for China is a mere 1 per cent. This shows that Malaysia is reasonably open in the LCY government bond market but China remains virtually closed in its RMB-denominated government bond market.

Another indicator is the extent of the ASEAN+3 countries' intrare-

4 These scores were obtained through ADB's annual *LCY Bond Market Liquidity Survey* to assess liquidity conditions in LCY bond markets in emerging East Asia. The survey was conducted through face-to-face interviews, phone interviews and e-mail correspondence with bond market participants such as traders, bond pricing agencies, and regulators.

gional investment for portfolio debt, which has been on a rising trend. The ASEAN+3 international portfolio debt investment has been directed mainly towards the mature markets in North America and the European Union, rather than Asia and the ASEAN+3 countries particularly. Indeed the share of intraregional investment within the ASEAN+3 countries used to be low, at 3–4 per cent until the mid-2000s, and steadily rose to 13 per cent in 2014.[5] However, this is lower than its intraregional portfolio equity share of 18 per cent in the same year (or the peak of 25 per cent achieved in 2007) and far lower than the intraregional trade share of 45 per cent in the mid-2010s.

3. POLICY INITIATIVES TO PROMOTE ASIAN BOND MARKET DEVELOPMENT

The development of LCY bond markets in the ASEAN+3 countries can be explained partly by market forces and partly by joint policy initiatives undertaken by ASEAN+3 finance ministries and central banks.

3.1 Asian Bond Fund (ABF)

One initiative that has made significant headway is the project undertaken by the EMEAP to set up the Asian Bond Fund (ABF), with an emphasis on creating an environment to help private-sector financial institutions introduce investment trusts that track the Asian LCY bond markets. Worthy of note is the Asian Bond Fund 2 (ABF2), launched by EMEAP in December 2004. ABF2 consists of two components, a Pan-Asian Bond Index Fund (PAIF) and a Fund of Bond Funds (FoBF). PAIF is an exchange-traded bond fund investing in LCY sovereign and quasi-sovereign bonds issued in eight emerging EMEAP economies (China, Hong Kong, Indonesia, the ROK, Malaysia, the Philippines, Singapore and Thailand). FoBF has a two-tiered structure with a parent fund investing in eight sub-funds, each of which invests in LCY sovereign and quasi-sovereign bonds issued in their respective markets. PAIF and the eight sub-funds are passively managed by private fund managers against a Pan-Asian bond index.

Through such a structure, ABF2 aims to promote low-cost and efficient products, and increase investor awareness and interest in emerging Asian

5 For this, the most recent data are available from the Asian Development Bank's Asia Regional Integration Center (ARIC) dataset.

bonds. ABF2 has not only attracted a great deal of attention from market participants, policy researchers, and the media but also contributed to the expansion of LCY bond markets in emerging Asia.

3.2 Asian Bond Markets Initiative (ABMI)

To strengthen the resilience of the region's financial system, in 2002, the ASEAN+3 finance ministers launched the Asian Bond Markets Initiative (ABMI), which encouraged the development of LCY bond markets as an alternative source to foreign currency-denominated short-term bank loans for long-term investment financing. Over the past 16 years, ASEAN+3 finance officials have been focusing on four areas: (i) promoting the issuance (supply) of LCY bonds; (ii) facilitating the demand for LCY bonds; (iii) strengthening the regulatory framework; and (iv) improving bond market infrastructure. Various working groups have been formed to help develop LCY bond markets.

One of the visible outcomes of the ABMI's policy efforts is the establishment of the Credit Guarantee and Investment Facility (CGIF) in November 2010, whose objective is to provide credit enhancement for LCY bonds issued by private companies in the ASEAN+3 region. Credit enhancement is essential for corporate bond issuance, as the stand-alone ratings for issuers may be below the level typically sought by institutional investors in the region. While CGIF has been supporting the issuance of corporate bonds, its guarantee capacity is likely to remain significantly low compared to the long-term financing needs in the region. The expansion of both the guarantee operations of CGIF with capital increases and higher leverage ratios and the domestic guarantee facilities (like those found in Indonesia, the ROK, and Malaysia) to complement those of CGIF will be essential to closing the financing gap for long-term investment in the region. CGIF has indeed decided to increase its paid-in capital from the initial US$700 million to US$1.2 billion.

ASEAN+3 financial officials also established the ASEAN+3 Bond Market Forum (ABMF) in September 2010 as a platform for dialogue between ASEAN+3 financial authorities and market participants and experts with a view to promoting the harmonisation of regulatory standards and market practices (such as issuance, trading and clearance of bonds) and thus cross-border transactions in the region. It aims to facilitate cross-border bond transactions and market integration in the region while supporting the frontier markets of the BCLMV in developing good practices and common standards. The establishment of the ABMF is vital, as most of the efforts to develop, deepen and integrate LCY bond markets will have to be undertaken mainly by private-sector entities (i.e., issuers, investors, intermediary firms, securities exchanges, and credit rating agencies). Policymakers (governments, central banks, and international organisations) can help set up conducive environments for LCY bond market development, deepening and integration. Private sector inputs into policy processes are greatly needed and certainly benefit LCY bond markets.

A notable achievement of the ABMF was the development of the ASEAN+3 Multi-Currency Bond Issuance Framework (AMBIF) to make it possible for qualified issuers from ASEAN+3 to issue bonds in any participating member country with standardised documentation and well-defined implementation procedures. Under AMBIF, issuance approval processes are expected to be expedited and issuance costs reduced through standardised documentation. The first AMBIF pilot bond was issued in September 2015 in Thailand by Mizuho Bank for a total of THB3 billion, with a 3-year maturity and a coupon rate of 2.33 per cent.

Once cross-border bond issuance becomes mainstream within ASEAN+3, policy-makers may consider expanding bond issuance under AMBIF to firms in other parts of Asia. Investors from outside of ASEAN+3 may also be encouraged to invest in corporate bonds issued under AMBIF. A more diversified base in terms of issuers and investors under AMBIF would expand and deepen LCY bond markets and lower transactions costs, benefitting not only the ASEAN+3 countries but also Asia on the whole. In this sense, it is highly welcome that ASEAN+3 agreed to accept interested non-ASEAN+3 countries into the ABMF as observers. This would help such observer countries in developing their own LCY bond markets by not only learning from the good experience and practices gained therein, but also by working with the ASEAN+3 countries.

4. CHALLENGES FOR FURTHER DEVELOPMENT OF ASIAN BOND MARKETS

To develop and deepen Asia's LCY bond markets, the authorities have been taking a series of measures, such as expanding the size of LCY bond markets with varying maturities, diversifying issuer and investor bases, promoting market liquidity, erecting appropriate market regulation, and strengthening market infrastructures. The BCLM countries face the basic challenge of creating functioning LCY government bonds. For other ASEAN+3 countries to move to the next stage, policy actions may focus on deepening and regionally integrating LCY corporate bond markets through the liberalisation of capital flow regulations, the harmonisation of regulations, market rules, and practices across countries, and the establishment of common institutions for the region (such as for credit rating and cross-border settlement).

4.1 Boosting cross-border issuance and trading of LCY bonds

We have already noted that the level of cross-border transactions of LCY bonds conducted within ASEAN+3 is low. This is in stark contrast to the situation in Europe, where as much as 70 per cent of cross-border bond investment is made in European bonds, pointing to a very high degree of intraregional bond market integration in comparison to Asia. While intra-Asian bond investment has increased in recent years, it has yet to reach a meaningful level, leaving a significant potential upside for coming years.

To boost cross-border issuance and trading of LCY bonds in Asia, it will be essential that capital flow regulations and foreign exchange controls be relaxed, that regulations, rules, systems, and accepted market practices be harmonised across countries, and that supporting common institutions (i.e., credit rating agencies and a cross-border settlement organisation) be developed for the region.

While rising foreign investor participation in LCY debt markets can help reduce borrowing costs and spread risks more broadly among investors, it can also raise external funding risks for the issuer. This is particularly true for markets with a narrow domestic investor base and limited hedging instruments, as these factors limit the markets' ability to absorb the impact of global investors' selling-off of LCY assets during periods of market turbulence. Emerging market assets were sold off heavily during the taper tantrum in May–August 2013, when the signaling by then Federal Reserve Chairman

Ben Bernanke of the tapering of highly accommodative monetary policy invited sharp declines in debt, equity, and currency prices in the "fragile five" and other emerging economies.

Looking forward, the interest rate normalisation pursued by the Federal Reserve could worsen emerging market debt sell-offs and lead to significant financial turmoil, as is currently observed in Turkey, Argentina, Brazil and elsewhere. This suggests a prudent approach is warranted, together with global financial safety nets.

4.2 Credit ratings

The presence of high-quality rating agencies is vital for well-functioning bond markets. There are many local credit rating agencies in Asia, which rate local issuers based on a "national scale," that is, using each sovereign issuer as an AAA benchmark. In contrast, global rating agencies provide ratings for high-quality issuers based on a "global scale", that is, by differentiating various risk classes of sovereign and non-sovereign issuers; but they do not provide ratings for a large number of smaller local corporate issuers. Local rating agencies do provide such ratings for local issuers, but they have limited rating capacities and their rating methods are different across countries.

There is a need to enhance the technical capacities of local rating agencies and increase the comparability of rating methods across countries. Continued efforts are in place to help prepare Asian credit rating agencies for Basel III implementation and adoption of the fundamentals of the International Organization of Securities Commission's (IOSCO) code of conduct. It is essential that rating standard harmonisation efforts for local rating agencies be stepped up.

4.3 Cross-border securities settlement

With the growth of local currency bond markets, there is an increasing recognition that Asia will need a regional clearing and settlement infrastructure. So far, local settlement systems (national central securities depositories) have provided for delivery-versus-payment and served the needs of local investors without much problem. While the existing global arrangements for cross-border bond transactions — involving international settlement institutions (such as Euroclear and Clearstream) and global custodians (such as the US and European financial institutions) — are efficient and have served

Asia well, with the expanding volume of transactions, Asian investors will expect an increasing exposure to the risk of being in a different time zone, i.e., the Herstatt risk. The time zone differences which exist for fund payment and securities settlement make it a challenge to recover money from a counterpart financial institution that has run into financial difficulties or gone bankrupt during the creditor's non-business hours.

One important way to reduce this time-zone risk is the creation of a regional clearing and settlement organisation, which should be considered as a public good for both regional and global investors. Work needs to be accelerated to review various risks in cross-border payments and settlements and analyse options to reduce such risks, including the establishment of an Asian clearing and settlement infrastructure.

5. CONCLUSION

There has been steady progress in LCY bond market development in the ASEAN+3 countries in terms of market size and liquidity, but the degree of market development varies among countries. The BCLM countries have yet to create functioning bond markets, particularly those for government bonds. Indonesia, the Philippines and Vietnam have created such markets for government bonds with stable yield curves but have yet to develop attractive corporate bond markets. China, the ROK, Malaysia and Thailand have seen active corporate bond markets, although increasing market liquidity and cross-border investment remain a challenge.

The ASEAN+3 member countries need to step up efforts to further develop corporate debt markets and accelerate regional debt market integration to enable the corporate sector to issue long-term LCY debt at a lower cost and in a currency that matches the corporate sector's financing needs. More developed and integrated LCY bond markets will provide a more reliable source of funding to finance corporate investment needs in the domestic market instead of tapping foreign currency-denominated debt markets. This would help not only reduce the region's dependence on foreign currency financing and its vulnerability to external shocks but also support long-term economic growth by stimulating sound investment by the private sector.

"Missing Links" in the Financial System in ASEAN

Future Challenges in Regional Financial Cooperation

Fumiharu Mieno

THE SCOPE OF ASEAN+3 FINANCIAL COOPERATION SINCE THE EARLY 2000S

A financial cooperation framework in ASEAN+3 was virtually created in the early 2000s by Japan's initiative and the wide cooperation across ASEAN, China, and South Korea. In the midst of the turmoil during the Asian Financial Crisis (AFC) in 1997–8, financial reform measures directed by the World Bank and IMF focused on the rescue and reconstruction of the banking sector, capital market development and reform of corporate governance.

It was in 2001, three years after the crisis, that an ASEAN+3 Financial Cooperation framework was initiated by focusing more on the development of schemes to support longer-term regional capital flows. The framework consisted of two substantive components. The first was the currency cooperation framework known as the Chiang Mai Initiative (CMI), based on a currency swap framework and harmonised macroeconomic policies across East Asia to achieve autonomy from US dollar-denominated capital flows. The second was the bond market development framework named as the Asian Bond Market Initiative (ABMI), aimed at strengthening long-term capital flows in East Asia and accelerating investment in the region.

The concept of "double mismatches" posed by Yoshitomi and Ohno[6] and Yoshitomi and Shirai[7] is widely known as a theoretical prop for the framework. According to these authors, "currency mismatch" refers to the problem of excessive dependence on the US dollar-based settlement system in trade and capital flows, in circumstances when regional trade and capital

6 Masaru Yoshitomi and Ken'ichi Ohno, "Capital-Account Crisis and Credit Contraction: The New Nature of Crisis Requires New Policy Response," ADB Institute Working Paper 2, 1999.

7 Masaru Yoshitomi and Sayuri Shirai, "Designing a financial market structure in post-crisis Asia: How to develop corporate bond markets," ADB Institute Working Paper 15, 2001.

transactions had been highly localised. Their argument asserts that such an unnecessary dollar-dominated system made frequent exchange interventions unavoidable, remotely contributing to the 1997 crisis.

"Maturity mismatch" refers to the problem of overseas capital inflows being biased in favour of those of a short-term nature, particularly through bank credits, while capital demands for investment were of a long-term nature. Given high savings rates in the region, constructing regionally autonomous capital flow channels based on the network of local currencies seemed possible.

HOW ASEAN'S MACRO ECONOMY HAS BEEN STABILISED SINCE THE LATE 2000S

Currency cooperation in CMI was initiated in a form of bundling of bilateral swap agreements. Then, from 2010 onwards, these frameworks evolved into the multilateral agreement form known as CMI Multilateralisation (CMIM), which sets contribution shares and usable withdrawal credit line amounts for each member country. The CMIM is designed in such a way that China and Japan contribute larger sums, making it virtually function like foreign currency reserves of China and Japan for the ASEAN countries when an emergency occurs. Drawing from the collapse of Lehman Brothers bank in 2008, which led to the Global Financial Crisis, the framework introduced flexibility by weakening the IMF's requisite links (known as "IMF delink"). It also established the ASEAN+3 Macroeconomic Research Office (AMRO) in 2011 as an international institution to regularly monitor the macroeconomic conditions of member countries.

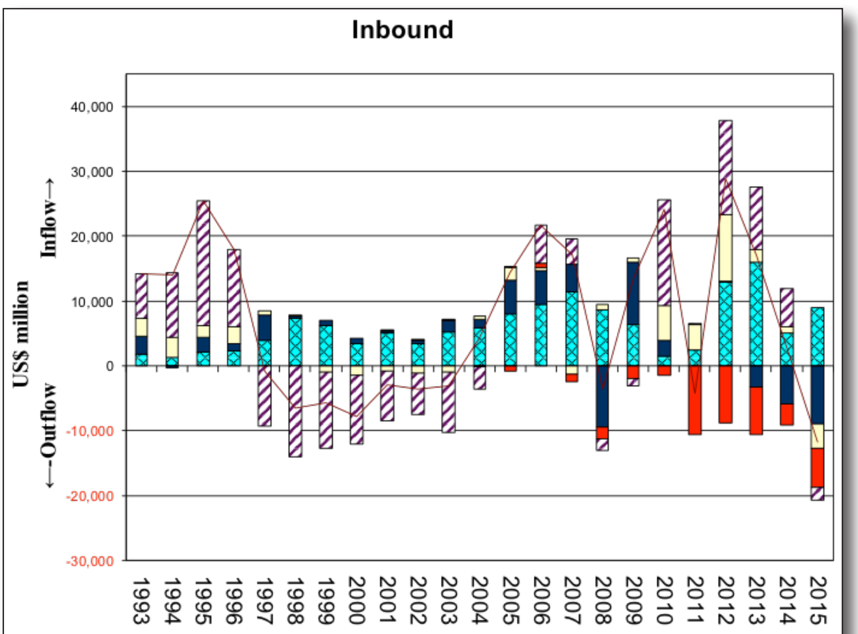
ABMI's effort to develop bond markets in Asia covers various types of supports, including technical assistance for equipping transaction systems, constructing relevant legislative framework, improving bond rating systems, and harmonising regulatory institutions in the region. At the early stage, expansion of the sovereign bond markets was a priority. Later, attempts were made to develop corporate bond markets and regional cross-border issuance. The region's central banking association — Executives' Meeting of East Asia and Pacific Central Banks (EMIAP) — joined these efforts and created the Asian Bond Fund (ABF). Also, a Credit Guarantee Investment Facility was created within the Asian Development Bank in 2010. The latter aims to promote bond issues in Asia through select guarantees.

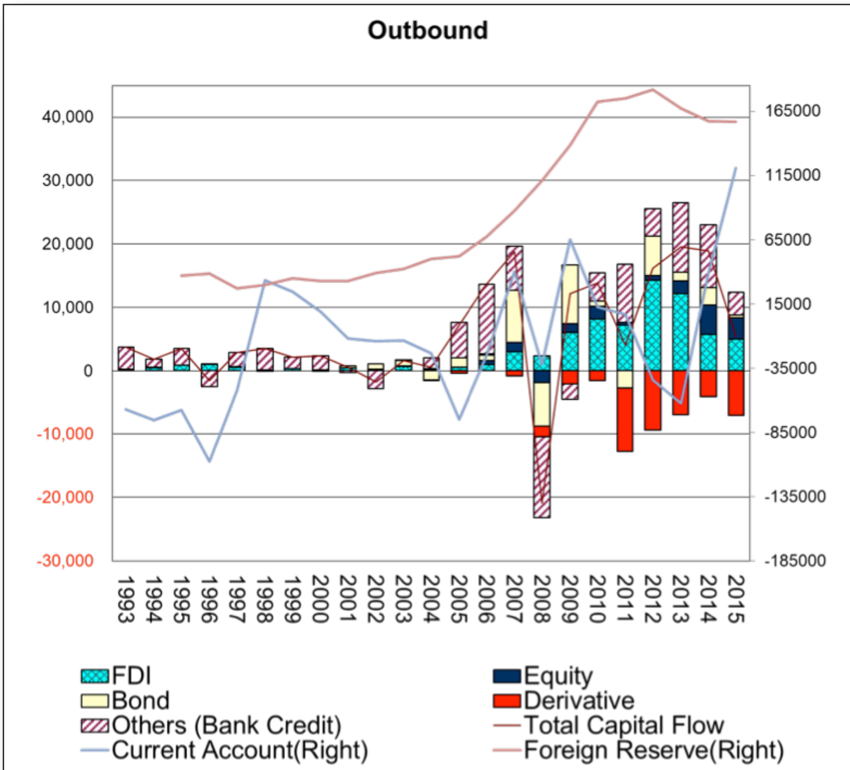
These efforts made substantial achievements until 2015. Meanwhile, it should be noted that neither the achievement of ASEAN+3 Financial Cooperation through Japan's initiative nor the corporate governance reforms undertaken earlier under Word Bank/IMF guidance have been a direct reason for ASEAN's well-functioning macro economy since late 2008–9.

In fact, the recovery of the real sector was driven by the foreign direct investment (FDI)-led manufacturing sector, regardless of the position of the financial sector or capital flows in the region. The growth of exports in manufacturing, in turn, converted the current account from a deficit to a surplus, and brought increases in foreign reserves to an unprecedented level.

As shown in the case of Thailand (Figure 1), the country has transformed its macroeconomic structure from being a capital recipient into a capital exporter since 2004–5. Undoubtedly, accommodated capital flows or currency policy harmonisation under the financial cooperation framework contributed less to the stable structure in capital flows than the growth in exports did. In short, the financial system and capital flow were stabilised not as a prerequisite to, but as a result of, the real sector's recovery.

FIGURE 1
Gross Financial Accounts (inbound, outbound), Thailand





Source: IMF, Balance of Payment Statistics.

MANUFACTURING-LED GROWTH AND CORPORATE FUNDRAISING

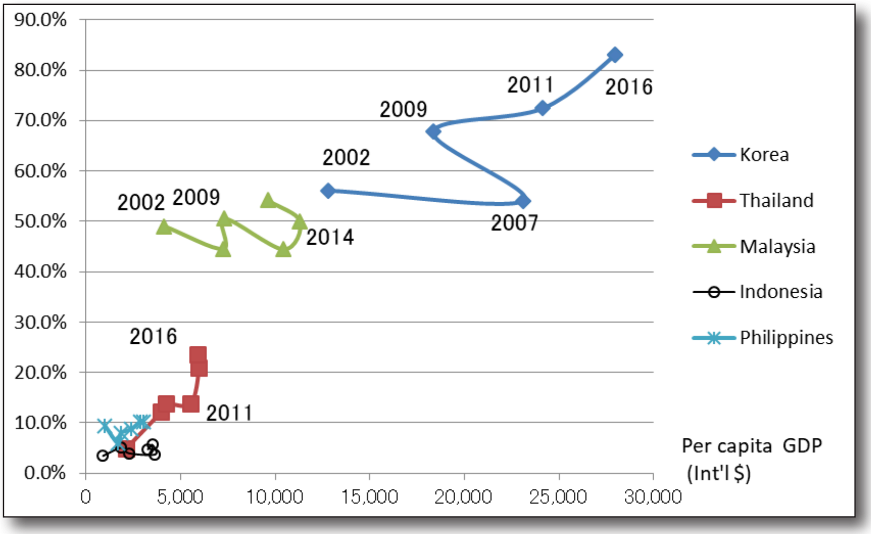
Manufacturing growth in the region in the 2000s was achieved even amidst persisting financial distress. This fact suggests the possibility that the sector has not depended much on financial intermediation or the securities market in its search for investments. In fact, the region's manufacturing sector has been driven by FDI, which are essentially self-financed.

That corporations in ASEAN have had high dependence on self-financing is evident from various aspects. For example, the ratios of commercial bank lending to the manufacturing sector against total lending stood at around 24 per cent in Thailand and 11 per cent in Malaysia in 2004, and the ratio has further declined through the 2000s. The average debt ratio of non-financial corporations listed on the Stock Exchange of Thailand was

51.2 per cent even in 1996, at the peak before the AFC, and further declined in the 2000s. Although market capitalisation in the securities markets of each country seems to have grown since the 2000s, the participation rate of major firms in the securities markets remains low. For example, the number of listed corporations (excluding financial corporations) among the top 400 firms (measured by total assets), remained at only 135 (33.8 per cent) for Thailand, and 164 (41 per cent) for Indonesia in 2005.[8]

Also, bond markets do not hold much promise as a channel for corporate fundraising. As shown in Figure 2, the size of the corporate bond markets in the ASEAN+3 countries has not changed significantly in the period after the Lehman shock — except in Thailand and South Korea — despite concerted efforts under the ABMI. It remains negligibly low in Indonesia and the Philippines. And in Malaysia the bond market has been large, but unchanged since it is at the early growth phase.

FIGURE 2
Corporate Bond Outstandings as a percentage of GDP



Note: The data for 2002, 2007, 2009, 2011, 2014, and 2016 was plotted.
Sources: Asian Development Bank, *Asia Bond Online*, and The World Bank Group, *World Development Indicators*.

8 The figures cited in this paragraph are from Fumiharu Mieno, *Financial Reform and Southeast Asia: Analyzing Regional Long-term Trends and Corporate Finance* (Tokyo: February 2015). (In Japanese.)

These facts suggest that it is not underdevelopment of the capital supply channel but demand side factors that determine the level of utilisation of various external finances (i.e., bank borrowing, equity, and bonds) at micro level. Therefore, efforts to merely construct and upgrade the capital supply side may not be sufficient, even though they are certainly necessary, to actualise a functioning bond market.

There is no doubt that the twin efforts of the past decades to develop an environment for harmonised currency policy (CMI) and the development of a unified bond market (ABMI) have reached substantial outcomes. They have become crucial and underlying institutional infrastructures in the region. Yet, they are not sufficient conditions for a fully functioning financial market. While the regional capital flow has been activated both in the inbound and outbound directions under the well-controlled environment since the late 2000s, it has not been very well linked to firms' micro-level fundraising in the region. Firms in the region remain strongly dependent on internal financing (self-financing). Financial corporations may gain more by paying greater attention to this basic fact, an insulation of the capital/credit flows between the macro and micro levels, which essentially suggests an insulation between the financial and real sectors.

"MISSING LINK" IN THE FINANCIAL SYSTEM AND NEW CHALLENGES

Weak external finance

Considering the abovementioned "missing link" between an active capital flow in the economy and low levels of external fundraising on the part of firms, two major challenges for further financial development arise, which demand more than conventional attempts from the CMI and ABMI. Firstly, the efforts should be directed towards better understanding ASEAN's firms' preference for self-financing, and towards activating diverse external financial sources, such as bank credits, equities, and bonds, based on the insights from such studies.

To our best knowledge on this issue, a certain complementarity rather than a substitutive nature exists between bank credits and securities markets. The view is rather controversial as far as the ABMI is concerned. The ABMI sees bond market development as an alternative to bank credit, as if the latter will be replaced by the former. In reality, however, bank credit, equity, and bonds all have a common nature as external financial channels; thus, an effort to activate any external financial channel where self-financing has hitherto dominated will have an externality effect on the other channels.[9]

The ABMI views differences among the three external financial channels mostly through the lenses of maturity. However, there are fundamental differences among the three in various aspects other than maturity. As shown in Table 1, the differences in function between bank credit, equity finance, and bond finance centre at least around the information cost, protection of investors' rights (enforcement problem), and risk absorption capacities, as well as maturity. Bond markets are advantageous mainly in that they have long-term maturity, but are disadvantageous in terms of information cost, and they rank average in investors' protection and risk absorption. Generally, the best capital channel (or best mix of channels) is determined by its suitability to the characteristics of a given industry/firm's technology, as well as the institutional environment's development stage.

TABLE 1
Theoretical ranking of financial channels according to four key determinants

	Information Processing		**Enforcement & Investors' Rights Protection**		**Maturity**		**(4) Risk Absorption**
		Information cost	Need for Protection	Controllability in Default Case		Risk of Liquidation	
Bank Credit	Concentrative	Low	Low	Steady	Short	High	Weak
Bond	Competitive	High	High	Weak	Long	Low	Mild
Equity	Competitive	High	High	—	Long	Low	Strong
	Institutional Environment				Industry (Demand Side) Specific		

In the context of ASEAN's economic development, the fact that corporate bond financing is the least active of financing channels seems to reflect the region's fundamental growth structure, which is led by the FDI-dependent manufacturing sectors. Changes may arise with the change of growth structures from FDI-oriented to home-grown ones, emerging infra-

9 For example, see the case of Thailand in Fumiharu Mieno, "Fund Mobilization and Investment Behavior in Thai Manufacturing Firms in the Early 1990s," *Asian Economic Journal* Vol. 20 No.1, 95–122

structure investments, a consumption-led economy, or possible future rise of locally produced innovation. The type of capital demands and therefore suitable capital channels will be different when the ASEAN countries arrive at these phases.

Financial channel for infrastructure investment

It cannot be safely said, as yet, that the bond market plays a major role for the rapidly growing infrastructure investment needs in Asia. In the early stage, the lack of long-term capital channels was regarded as a crucial rationale for bond market development. Today, we recognise, however, that the nature of infrastructure investment reflects that of typical long-term investments, is not fully attained by market-based finance (such as bond financing), and that government-committed financial channels can be effective. China's Belt and Road Initiative (BRI) can perhaps be interpreted as a new capital provision system under a strong government-centric policy initiative, which may complement financial backlogs in long-term capital markets.

EVOLUTION OF ASEAN+3 FINANCIAL COOPERATION

The ASEAN+3 Financial Cooperation framework achieved substantial improvements in currency policy harmonisation as well as in bond market expansion. At the same time, capital flow in Asia has strongly recovered, evolving into both inbound and outbound directions, while being highly regionalised.

Despite such dynamic changes in macroeconomic conditions, little has changed in terms of firms' fundraising channels, or in re-emerging infrastructure finances. Many small or large corporations in ASEAN have not diversified their fundraising, clinging on to self-financing. Governments and public institutions, rather than the securities market, have continued to play a major role in financing infrastructure investment in the form of development assistance-type soft loans.

It might be time to revisit the initial concerns regarding the ASEAN+3 Financial Cooperation framework, in particular the issues of long-term capital provision. Based on the current stage of achievement in the ABMI, the argument could go beyond the bond market. The system of long-term capital channels should be designed to fit the nature of capital demand. In the current stage of ASEAN's economy, the demand for long-term capital is expanding in the consumption sector, infrastructure investment, and possibly in the area of locally innovations in manufacturing and the service sectors. A system should be designed with consideration for innovation pathways, government commitment, and institutional risk absorption.

Needless to say, these challenges are partially shared in China's BRI agenda. Extensive arguments in ASEAN+3 Financial Cooperation could include effective pillars to address controversial and challenging concerns raised by BRI, government commitment in infrastructure construction, aid and business relationships, and land grabbing in investment destinations. The ASEAN+3 Financial Cooperation framework could possibly become an important platform for a wider Asian dialogue on state-directed capitalism and problems of mercantilism, such as dominance by state-owned enterprise.

Foreign Direct Investment in ASEAN and its Policy Challenges

Chia-yi Lee

Foreign direct investment (FDI) refers to long-term investments in a country made by companies incorporated in another country. Unlike portfolio investment, which is generally short term and does not involve the controlling of a company, FDI involves multinational corporations (MNCs) setting up subsidiaries or joint ventures) in a foreign country and thus helps the host country create jobs and stimulate economic growth. Owing to its beneficial effect on the economy, many governments, particularly those of developing countries, have made great efforts to lure FDI through incentives such as tax reduction. The ASEAN countries are no exception in this regard. FDI plays a key role in ASEAN's economy and its significance will continue, although some challenges exist.

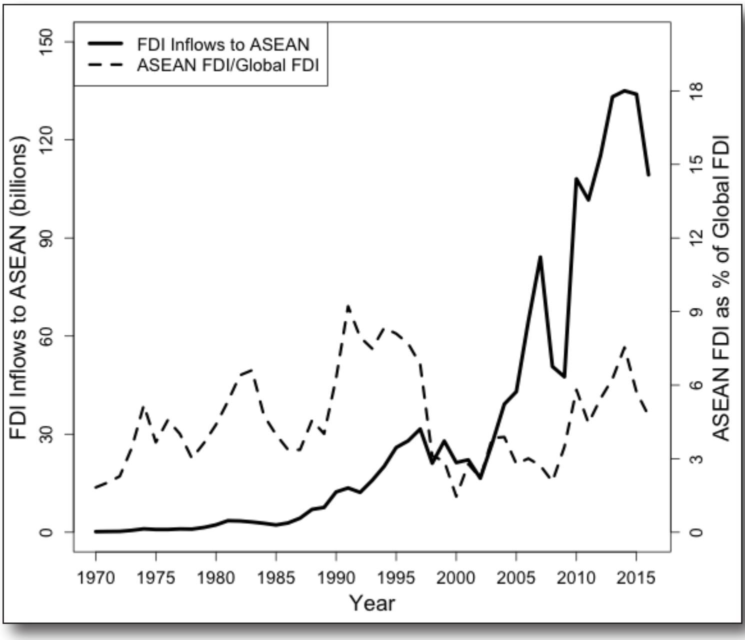
RECENT FDI TRENDS AND DEVELOPMENTS IN ASEAN

ASEAN as a whole is the sixth largest economy in the world and it has the world's third largest labour force (after China and India). Due to its expanding market size and abundant labour, ASEAN has a huge potential to be a major FDI destination. Figure 1 shows FDI in ASEAN and its share of global FDI from 1970 to 2016.[10] As can be seen, FDI flowing to ASEAN rapidly increased over the period although it slowed down slightly in 2016. The total amount of FDI in ASEAN in 2015 was triple that in 2005, whereas the

10 According to the World Bank's definition, FDI "refers to direct investment equity flows in the reporting economy. It is the sum of equity capital, reinvestment of earnings, and other capital. Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy. Ownership of 10 per cent or more of the ordinary shares of voting stock is the criterion for determining the existence of a direct investment relationship." (World Bank Group, World Development Indicators 2014, World Bank Publications, 2014)

global FDI in 2015 was only 1.5 times larger than the global FDI in 2005. This significant growth appears to indicate the success of ASEAN members in attracting FDI.

FIGURE 1
FDI Inflows to ASEAN countries from 1970 to 2016



Source: The World Bank Group, World Development Indicators, 2014

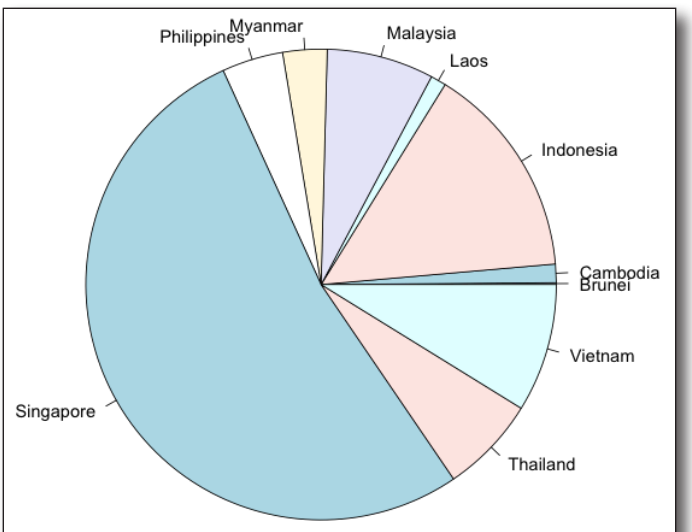
If we look at FDI in ASEAN as a share of global FDI, however, it has not fared so well. As seen in Figure 1, FDI in ASEAN as a percentage of global FDI has not risen in the past four and half decades; it is consistently lower than 10 per cent and averages 4.6 per cent. This suggests that, while ASEAN seems to receive a growing amount of FDI, it does not represent an increasingly attractive destination for FDI. One reason is the intense competition for global capital among developing countries. Because the majority of global FDI flows within developed countries, developing countries have to compete fiercely with each other to lure the remaining capital. In this regard, China and Latin America have performed better than ASEAN, as the FDI they have been attracting since 2010 on average accounts for 12 and 13 per cent of global FDI, respectively.

The other reason why we have witnessed fast growth in FDI in ASEAN but no increase in its global share is the rise in intra-ASEAN FDI in recent years. In 2015 and 2016, for example, ASEAN itself was its largest investor, followed by the European Union, Japan, and the United States.[11] In other words, a significant portion of capital is flowing among ASEAN member states. While this indicates vibrant economic activity within ASEAN, it signals ASEAN's inability to attract more capital from outside. This problem is especially salient if we take into account the fact that much of the FDI flowing to ASEAN is channelled through Singapore, a global financial hub. This means that the data may involve double counting FDI that is invested in Singapore and later re-invested in other ASEAN countries. So, the real FDI flowing to ASEAN may be overestimated.

COUNTRY BREAKDOWN

In addition to the overall trend, the distribution of FDI among ASEAN members also reveals some noteworthy issues. As Figure 2 shows, FDI in

FIGURE 2
FDI in ASEAN by Country, 2015



Source: The World Bank Group, World Development Indicators databank.

11 See ASEAN document at http://asean.org/storage/2015/09/Table-27_oct2016.pdf.

ASEAN is not distributed evenly across member countries, and the variation is significantly large. In 2015, the majority of FDI flowed to Singapore, which accounts for 52.7 per cent of the total FDI in ASEAN. Indonesia and Vietnam were the second and third largest FDI recipients, followed by Malaysia and Thailand. FDI received by these four countries accounted for 37.6 per cent of the total FDI in ASEAN. Other countries, such as Cambodia, Laos, and Myanmar, were seriously lagging behind in terms of their ability to attract FDI.

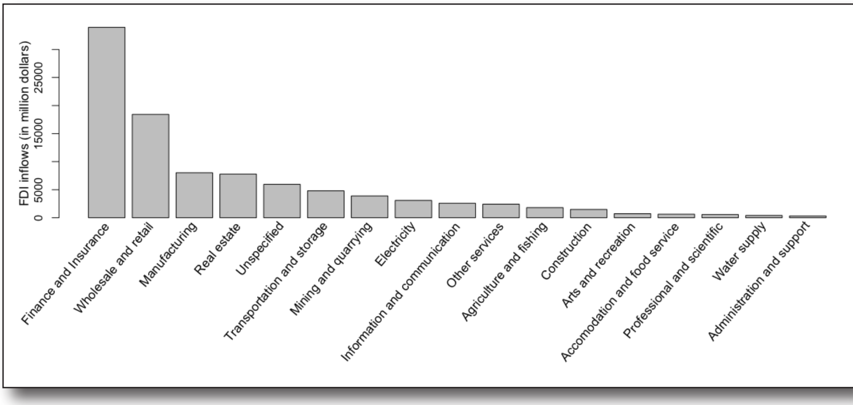
The development gap has long been a concern and obstacle to integration for ASEAN. A huge divide exists within ASEAN members in many dimensions, with FDI being no exception. As FDI contributes to employment and economic development, this gap in FDI inflows implies that the development gap is not only an ongoing issue in ASEAN, but may also widen in the future. Countries that receive higher levels of FDI will continue growing, possibly at a faster pace, than countries that receive lower levels of FDI, resulting in a wider development gap.

SECTORAL BREAKDOWN

The uneven distribution of FDI in ASEAN not only occurs within countries, but also exists across sectors. Figure 3 presents FDI in ASEAN in 2016 by sector. As can be seen, the sector that received the most FDI was finance and insurance, followed by wholesale and retail, manufacturing, and real estate. Apparently, the capital flowing to the finance and insurance sector mainly enters Singapore. Other countries, however, have not yet achieved industrial transformation and thus are less successful in attracting FDI in high value-added industries. While the data do not distinguish between greenfield and Mergers and Acquisitions (M&A) FDI, the 2017 ASEAN Investment Report[12] shows that foreign investors actively engage in both activities, except for Indian investors, who tend to enter the ASEAN market through greenfield strategy.

12 ASEAN Secretariat and UNCTAD, "ASEAN Investment Report 2017: Foreign Direct Investment and economic zones in ASEAN," October 2017, http://asean.org/storage/2017/11/ASEAN-Investment-Report-2017.pdf.

FIGURE 3
FDI in ASEAN in 2016 by Industry (in million dollars)



Source: ASEAN Secretariat and UNCTAD, "ASEAN Investment Report 2017: Foreign Direct Investment and economic zones in ASEAN," October 2017, table 1.2, http://asean.org/storage/2017/11/ASEAN-Investment-Report-2017.pdf.

POLICY CHALLENGES

The following are some of the challenges faced by ASEAN countries in attracting and regulating FDI.

Political Risks

Political risks (including violence, expropriation, and transfer risks) are oftentimes the major investor concern in making investment decisions. According to the 2017 A.T. Kearney Foreign Direct Investment Confidence Index,[13] the most important factor in influencing a business to choose where to invest is a country's *general security environment*, followed by *efficiency of legal and regulatory processes*, *tax rates and ease of tax payment*, *technological and innovation capabilities*, and *transparency of government regulation and lack of corruption*. The first two and the fifth factors are highly related

13 Erik R. Peterson and Paul A. Laudicina, "The 2017 A. T. Kearney Foreign Direct Investment Confidence Index: A Glass Half Full," A. T. Kearney, https://www.atkearney.com/foreign-direct-investment-confidence-index/article?/a/glass-half-full-2017-foreign-direct-investment-confidence-index-article.

to a country's political environment, which plays a more crucial role than *domestic market size* and *cost of labour* in determining investor decisions. This is so because nowadays much capital is invested in the high-tech sectors that focus more on the protection of intellectual property rights, research and development and innovation policy, and the availability of high-skilled labour, rather than traditional manufacturing sectors that are mainly driven by cheap labour and proximity to markets. In other words, improving domestic governance and reducing political risks would be of primary importance to ASEAN countries should they wish to attract more FDI.

In this regard, Singapore has performed the best among all ASEAN members in building investor confidence, with its FDI Confidence Index ranking within the global top 10,[14] thanks to its strong rule of law, bureaucratic efficiency, and political stability. The other ASEAN members, however, are not as competitive as other Asia-Pacific countries such as Japan, New Zealand, South Korea, and Taiwan, and the key lies in their political environment. If a country's domestic politics is unstable and characterised by corruption, lack of transparency, and red tape, foreign investors will be deterred from entering its market, even in the presence of tax or other financial incentives. So, ASEAN countries should no longer just capitalise on their cheap labour, but should make more efforts to reform their political, bureaucratic, judicial, and regulatory systems to provide an appealing and stable investment environment for MNCs.

Regulation of FDI

While FDI benefits the host country's economy, its social, cultural, or environmental impact cannot be ignored. Factories set up by MNCs may in some cases pollute the environment, hire sweatshop and child labour, and chase away local firms that possess less capital. As a result, the locals could be deprived of their jobs and traditional ways of life, income inequality may rise, and social backlashes against FDI may occur. These are the hidden costs of FDI that many citizens are increasingly aware of, including those in the ASEAN countries. In Vietnam, for example, several large-scale protests against foreign firms that are accused of polluting the water have broken

14 Ibid.

out in recent years.[15] Similar cases took place in Myanmar and Cambodia in which local residents protested against energy infrastructure projects invested by China.[16]

There is continuing debate whether economic growth should be prioritised over environmental protection. To lure foreign capital, some ASEAN countries have to allow foreign investors to take advantage of their natural resources or abundant labour. FDI in the natural resource sector or light industry, indeed, has helped their economies to grow, even though such growth has been at the expense of environmental quality and labour protection in some cases. It should be noted, however, that there is not necessarily a tradeoff between economic development and environmental sustainability. While some studies do show that lax environmental and labour standards are a characteristic of FDI,[17] others find that FDI helps spill over stringent environmental regulations from home countries to host countries, leading to a "race to the top".[18] As environmental awareness increases and clean technology advances, a country does not need to be a "pollution haven" to attract FDI. Instead, ASEAN governments should tighten their regulation of FDI flows and focus on more productive, competitive, and higher value-added industries.

Complementarities and integration

15 See, for example, Mai Nguyen, "Vietnam pollution fight hits supplier to global fashion brands," *Reuters*, July 21, 2017, https://www.reuters.com/article/us-vietnam-pollution/vietnam-pollution-fight-hits-supplier-to-global-fashion-brands-idUSKBN1A60GO; and "Vietnam blames Formosa mill for fish kill," *Taipei Times*, July 1, 2016, http://www.taipeitimes.com/News/front/archives/2016/07/01/2003650089.

16 See "Hundreds protest pipeline in Burma's Rakhine state," Radio Free Asia, April 18, 2013, https://www.rfa.org/english/news/myanmar/pipeline-04182013175129.html; and Beth Walker, "Protests halt Chinese-backed dam in Cambodia," Chinadialogue.net, March 19, 2014, https://www.chinadialogue.net/blog/6837-Protests-halt-Chinese-backed-dam-in-Cambodia/en.

17 For example, see Yuquing Xing and Charles D. Kolstad, "Do lax environmental regulations attract foreign investment?", *Environmental and Resource Economics* 21, no. 1 (2002): 1–22; Hoda Hassaballa, "The effect of lax environmental laws on foreign direct investment inflows in developing countries," *Journal of Emerging Trends in Economics and Management Sciences* 5, no. 3 (2014): 305–315.

18 For example, see Prakash Aseem and Matthew Potoski, "Investing up: FDI and the cross-country diffusion of ISO 14001 management systems," *International Studies Quarterly* 51, no. 3 (2007): 723–744.

ASEAN is characterised by its diversity in terms of economic development, culture, ethnicity and other dimensions. While some believe that diversity is a barrier to integration, ASEAN can in fact harness its diversity to attract more FDI. As globalisation seems to be an irreversible trend, participation in global supply chains and production networks has become increasingly important for businesses around the world. Global value chains are basically coordinated by MNCs, whose decisions on where to invest and who to partner shape the patterns of value added.[19] ASEAN should take this opportunity to develop regional supply chains and integrate itself into global supply chains. Endowed with diverse comparative advantages and strengths, ASEAN member countries can complement each other, with different countries focusing on different segments of the supply chain. This will not only stimulate ASEAN into becoming a supply chain powerhouse, but will also help small and medium-sized enterprises (SMEs), which are the backbone of the ASEAN economy, to transform and upgrade.

To better connect with global supply chains and attract more FDI, ASEAN should foster its regional integration with a view to lowering trade and FDI barriers and promoting freer flows of goods, services, and labour. The ASEAN Comprehensive Investment Agreement (ACIA) signed in 2009 aims to promote a better investment environment in ASEAN by enhancing investor protection and liberalising the investment regimes of ASEAN member countries. With the establishment of an ASEAN Economic Community (AEC) in 2015, the development of a regional production base and regional value chains has also gained momentum. More efforts, however, should be undertaken by ASEAN to deepen integration and build a friendly investment environment, such as harmonising standards and procedures, providing better infrastructure support, and promoting connectivity with other countries and regions.

CONCLUSION

FDI plays an important role in promoting economic development and creating job opportunities in ASEAN. While the data show that FDI in ASEAN has grown exponentially, its share of global FDI has stagnated, partly due

19 See ASEAN and UNCTAD, "ASEAN Investment Report, 2013–2014: FDI Development and Regional Value Chains," 2014.

to increasing intra-ASEAN investment that may include FDI flowing from outside ASEAN through Singapore. FDI in ASEAN is also skewed towards a few countries and sectors, especially the financial sector in Singapore. To attract more FDI, the ASEAN countries should act together to promote a better and more integrated environment for foreign investors. Countries that lag behind should also reduce their political risks. Last but not least, while restrictions on FDI should be relaxed, governments cannot loosen environmental and labour standards in exchange for FDI.

Capital Flows in ASEAN

Satoshi Tobe

INTRODUCTION

Do capital inflows contribute to the economy of capital recipient countries? Papers in the field indicate that inflows have positive effects. However, it is still not clear how large the effects are. Some studies suggest steady effects, while others assess them to be elusive.[20] Another observation as far as Asian countries are concerned, especially East Asian ones, is that the Asian region is a capital exporter despite recording steady economic growth. This suggests that Asian countries are able to achieve high economic growth even if they experience net capital outflows instead of inflows.

This negative relationship between net capital inflows and economic growth in developing countries is often called an "allocation puzzle."[21] This may somewhat weaken the standard catch-up scenario, wherein developing countries exploit external capital and achieve higher growth than developed countries. However, these discussions on the puzzle rely on old data focusing on the 1980s and 1990s.

This article provides a preliminary analysis that revisits the interaction between capital inflows and economic growth in Asian countries. To this end, it uses a panel dataset incorporating 30 Asian countries from 1998 to 2016. The following introductory exercises help in understanding recent interactions between capital inflows and economic growth.

20 Pierre-Olivier Gourinchas and Jeanne, "The Elusive Gains from International Financial Integration," *Review of Economic Studies* 2006, 73, 715–741.

21 Pierre-Olivier Gourinchas and Jeanne, "Capital Flows to Developing Countries: The Allocation Puzzle," *Review of Economic Studies* 2013, 80, 1484–1515.

CAPITAL FLOWS AND ECONOMIC GROWTH

This section shows the interaction between capital inflows and economic growth in Asian countries. It uses a panel dataset covering 30 Asian countries from 1980 to 2016. Coverage of the countries is summarised in Figure 1.

FIGURE 1
Sampled Countries

ASEAN 10 countries	Brunei Laos Philippines Vietnam	Cambodia Malaysia Singapore	Indonesia Myanmar Thailand
Non-OECD Asia, 26 countries	*ASEAN +* Armenia Bhutan Hong Kong Kyrgyzstan Nepal Tajikistan	Azerbaijan China India Maldives Pakistan	Bangladesh Georgia Kazakhstan Mongolia Sri Lanka
Asia, 30 countries	*Non-OECD Asia +* Australia New Zealand	Japan	Korea

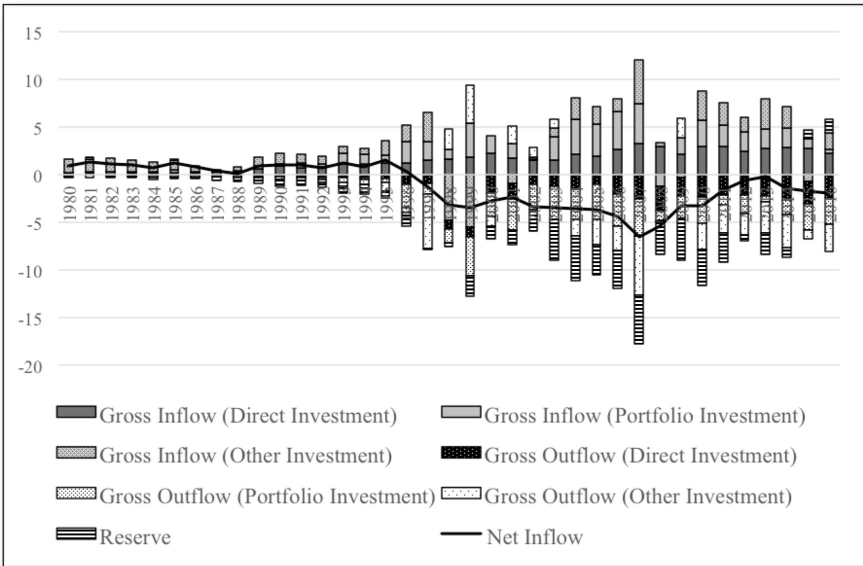
Figure 2 shows the dynamics of aggregated capital flows in Asian countries.[22] According to this figure, the Asian region experienced net capital inflows until the mid-1990s, which means that Asian countries, as a whole, imported foreign capital from the rest of the world.

However, the trend dramatically changed in 1997, when the Asian Financial Crisis (AFC) occurred. Since the crisis, Asian countries have been experiencing net capital outflows, which means that the Asian region has become a net capital exporting area. This new trend seems to be mainly supported by increases in foreign reserves. At the same time, Asian countries achieved steady and high economic growth. Considering these facts, do these dynamics indicate that Asian countries can achieve economic growth without relying on foreign capital?

Observing gross capital flows presents a different picture. As can be seen

22 Data described in Figure 2 is simply aggregated (cross-sectional sample sum in each period), so intra-Asia transactions are not canceled out.

FIGURE 2
Capital Flows in Asia (as a percentage of aggregated Asian GDP), 1980–2016

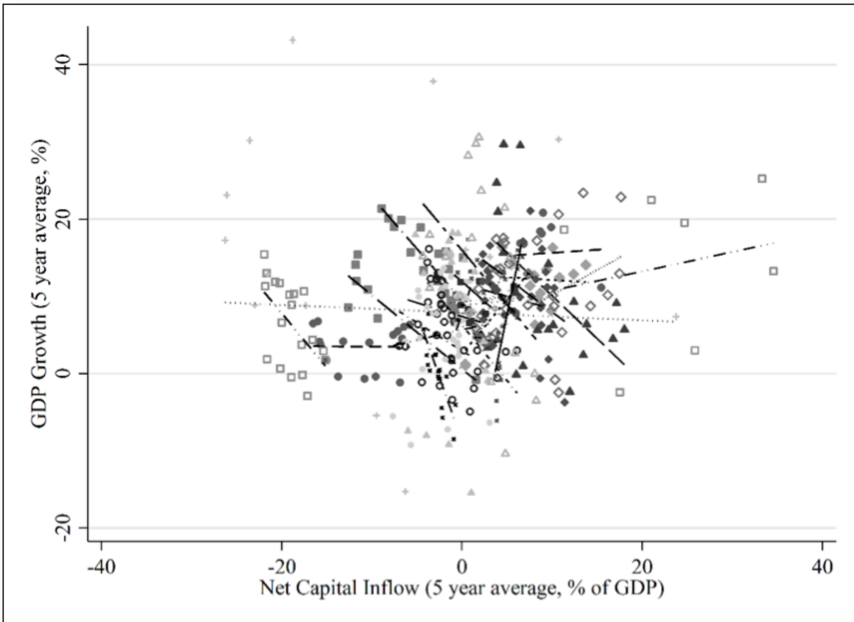


Note: The black line represents net capital inflows. The various bars represent gross capital flows, broken down into direct investment flows, portfolio investment flows, other investment flows, and changes in foreign reserves. In this figure, gross capital inflows, defined as net purchase of domestic assets by foreign agents (residents), are plotted above the horizontal zero line. Similarly, gross capital outflows, defined as net purchase of foreign assets by domestic agents (residents), are plotted below the horizontal zero line.
Source: The World Bank Group, World Development Indicators: International Financial Statistics.

in Figure 2, the Asian region has recorded large gross capital flows. The scale of gross flows is larger than the net flows. For example, in gross terms, the Asian region received foreign capital of around 5.7 per cent of aggregated Asian GDP in the 2000s, although net capital inflows were negative (i.e., there were net capital outflows). This fact implies that a potential channel for growth with foreign capital is still present in the Asian region, although it is a capital exporter in net terms.

Next, we look at country-level disaggregated data to get additional information, focusing on the post-AFC period. Figure 3 displays a scatterplot of five-year-averaged net capital inflows and GDP growth using the sample from 1998 to 2016. Plotted lines represent fitted lines for each country, estimated by the Ordinary Least Square (OLS) method. This exercise helps in understanding the medium-term interaction between capital inflows and the economic growth of each country.

FIGURE 3
Net Capital Inflows versus GDP Growth

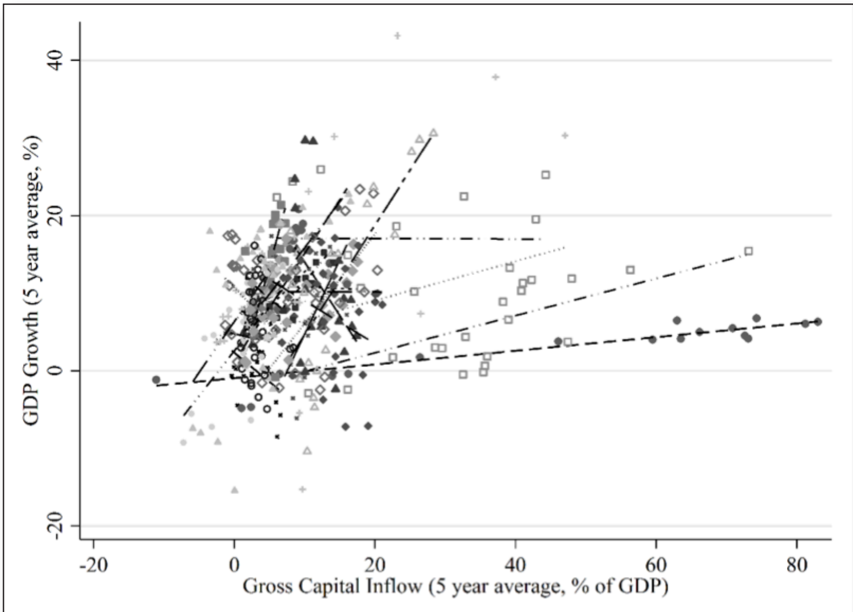


Source: The World Bank Group, *World Development Indicators: International Financial Statistics*, and author's calculations.

Figure 3 shows a negative correlation between the two variables in many countries. Similarly, if we use five-year-averaged investment growth instead of GDP growth, the relationship between investment and net capital inflow looks flat or even negative. These tendencies are consistent with the findings of previous papers related to the "allocation puzzle", wherein foreign capital tends to flow to developing countries with lower growth rates.

However, using gross capital inflow data provides a different picture. Figure 4 plots the interaction between gross capital inflows and GDP growth, in the same way as Figure 3. It shows that gross capital inflows are positively correlated with GDP growth in many countries. This result holds when we

FIGURE 4
Gross Capital Inflows versus GDP Growth



Source: The World Bank Group, World Development Indicators: International Financial Statistics, and author's calculations.

use investment growth. These figures indicate that not a few Asian countries recorded positive economic growth by importing foreign capital, if we focus on gross capital transactions.

Finally, we split the dataset to get additional information. There seem to be large differences between Asian countries, so this exercise can provide a better understanding of the region. Figure 5 summarises the regression coefficients of different types of net or gross capital inflows on GDP growth using post-AFC period data. This table splits the sampled countries into four groups: Asia (full sample); ASEAN; ASEAN excluding Singapore; and the original five ASEAN members (i.e., Indonesia, Malaysia, the Philippines, Singapore, and Thailand).

As shown in the full sample analysis, the coefficient of total net capital inflow is negative and significant (column 1, Panel A), consistent with Figure 3. The coefficients of net direct investment, portfolio investment, and other investment flows become positive, but they are not significant (columns 2-4, Panel A)[23]. In contrast, the coefficients of gross capital inflows are mostly positive and significant (columns 5-8, Panel A), which corroborates the suggestion that observing gross capital flows provides different or additional information, as shown in Figures 2-4. We confirmed that analysis by using a Non-OECD Asia sub-sample, which provided results similar to the full sample estimates (not reported here).

FIGURE 5
Regression Coefficients of Capital Flows on GDP Growth

	Net Capital Inflow				Gross Capital Inflow			
	Total	Direct Investment	Portfolio Investment	Other Investment	Total	Direct Investment	Portfolio Investment	Other Investment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Asia (Full Sample)								
GDP Growth	-0.291**	0.245	0.030	0.107	0.250**	0.540***	0.705	0.179*
	(0.137)	(0.257)	(0.316)	(0.129)	(0.110)	(0.098)	(0.437)	(0.092)
Observation	377	437	407	503	439	521	451	516
R^2	0.008	0.089	0.012	0.000	0.018	0.029	0.003	0.005
Panel B: ASEAN								
GDP Growth	-0.692**	-0.223	1.325**	0.533**	0.417**	0.614*	1.890**	0.544*
	(0.214)	(0.446)	(0.389)	(0.191)	(0.154)	(0.313)	(0.574)	(0.244)
Observation	111	132	124	149	122	167	135	161
R^2	0.016	0.005	0.021	0.108	0.015	0.000	0.036	0.014
Panel C: ASEAN (excl. SGP)								
GDP Growth	-0.588**	-0.234	2.412**	0.643**	0.754*	0.608	2.083**	1.393***
	(0.233)	(0.552)	(0.975)	(0.196)	(0.326)	(0.448)	(0.837)	(0.380)
Observation	92	113	105	130	103	148	116	142
R^2	0.014	0.016	0.034	0.131	0.208	0.015	0.033	0.131
Panel D: ASEAN5†								
GDP Growth	-0.804**	-0.968*	1.309**	0.345	0.404*	0.449	1.877**	0.422*
	(0.233)	(0.414)	(0.400)	(0.569)	(0.163)	(0.298)	(0.649)	(0.172)
Observation	82	95	95	82	82	95	95	82
R^2	0.011	0.030	0.009	0.018	0.017	0.000	0.134	0.032

Note: The dependent and independent variables are 5-year-averaged GDP growth and 5-year-averaged capital inflows, respectively. All specifications include constant and country-level fixed effects. Country-clustered standard errors are reported in parenthesis. ***, ** and * denote significance at the 1, 5 and 10 per cent levels, respectively. †ASEAN 5 refers to Indonesia, Malaysia, Philippines, Singapore, and Thailand.
Source: The World Bank Group, World Development Indicators: International Financial Statistics, and author's calculations.

Next, we present the results of three ASEAN sub-samples. Although the coefficients of total net capital inflows are negative and significant (column

23 This result implies that changes in reserves are a candidate to solve the "allocation puzzle".

1, Panels B-D), the coefficients of portfolio investment and other investment inflows stay positive and significant, regardless of net or gross flows (columns 3, 4, 7, and 8, Panels B-D). This implies that portfolio investment and other investment flows are channelled to growing economies.

The results of direct investment flows are also worth mentioning. According to the table, the relationships between net/gross direct investment flows and GDP growth have little correlation (columns 2 and 6, Panels B-D). The coefficients show both positive and negative values, and their significance is not robust. This result does not strongly support the standard catch-up growth scenario of developing countries importing foreign, long-term stable capital. Similar results are obtained when we use investment growth instead of GDP growth.

CONCLUSION

This article explored the relationships between capital inflows and economic growth in Asian countries. Preliminary exercises uncovered some findings. First, although the relationship between total capital inflows and economic growth is negative or flat based on net capital inflows data, it becomes positive when focusing on gross capital inflows data. This finding implies that the typical catch-up growth path using foreign capital is still prevalent in Asian countries, despite the fact that they are net capital exporters.

Second, the relationship may vary, depending on country groups and types of inflows. Most interestingly, the relationship between direct investment flows and economic growth in ASEAN members is unclear, according to the preliminary analysis, which casts doubt on the effectiveness of foreign direct investments flows to the region.

The general image of Asia as a capital exporter to the world is mainly based on net capital transactions data. As described above, a different picture emerges if we focus on gross capital transactions data. Indeed, this analysis is just a preliminary exercise. Further analysis will be necessary to obtain more detailed information, such as causal relationships.

Part I: Question-and-Answer Session

Note: Q, A and C refer to Question, Answer, and Comment, respectively.

Q (Kikuchi):
Global liquidity crisis, falling real incomes, weak productivity, and the increasing use of technology, and multipolarity between the economies. If labour retraining and skills development can be an effective tool to address some of these woes, do you think that this is a matter of policy? How can different countries implement that policy?

I would also like to hear your opinion on the prospects of greater independence for the CMIM from the IMF.

A (Tiwari):
In future, skills development will become one of the most important aspects for growth and labour mobility, especially as technology gradually replaces human jobs. As for the CMIM and IMF, I think that Asia can take great responsibility and cooperate more with international organisations. Asia will be the biggest region to benefit from global growth. Therefore, it will be expected to contribute to global stability.

Q (Kikuchi):
What do you think of India's prospective participation in the CMIM framework?

A (Tiwari):
India for now is not a committed member of any bilateral swap agreements or major swap frameworks. Therefore, it is natural and expected that India will develop in that direction. Such commitment may signal well with many investors and economic actors, so it may be expected that India's future participation in such frameworks will be of great significance.

Q (Sakuragawa):
From 2011, China's annual GDP growth rate went down to 6–7 per cent, while credits expanded at the rate of 15 per cent. What do you think of the sustainability of the banking system in China, considering the shadow banking system and the risk of a financial crisis in China's banking sector?

A (Tiwari):
I agree that shadow banking in China is a risk. A soft landing in China will critically depend on whether it can unwind this shadow sector. Having said that, China has strong buffers and strong savings. Ideally, China would create a soft landing not by using its reserves but by implementing a sound and consistent monetary policy.

Q (Mieno):
Organisational rating systems are very crucial. I wonder how good the evaluation systems of corporate bonds and the CGIF are.

A (Kawai):
Rating agency practices should be better harmonised. As each local rating agency tries to update its practices to a higher standard, these practices should converge towards a global good practice. Globally, we have Standard & Poor's, Moody's, and Fitch. Their vary, implying that full harmonisation may not be easy. A suggestion is to set up an Asian rating agency to function as a regional organisation for all local rating agencies, which will be its shareholders. This agency could eventually evolve into a global-scale rating agency. The CGIF makes its own judgements about credit risks. It decides to take some risks and encourages the issuance of corporate bonds. It is a unique institution.

Q (Kikuchi):
The growth of the local bond market is significant. I would like to know how the local currency denominated bond market growth compares to the US dollar bond market growth and where the demand is coming from for local currency denominated bonds?

A (Kawai):
Demand for local currency denominated bonds comes from different players, local and international, and banks and non-banks. I do not have data to compare the growth trend between US dollar bonds and local currency denominated bonds.

C (Kawai):
Tobe's data show that in Asia there were different relationships between capital flows and growth. He should examine whether the correlations are statistically significant across countries and groups. Ideally, in his exercise he may want to run a Barro-type growth regression by using other control variables. A classification that includes the South Pacific countries may not be appropriate; the Pacific island nations are better separated from Asia. It is an especially important separation since the Pacific island states as a region depend heavily on official development assistance (ODA), which creates large capital inflows but in a way different in structure from most of Asia.

Q (Kimura):
ASEAN's FDI inflow and machinery production networks have been growing. Some Singapore and Malaysian firms are taking secondary cycle FDIs into other ASEAN countries. There are now different applications and ways to deliver, transport, and organise finances. Sovereign wealth funds can become more important players, along with the new features of network economies. We often have data problems in FDI in defining countries of origin for the source of earnings. This is especially true for the capital portions of FDI. Sometimes, evaluation of definitions and going back to the literature can be useful.

A (Lee):
My understanding on China has been that Chinese investment has been up across the globe, but I do not have the data at this time. ASEAN investment in China is very big, with Singapore being China's leading FDI investor.

Q (Kikuchi):
I think you said Singapore gets half of the FDI flowing into ASEAN and that intra-ASEAN FDI has been growing, too. How much of Singapore's FDI in the other ASEAN countries is actually carried out by Singapore, not by other actors using Singapore as a financial hub?

A (Lee):
Intra-ASEAN FDI is the largest source of FDI, not FDI originating from the United States or Europe. One issue is that reinvestment of finances within global value supply chains makes it more difficult to track the flow of FDI. Another issue may be the redirecting of funds by some members of ASEAN into other countries, for example, Singapore re-investing money in other places. Besides, it may be difficult to track the origins of finances, although we consider as country of origin a place where a company's headquarters are located.

Q (Yanagida):
Actually, Japan's investment has not been stagnating or declining. Contrary to Lee's presentation, Japan's investment has actually been rising. Also, it seems that the trend is to study individual countries more as such study is more interesting and allows deeper understanding.

A (Lee):
Japan's investment has been not stagnating on all accounts, and I have the data to support that. I agree that there is more interest to study individual countries in terms of FDI, their structures, and their competitive advantages.

Q (Kikuchi):
I would like to learn more about bank debt financing, as compared to equity debt financing. The typical path is that countries rely on banks and then build up equities. You mentioned that firms in Asia seek mostly equities for expansion, and family-owned businesses enjoy good banking access and are therefore reluctant to issue equities.

A (Mieno):
The mainstream argument is that debt financing was a major cause of the financial crisis, and I argue that even family businesses are not very dependent on debt financing, but on equity of the self-financing kind. Financing from the debt markets is low.

Q (Sakuragawa):
You are thinking about the importance of the micro structure for financial markets and asymmetry of information between lenders and borrowers.

A (Mieno):
I agree that estimating the risks of bond markets is difficult. But there has been major improvement in the methods of risk estimation. Most bond issuing companies are publicly listed companies. Being listed in the securities markets is one of the most important avenues of information sharing.

C (Mieno):
Internal finance usually means trade finance. Especially within ASEAN, where internal capital transactions are significant. There is a demand for long-term capital beyond market-based transactions. The type of transactions can be constrained when borrowing in emerging markets owing to information asymmetry, especially for banks. On the other hand, securities can raise a lot more capital than banking. In ASEAN, most major conglomerates are family-owned and do not really pursue securities issuance and market capitalisation. One may wonder about the demand for external fund raising in the markets of ASEAN, and this is indeed a trend that requires further inquiry, on the structure of such demands and the origins of such demands. Bond markets are not sufficient to finance infrastructure development in emerging ASEAN markets. Therefore, multilateral initiatives and public spending, through governments, remain very large. Examples go beyond China and include Singapore and Malaysia. And, it seems like even with the emerging role of corporate bond markets, the role of public spending might remain substantial

Part II

The Development of Financial Cooperation

The ASEAN+3 Regional Financial Safety Net

20 Years On

Pradumna B Rana

INTRODUCTION

Following the Asian Financial Crisis (AFC) of 1997–1998, policy-makers in ASEAN+3 were keen to establish a regional financial safety net (i.e., a regional "self-help" mechanism) to protect themselves from future financial crises. After the proposal to establish an Asian Monetary Fund was shot down, the key component of the ASEAN+3 Regional Financial Safety Net (RFSN) was the Chiang Mai Initiative (CMI) bilateral swaps among member countries initiated in 2000. By 2008, the ASEAN+3 countries had signed 16 bilateral swaps among themselves amounting to a total of US$86 billion. Most of these swaps were denominated in US dollars and the rest in Japanese yen and Chinese yuan. Early on, only 10 per cent of the swap amounts were readily available, with 90 per cent linked to an IMF program. The size of the IMF-delinked portion was increased to 20 per cent in 2005. The ASEAN+3 RFSN has, therefore, sought to promote ad hoc collaboration with the IMF.

The CMI swaps were not utilised during the severe credit crunch that regional countries experienced during the global financial crisis of 2007–2008. Instead, countries that needed liquidity at that time (such as Korea, the Philippines, and Singapore) triggered their swaps with the US Federal Reserve. The reasons that the CMI swaps were not used were the small amounts and the absence of a rapid response mechanism to trigger the swaps (each bilateral swap had to be triggered one at a time).

Since then, ASEAN+3 has taken a number of actions to increase financial resources available from its RFSN and to clarify the disbursement procedures. These include (i) multilateralising the CMI bilateral swaps to the Chiang Mai Initiative Multilateralisation (CMIM) and doubling its size, (ii) increasing the delinked portion to 30 per cent with a view to increasing it further to 40 per cent, subject to review (iii) agreeing to a decision-making process and operational guidelines, and (iv) establishing the ASEAN+3 Macroeconomic Research Office (AMRO) in 2011 as the independent surveillance unit for the CMIM and giving it the status of an international organisation in 2016 with a mandate for surveillance of the member countries either individually or collectively.

This paper focuses on two questions: (i) Twenty years on, are these actions sufficient to ensure that the ASEAN+3 RFSN will be used when the region faces the next crisis, and, (ii) If not, what should be done?

EVALUATION OF AD HOC COLLABORATION

As Hill and Menon[24] have argued, under the latest CMIM agreement, five ASEAN members (Indonesia, Malaysia, Philippines, Singapore, and Thailand) can borrow a maximum amount of approximately US$23 billion each from the CMIM with an IMF program in place — one-third of which will be the delinked portion — under a single contract at one go.[25] These amounts are large compared to the old CMI swaps, but still inadequate to prevent and manage the newer types of capital account crisis associated with large inflows and sudden withdrawals of short-term financial capital.[26] It is unlikely that the ASEAN+3 countries will increase their commitments to the CMIM and increase the percentage of the delinked portion without the capacity of AMRO being strengthened significantly for regional surveillance and for designing conditions under which funds can be loaned out (to avoid moral hazard). Although AMRO has come a long way and has done a commendable job, as a relatively new institution, it still lacks the research capacity, human resources, and experience to serve as an "independent surveillance unit" for the CMIM.

More important is the speed and efficiency with which requests for

24 H. Hill and J Menon, "Financial Safety Nets in Asia: Genesis, Evolution, Adequacy and Way Forward," in *New Global Economic Architecture: The Asian Perspective,* ed. M. Kawai, P. Morgan, and P. Rana (London: Edward Elgar, 2014).

25 Korea and Japan are entitled to borrow a maximum of US$38.4 billion from the CMIM with an IMF programme in place. China can borrow approximately US$35 billion, Vietnam US$10 billion, and Cambodia, Laos, and Myanmar approximately US$1 billion each.

26 The economic and social costs and the contagion effects of a capital account crisis tend to be high. During the recent Eurozone crisis, two separate packages of US$142 billion and US$130 (in today's dollars) were put together for Greece and US$100 billion for Portugal.

assistance can be disbursed.[27] The operational guidelines for the CMIM note that a decision based on a 2/3s majority is to be made within two weeks of the swap request. This is unlikely to happen as the CMIM is not a centralised fund, but a "self-managed" arrangement where contributions are held by individual central banks and monetary authorities. Also, the decision rests with a non-resident body and there is uncertainty regarding the nature of information and the analysis required to facilitate the decision-making. In contrast, bilateral swaps with advanced countries are fast disbursing and come without explicit conditionalities (as they are well collateralised).

FROM AD HOC TO STRUCTURED FUNCTIONAL COLLABORATION

Rana and Pardo[28] and Pardo and Rana[29] have argued that the ASEAN+3 countries and IMF, therefore, need to move beyond ad hoc collaboration to develop a more structured form of functional cooperation by pooling financial, human, and technical resources. They note that although it is not an ideal system,[30] an arrangement worth considering is the IMF's cooperation with various European RFSNs[31] to resolve the Eurozone crisis. In Europe, countries that are members of both the European Union and IMF request financial assistance simultaneously from the two institutions.[32] In the case of assistance to EU members outside of the Eurozone, discussions are conducted jointly with local government authorities, the European Commission (EC), and the IMF.

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27 H. Hill and J Menon, "Financial Safety Nets in Asia."

28 P. B. Rana and R. P. Pardo, "ASEAN+3 and the IMF: The Need for a Marriage of Convenience," *Global Asia*, Vol. 10, No. 1, Spring 2015.

29 R. P. Pardo and P. B. Rana, "Complementarity between Regional and Global Financial Governance Institutions: The case for ASEAN+3 and the Global Financial Safety Net," *Global Governance*, 21, 2015, 413–433

30 See D. Zsolt, "Regional and Global Financial Safety Nets: The Recent European Experience and Its Implications for Regional Cooperation in Asia" in *Global Shocks and The New Global and Regional Financial Architecture: Asian Perspectives*, ed. N. Yoshino, P. J. Morgan and P. B. Rana (Tokyo: Asian Development Bank Institute, forthcoming).

31 The European Financial Stabilization Mechanism (which provides balance of payments support to all EU members) and the European Stability Mechanism (which safeguards against financial crisis in the Eurozone countries).

32 International Monetary Fund, "Stocktaking of the Fund's Engagement with Regional Financing Arrangements," April 2013.

In addition, the European Central Bank (ECB) participates in discussions when the borrowing country is in the Eurozone, thus forming the "Troika" framework between the IMF, EC, and ECB. In designing policies and conditionalities, there is a clear division of labour, with the IMF focusing on the macroeconomic framework, the EC ensuring that conditionality is consistent with EU-wide rules and institutions (particularly with fiscal targets), and the ECB ensuring that the financial sector strategy is sufficiently robust. The "Troika" members discuss the programme among themselves before putting it up to the authorities. Two separate programme documents are prepared, one for the IMF board and another for the EC. Programmes are co-financed with no single rule for burden-sharing between the IMF and European RFSNs. In Latvia in 2008 and Greece in 2012, the IMF provided about 20 per cent of the total financing while European RFSNs provided the balance. On the other hand, in Hungary in 2008 and Romania in 2009/2011, the IMF provided over 60 per cent of the financing.

The IMF's assessment of this cooperation is that although the difference of views among institutions continues to pose a challenge, "On the ground, the Troika structure has enabled effective information sharing, more streamlined program discussions and reviews, and helped ensure that external communications are well coordinated".[33] The recent report by the Independent Evaluation Office of the IMF, highlighting the IMF's lending to Greece and Ireland in 2010 and Portugal in 2011, also finds that the troika arrangement proved to be an efficient mechanism in most instances "but the IMF lost its characteristic agility as a crisis manager". This loss of agility happened "because the European Commission negotiated on behalf of the Eurogroup" and "subjected IMF's technical judgement to political pressure from an early stage".[34]

Since the present modality of cooperation between the ASEAN+3 RFSN and IMF is unlikely to be successful, Rana and Pardo[35] and Pardo and Rana[36] have proposed a more structured form of functional cooperation between

33 International Monetary Fund, "Stocktaking of the Fund's Engagement with Regional Financing Arrangements," 22.

34 Independent Evaluation Office, "The IMF and the Crises in Greece, Ireland, and Portugal: An Evaluation by the Independent Evaluation Office," International Monetary Fund, 2016.

35 P. B. Rana and R. P. Pardo, "ASEAN+3 and the IMF."

36 R. P. Pardo and P. B. Rana, "Complementarity between Regional and Global Financial Governance Institutions."

the two institutions. This framework would involve the pooling of financial, human, and technical resources between the ASEAN+3 RFSN and IMF in the following three cooperative activities.

(i) As in Europe, ASEAN+3 countries seeking financial resources should be required to apply simultaneously to both the IMF and CMIM, and the IMF and AMRO should jointly analyse and evaluate the applications. Currently, the analyses and evaluations done by the two institutions are separate, with AMRO responsible for CMIM funds. But AMRO's capacity, although increasing, is still limited and it will take a long time to strengthen it. Involving both the IMF and AMRO in the analysis and evaluation process would increase its robustness in two ways. Firstly, experts from outside East Asia would support an understaffed AMRO and they would face less political pressure and perhaps avoid bias during meetings with CMIM members. Decisions on applications could therefore be made more rapidly and involving IMF staff, who, at least in theory, should be more dispassionate about the country requesting a CMIM package. A crisis triggering an application for CMIM funds would need a decision to be made in the shortest period of time and with the least moral hazard possible. IMF and AMRO intervention in the decision-making process would help both. Secondly, joint application to both the IMF and CMIM would help address the IMF stigma in East Asia post-AFC.

(ii) The second area of cooperation between ASEAN+3 and IMF should be in the area of joint monitoring and surveillance, joint missions, and joint conditionality. Given that IMF and AMRO analysis have the common goal of ensuring that signs of financial vulnerability are caught well on time to prevent a possible crisis, it would make sense for the two institutions to pool their capabilities. The two institutions should focus on their respective comparative advantages — the IMF on macro and micro financial and cross regional experience and AMRO on regional financial and capital market developments and structural reforms.

AMRO staff are from ASEAN+3 countries, giving them familiarity with one or more countries in the region — including relevant language skills and cultural understanding. For its part, the IMF is better resourced and has staff with knowledge about macro and financial systems in different parts of the world. Pooling their resources through joint IMF-AMRO missions and analysis (including joint conditionality) would strengthen the surveillance mechanism.

(iii) The third area of cooperation should be co-financing and joint supervision of liquidity provision programs. Currently, financing would only come from the CMIM pool, which, as explained above, would probably be insufficient to avert the spread of a financial crisis. Co-financing with the IMF would substantially increase the resources available for ASEAN+3 to deal with a financial crisis. As the experience of joint EU-IMF programmes shows, the percentage of a total rescue package coming from the RFSN and the IMF can be negotiated on a case-by-case basis. Also, joint supervision of any approved liquidity provision programme would be the natural consequence of joint approval and financing.

The timing is also appropriate for a more structured form of complementarity between the ASEAN+3 RFSN and the IMF for two reasons. First, after the AFC, countries in the region felt they were unfairly treated and forced to accept inappropriate conditions by the IMF. This is now changing to some extent (see next paragraph). Second, AMRO is now an international organisation with a mandate from the ASEAN+3 countries to conduct policy dialogues and surveillance of member countries on either an individual or collective basis. The IMF should, therefore, invite AMRO staff to join its crisis management missions and seek their views and inputs in designing conditionality.

In addition to a structured form of cooperation with the IMF, ASEAN+3 should convert the CMIM into a centralised fund and merge it with AMRO, its surveillance arm.

RECENT EFFORTS TOWARDS STRUCTURED FUNCTIONAL COOPERATION

A number of steps have been taken by AMRO and IMF to promote structured cooperation, either individually or jointly. AMRO has substantially strengthened its surveillance capacity. In addition to the confidential reports that it presents at ASEAN+3 meetings, since 2017 it has started posting an annual ASEAN+3 Regional Outlook Report and monthly updates on its website. In addition, in order to qualify countries for its precautionary facility it is compiling the Economic Review and Policy Dialogue (ERPD) matrix.

In July 2017, the IMF Board discussed the "Policy Paper on Collaboration between Regional Financing Arrangements and the IMF".[37] Based on its experiences of working with RFSNs in Europe, the Middle East, North America, the former Soviet Union, and CMIM (through its test runs), the IMF has derived 7 lessons, 6 principles,[38] and 4 modalities that could be considered in collaborating with RFSNs. Among the lessons, two are worth pointing out: (i) enhanced (structured) collaboration between the IMF and RFSNs could be beneficial, and (ii) such collaboration should be "early and evolving". The IMF Board has also discussed its "Policy Paper on the Exchange of Documents between the Fund and Regional Financing Arrangements".[39]

AMRO and IMF joint activities have increased in recent years. For example, the 5th AMRO-IMF Joint Seminar was held recently. Joint CMIM test runs have been made and the staff of the two institutions exchange visits regularly.

In October 2017, AMRO and IMF signed a Memorandum of Understanding (MOU) to promote cooperation in the areas of information exchange, capacity building, and joint seminars. They should build up on this landmark MOU and promote collaboration in the three functional areas of joint analysis and evaluation; joint missions, surveillance, and joint conditionality focusing on the comparative advantages of the two institutions; and co-financing.

37 International Monetary Fund, "Policy Paper: Collaboration between Regional Financing Arrangements and the IMF," July 2017.

38 These principles are similar to those endorsed by the G20 in 2011 (G20 2011)

39 International Monetary Fund, "Policy Paper: The Exchange of Documents between the Fund and RFAs," January 2018.

The Politics of East Asian Financial Agreement

The Case of the CMIM

Kaewkamol Pitakdumrongkit

INTRODUCTION

After the Asian Financial Crisis of 1997–8 (AFC), East Asia witnessed an unprecedented degree of regional financial cooperation. The East Asian states' realisation of their economic vulnerabilities and aversion towards assistance from the International Monetary Fund (IMF) invigorated the policymakers to deepen financial regionalism.[40] Several ideas were proposed, including the stillborn Asian Monetary Fund (AMF). While the AMF proposal was rebuffed by the United States and IMF, the idea of a regional funding mechanism continued to be examined.[41] In 2000, the ASEAN+3 financial cooperation process was set up, which has formulated several regional financial governance architectures in the areas of reserves-sharing, which were later formalised as the Chiang Mai Initiative Multilateralisation (CMIM), capital market development (Asian Bond Markets Initiative or ABMI for short), and surveillance mechanisms (Economic Review and Policy Dialogue or ERPD, for short, and the ASEAN+3 Macroeconomic Research Office or AMRO, for short).

The CMIM (and its predecessor CMI) were to provide short-term liquidity assistance through a network of currency swaps in case of balance of payments difficulties. The ABMI is aimed at developing local currency bond markets to encourage the use of Asian capital to fund Asian invest-

40 T. J. Pempel, "Firebreak: East Asia institutionalizes its finances," in *Institutionalizing Northeast Asia: Regional steps towards global governance*," ed. M Timmerman and J. Tsuchiyama, (Tokyo: United Nations University, 2008): 234–261; K. Calder and M. Ye, "Regionalism and critical junctures: Explaining the 'Organization Gap' in northeast Asia," *Journal of East Asian Studies*, 4 (2004): 191–226.

41 H. Chey, "The changing political dynamics of East Asian financial cooperation: The Chiang Mai Initiative." *Asian Survey*, 49, No. 3 (May/June 2009): 450–67.

ment and other activities, hence tackling a double mismatch problem.[42] The surveillance entities function as fora for information sharing and analysing the financial and macroeconomic policies and conditions of the ASEAN+3 economies in order to identify economic vulnerabilities and recommend appropriate policy solutions.

This paper aims to explore the following question: What shapes the development of the ASEAN+3 financial architectures? I argue that international politics plays a significant role in advancing financial regionalism. To validate my argument, the international political dynamics are examined through the case of the CMIM.

My paper is organised as follows. First, it outlines the CMIM's progress. The second part examines the remaining challenges, including political elements, facing the mechanism. The third section provides policy recommendations for the ASEAN+3 governments to push forward the initiative's development, which is followed by discussions on leadership in further advancing the scheme. I conclude that clear leadership is absent in the ASEAN+3 financial cooperation process, and, without it, the future development potential of the East Asian financial governance could be hindered.

PART I: ACHIEVEMENTS SO FAR

Progress has been made since the establishment of the ASEAN+3 process. Illustratively, the size of CMIM increased from US$80 billion to US$120 billion in 2009, and then to US$240 billion in 2014. The IMF de-linked portion[43] was originally 10 per cent of the members' maximum borrowing amount, then doubled to 20 per cent in 2005. In 2014, this portion was raised again to 30 per cent, and the CMIM Precautionary Line (CMIM-PL), a crisis-prevention liquidity assistance facility, was introduced. In 2017, the revised CMIM operational guidelines clarifying the activation process of

42 Double mismatch comprises: (i) a maturity mismatch — a mismatch between debt maturities as a result of utilising short term borrowing to finance long-term investments, and (ii) currency mismatch — a disparity between the denomination of debts (i.e., debts are denominated in foreign rather than local currencies).

43 The de-linked portion allows the members to borrow up to a certain percentage of the maximum amount of drawings from the CMI/CMIM currency swaps without an IMF programme.

the IMF-delinked portion were adopted.

As for surveillance mechanisms, the ASEAN+3 authorities agreed to establish AMRO in 2011. In 2014, the governments signed the AMRO Agreement to transform the mechanism into an international organisation. This agreement took effect in February 2016, and AMRO began to function as an international organisation in Singapore. Also, the central bank governors of the ASEAN+3 member states have joined the ERPD since 2012. The entity receives inputs from AMRO through its reports and analyses.

Additionally, collaboration among regional and global surveillance bodies heightened. For instance, AMRO signed an agreement with the IMF in October 2017 to boost inter-institutional cooperation "by exchanging views related to macroeconomic surveillance, providing training for staff, other capacity building and joint research projects and seminars."[44] Since then, these two bodies have co-hosted seminars and conferences for policymakers to discuss regional financial and macroeconomic matters.

PART II: REMAINING CHALLENGES

Despite the progress made, the CMIM has a number of operational and technical issues in need of optimisation. For example, the latest 7th test run examining the operability of CMIM-IMF arrangements under simulated scenarios revealed some fundamental issues and concluded that CMIM-IMF collaboration and AMRO capacity should be strengthened. Meanwhile, the conditionality framework and qualification indicators for the CMIM-PL are being developed.

The 20th ASEAN+3 Financial Ministers and Central Bank Governors' Meeting (FMCBG) in May 2017 recognised uncertainties in the world economy such as protectionist policies and sharper-than-expected financial tightening. However, their concerns did not translate into tangible advancements in regard to the regional reserve-sharing instrument. Neither the CMIM size nor its de-linked portion has been further raised. The CMIM size has stood at US$240 billion since 2014, which is insufficient to support

44 IMF (2017). "The International Monetary Fund (IMF) and the ASEAN+3 Macroeconomic Research Office (AMRO) Agree to Enhance Cooperation." Press Release No. 17/395, 11 October, 2017.

the ASEAN+3 economies should the next crisis strike. With this amount, the CMIM can at best assist a few small to medium economies. Also, the IMF delinked portion has been at 30 per cent since 2014. In other words, for a member to draw on more than 30 per cent of its maximum borrowing amount from both the CMIM Stability Facility (CMIM-SF) and the CMIM-PL, it must first sign onto the IMF structural assistance programmes. Such a requirement constrains the CMIM's ability to provide liquidity support in time for the members to manage financial crises as getting the Fund's agreement may take time.

Moreover, AMRO and its activities may not be able to completely break free from international politics. This is mainly because AMRO's activities are overseen by an Executive Level Decision-Making Body (ELDMB) comprising ASEAN+3 deputy finance ministries and deputy central bank governors.[45] ELDMB's tasks are "to maintain strategic oversight of AMRO including providing guidance and setting broad policy direction for the management of AMRO, and … appoint AMRO Director and Advisory Panel members."[46] Additionally, that the entity's director and deputy director positions are occupied by nationals from the Northeast Asian countries may further indicate that sovereign politics has cast a shadow over AMRO's operations.

PART III: POLICY RECOMMENDATIONS

To further move forward East Asian financial regionalism, ASEAN+3 policymakers should do the following. First, they should bolster the CMIM by increasing its size and its IMF de-linked portion as well as clarifying the lending conditions and criteria for activating the CMIM-PL. Doing so will enhance the mechanism's capability to supply financial support to the members.

Also, the coordination between the CMIM and IMF should be further enhanced in terms of co-lending, surveillance, and capacity training. For instance, the relevant stakeholders should devise modalities to make the Fund's and CMIM's conditionalities (e.g., length of arrangements and repay-

45 K. Pitakdumrongkit, "Where to now for the Chiang Mai Initiative Multilateralisation?" *East Asia Forum*, August 28, 2015.

46 AMRO, "Organization Chart," http://www.amro-asia.org/about-amro/organization-chart/

ment periods) more synchronised for smoother co-financing. Also, both financial safety nets should increase information sharing. Doing so would not only help monitor macroeconomic conditions in the region in "peace" times, but also gear these entities with data crucial for designing currency swap arrangements and disbursing financial support in a timely manner should the members want to tap the facilities

Moreover, there should be greater representation for Southeast Asia in AMRO's senior management. Such a change would allay the criticism regarding power plays in the CMIM. For example, having someone from one of the ASEAN countries as the director or deputy director could raise AMRO's legitimacy as an international organisation of all ASEAN+3 countries, not just that of the +3 states, which are the potential lenders.

PART IV: LEADERSHIP ISSUES

To effectively advance East Asian financial cooperation, leadership is required.[47] The recommendations above cannot materialise by themselves. Certain agents or states need to champion and push forward these ideas. Hence, a pressing question becomes: Who can assume a leadership role?

The three possible scenarios outlined below are derived from the weighted voting assigned to CMIM members. The CMIM's decisions on executive issues (e.g., disbursements of financial support) are governed by a 2/3s super-majority voting system, and Japan, China (including Hong Kong), and ASEAN as a bloc hold equal votes of 28.41 each. Thus, leadership by them is explored. Moreover, South Korea's leadership is also explored because, despite having only 14.77 votes, the state possesses the power to cast a determining vote when China, Japan, and ASEAN vote differently on lending decisions. For instance, suppose ASEAN and China (or Japan) vote to activate lending while Japan (or China) votes against it. Their combined votes constitute only 56.82 (28.41+28.41), which is under the 2/3s super-majority threshold. To pass this threshold, these entities must convince Seoul to vote in their favour. In these circumstances, South Korea becomes a veto power in effect.

47 B. J. Cohen, "Finance and Security in East Asia," in *The Nexus of Economics, Security, and International Relations in East Asia,* ed. Avery Goldstein and Edward D. Mansfield (Stanford, California: Stanford University Press, 2012): 39–65.

The first possible scenario involves a co-leadership between China and Japan, meaning both states together provide leadership and push forward the CMIM progress. Such co-leadership is more likely than leadership by either Beijing or Tokyo due to power rivalry between them. Also, both states are likely to have an incentive to co-lead to shape outcomes as they are potential lenders and the biggest contributors to the initiative. Although both agreed in May 2017 to enhance their bilateral financial and monetary cooperation, Beijing and Tokyo are still playing their contestation game. Illustratively, the latter has not joined the Asian Infrastructure Investment Bank (AIIB) created and led by the former. Furthermore, instead of working together to beef up the CMIM's capability, China and Japan have established their own separate bilateral currency swap networks within the region through the People's Bank of China and the Bank of Japan, respectively.[48] Therefore, the jury is still out on the extent to which Beijing and Tokyo can move beyond their rivalry to jointly lead the ASEAN+3 process.

The second scenario involves South Korea's leadership. One analysis revealed that the country was able to propose compromise solutions to reconcile the differences between China, Japan and the ASEAN countries but also shaped particular CMIM agreement details.[49] For instance, Seoul suggested an approach to calculate members' financial contributions that ended the Sino-Japan standoff, which could have led to the collapse of the multilateralisation talks.

Seoul may champion certain ideas, such as increasing the IMF de-linked portion and the size of the CMIM initiative, and rally the other parties to accede to these ideas. Proposals tabled by Seoul are likely to be well received by the ASEAN countries. This is because, unlike Beijing and Tokyo, South Korea is viewed by the ASEAN countries as a neutral player with no geo-political aspirations.[50] For instance, Seoul has never attempted to build up its own bilateral currency arrangement networks, which could jeopardise the development of CMIM. However, the extent to which South Korea can get buy-ins from China and Japan is unclear.

48 W. W. Grimes, "East Asian Financial Regionalism: Why Economic Enhancements Undermine Political Sustainability", *Contemporary Politics*, 21 No. 2 (2015): 145–160.

49 K. Pitakdumrongkit, *Negotiating Financial Agreement in East Asia: Surviving the Turbulence*. The Growth Economies of Asia Series (UK: Routledge, 2016).

50 Teo, S., Singh, B., & Tan, S. S. (2016). "Southeast Asian Perspectives on South Korea's Middle Power Engagement Initiatives." *Asian Survey*, 56(3): 555–580.

The third possibility is that the ASEAN 10 might supply leadership. Despite the fact that they are a lesser power compared to the +3 countries, one must not entirely dismiss their future influence over East Asian financial cooperation outcomes. These states have utilised certain mechanisms to get their interests addressed when bargaining with non-ASEAN participants. For instance, they have been found to use the "ASEAN Caucus", an in-group clique, to reach common positions and bargain as a bloc to increase their clout at the WTO, the Asia-Pacific Economic Cooperation (APEC), and CMIM negotiations.[51] Regarding the latter, the ASEAN countries on several occasions resorted to the ASEAN Caucus by holding their own meetings about one to two hours prior to, and one hour after, the official meetings in order to develop shared views and positions, which were later presented to their Northeast Asian peers. However, despite their use of the ASEAN Caucus, the fact that these ASEAN parties are potential borrowers might erode their influence over the future of regional financial agreements.[52]

In conclusion, the East Asian financial architecture needs to be beefed up in the governance, operational and technical areas. Also, it must be cautioned that the policy recommendations above cannot materialise on their own. Some of the states must take a leadership role in transforming these ideas into action. However, the paths towards such leadership for the ASEAN+3 countries face challenges. While Beijing and Tokyo are entangled in their tussle for regional leadership, the likelihood of South Korea and ASEAN assuming a leadership role is still unknown. Without such clear leadership, the prospects of enhancing the governance of the East Asian financial architecture seem modest at best.

51 N. Ganesan, "Thai-Myanmar-ASEAN Relations: the politics of face and grace," *Asian Affairs*, 33 No. 3 (2006): 131–149; B. Desker, "Asian Developing Countries and the Next Round of WTO Negotiations," RSIS Working Paper No. 18, 1 October 2001.

52 K. Pitakdumrongkit, *Negotiating Financial Agreement in East Asia: Surviving the Turbulence*. The Growth Economies of Asia Series (UK: Routledge, 2016).

Overview of AMRO and Policy Challenges

Keynote Speech by Dr Hoe Ee Khor
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ASEAN+3 Macroeconomic Research Office
Singapore

I would like to start by explaining what ASEAN+3 Macroeconomic Research Office (AMRO) is all about. Essentially, it is like the International Monetary Fund (IMF). We are supposed to conduct macroeconomic surveillance of the ASEAN+3 economies, focusing on the detection and analysis of risks and vulnerabilities, and then come up with policy recommendations for mitigating the risks in order to secure macroeconomic and financial stability. We also provide analytical and policy support for decision-making in the Chiang mai Initiative Multilateralisation (CMIM), which is a very large facility of US$240 billion, set up in the wake of the 1997 Asian Financial Crisis and the 2008 Global Financial Crisis, to provide short-term liquidity support to ASEAN+3 member economies if they are hit, or at risk of being hit, by a balance of payments shock. So, AMRO conducts macroeconomic surveillance and provides secretariat support for the CMIM. We have three core functions in AMRO:

I. Surveillance, very similar to what the IMF does. We visit member countries once a year, make an assessment of risks, vulnerabilities and policy options, and conduct policy dialogues with the authorities, after which we write up the consultation reports. Reports would normally take two to three months to write, and they are circulated to all the members and then published on our website (with the approval of the authorities), a practice established in 2017. We also publish an annual ASEAN+3 Regional Economic Outlook (AREO) report where we provide our assessment of the regional outlook and the risks, spillovers, and challenges facing the region.

II. Supporting CMIM. The Chiangmai Initiative was set up in the aftermath of the 1997 Asian Financial Crisis in the form of bilateral swaps between the central banks of the ASEAN+3 countries. The facility was multilateralised and renamed Chiangmai Initiative Multilateralisation (CMIM) in 2010 in the wake of the 2008 Global Financial Crisis. It is a very large facility, with US$240 billion, and is meant to operate as a second line of support for the regional economies in case of a similar event as in 2007, when the countries were hit by a temporary balance of payments shock. As most countries in the region are reluctant to approach the IMF for financial assistance, a regional self-help facility represented by CMIM was established. Countries would normally use their own resources first when hit by a shock, but if they need more resources, they can approach the CMIM to augment their reserves. In the event of a major crisis, even if the IMF is involved, CMIM can provide additional financing.

III. Technical assistance is the last core function. We work closely with other agencies such as the IMF and the Asian Development Bank (ADB) to provide technical assistance to countries such as Cambodia, Laos, and Myanmar to build up their capacity for macroeconomic surveillance and implementation of CMIM. This is a relatively new function, and more is expected to be done in future.

So, in short, AMRO is the product of the 1997 Asian Financial Crisis (AFC) and the 2008 Global Financial Crisis. The original idea by Japan to establish an Asian Monetary Fund in the aftermath of the 1997 Asian Financial Crisis fell through because of objections from the United States and the IMF; however, the initiative led to the establishment of the Chiang Mai Initiative in 2000, which evolved into CMIM, a quick dispersing financial facility, operating in US dollars. As the mechanism grew in scope and size, analytical and policy work is required to support the facility, and AMRO was set up to perform those functions.

The AFC was a critical milestone, a historical juncture for the Asian economies. It delivered many valuable lessons to policymakers and shaped the thinking, not only in the region but also in the advanced and other emerging markets economies, on how to fight financial crises. One key lesson, for instance, is that countries should focus more on capital flows and financial markets. Most of the crises that preceded the AFC were related to excessive spending by governments, leading to high inflation and large fiscal and current account deficits, whereas during the AFC much of the trouble was caused by excessive borrowing in foreign currency by the banks and corporate sector, followed by a sudden halt and massive capital outflows, the collapse in asset prices, and the unexpected contagion across the region. Starting with Thailand, the crisis spread quickly throughout the region. Financial markets suddenly became a source of major risk. In response to the crisis, many changes were made to policy frameworks and institutions by the authorities in the region to strengthen their financial systems and macroeconomic fundamentals. The IMF set up a capital markets department to do financial surveillance while the major central banks and regulators set up the Financial Stability Forum to oversee the global financial system.

Another lesson is that the exchange rate policy should be flexible and supported by reserves and policy buffers. During the AFC, the regional authorities actually came together to support the affected economies by providing reserves through swap lines between central banks as part of the financing program of the IMF. The CMIM is an evolution of that network of bilateral swaps into a multilateral framework. After the 1997 crisis, the region undertook painful reforms and was able to recover quickly and then sustain a relatively high and stable growth, such that it became the world's largest economic bloc, accounting for 27.2 per cent of global GDP.

There are currently several risks on the horizon that may affect the region's growth. The good news is that China's economy has avoided a hard landing, which is now a low likelihood risk, and most experts are no longer expecting a hard landing to happen. Chinese capital flight has also become a low likelihood risk. Together, this is good news for the regional economies, which are closely intertwined with China, through the regional supply chain, and trade and investment. The medium likelihood risks are, and both are materialising, the imposition of trade tariffs by the United States and the rapid tightening of global financial conditions, reflecting strong global growth and rising inflation. There are also the perennial risks of geopolitics, cyber security, and climate change.

Global financial safety nets expanded rapidly after the 2008 Global Financial Crisis. Much of this expansion was due to the establishment of major regional financial arrangements such as the CMIM, European Stability Mechanism (ESM), BRICS Contingency Reserve Arrangement (CRA), and bilateral swap arrangements. This expansion further strengthened the buffer against external shocks. Even more impressive is the increase in foreign exchange reserves of individual countries, which now stand at approximately US$12 trillion and are much bigger than the total size of multilateral financial resources. For example, Indonesia increased its reserves from about US$50 billion in 2008 to about US$130 billion in 2017, while Thailand's reserves rose from about US$90 billion to US$210 billion in 2017.

During the 1997 Asian financial crisis, bilateral cooperation was greatly boosted, with Japan taking the leadership in mobilising and providing financial assistance to the affected countries in the region. In light of this experience, bilateral cooperation has become an important element in the region's policy response toolbox. There are various facilities available for borrowing by the region's countries in the event of a crisis. The amounts of financing available to regional economies under bilateral swap agreements and CMIM facilities are equal to or higher than those of the IMF for several ASEAN countries.

AMRO's policy assessments frequently complement and sometimes diverge from the IMF's assessments. Thus, AMRO's surveillance provides an essential independent assessment and helps to bring diverse perspectives to bear on policy issues that may differ from the views of the IMF on those issues. Moreover, IMF policies are formulated with a global perspective in mind and they may sometimes lack regional perspectives and contextual adaptability. Therefore, they may not be well received by regional countries. As a regional organisation, AMRO plays an essential complementary role to the IMF in providing an independent regional perspective and helping to maintain macroeconomic and financial stability in the region.

Part II: Question-and-Answer Session

Note: Q, A and C refer to Question, Answer, and Comment, respectively.

Q (Kawai):
I think looking into the IMF and European Stability Mechanism is good, but the latter does not have a surveillance process and relies on the European Union in conducting that. Second, while the CMIM participants attach a stigma to the IMF, this view may not be shared by the members of the European Union. Finally, dominant members play an important role in any organisation, both inside and outside Asia.

A (Pitakdumrongkit):
China, Japan, and ASEAN have equal voting shares within the CMIM, and South Korea has less than that. However, since the CMIM supposes that important decisions are reached by a super-majority vote, or essentially by consensus, interchange and cooperation between actors becomes important. This is especially true if one of the major actors, China or Japan, does not support a clause, then getting South Korea and ASEAN on board is essential. Although China and Japan have cooperated on many counts, they are working to set up bilateral frameworks that circumnavigate the efforts of the CMIM. In that sense again, the roles of the smaller players, acting in unison, are increasingly important.

Q (Mieno):
China seems not to be very consistent with the main tenets of Asian regional policies, consistent in its commitments to the environment and to regional frameworks in economic and financial organisations. What will be the future trends in China's relations with regional organisations?

A (Pitakdumrongkit):
Politics does play an important role. There is jostling for leadership positions in the global order, and this trend may evolve as the global system keeps adjusting to the new growth trends in Asia.

Q (Mieno):
China and Japan cooperated on AMRO. However, does any of this influence the organisation's operations? In addition, is the CMI's capacity constrained by the IMF and its regulations? Are they actually complementary, given that the IMF is much bigger?

A (Khor):
The CMIM was essentially Japan's baby, in response to the Asian Financial Crisis. However, all participants, including its two major economy-participants, China and Japan, are fully in support of the broad objectives of AMRO and CMIM. There has been steady progress in strengthening the institutions and making them operational. Some may argue that the progress could have been faster, but it is normal to have differences of views among the participants, including members other than China and Japan. Consensus seeking is a major feature of ASEAN politics. Nonetheless, there has been substantial progress in addressing differences of views on important issues and institutionalising the surveillance process, operationalising the CMIM, enhancing cooperation with other international organisations, as well as deeper monitoring and analysis of relevant sectors. We can expect that such steady progress will continue. Also, the complex bureaucracies of larger economies require greater efforts to coordinate. Regarding the IMF, although its resources are much larger, it suffers from a stigma, and access to some of its funds is limited to the bigger well performing economies. Besides, the IMF has a more global mandate, while AMRO's role can be viewed as complementary to the IMF in terms of its exclusive and unique focus on the region.

Q (Lee):
As one of the risks, you mentioned potential trade restrictions and tariff imposition. I wonder whether AMRO has any estimates for the potential losses from the escalation of trade conflicts in the Asia-Pacific.

A (Khor):
We did a study on the impact of trade protectionism on the regional economies, and the impacts of a 25 per cent tariff hike on imports from China to the United States are significant. Especially because Chinese exports are reliant on supply chains across Asia, and any impact on Chinese exports is likely to reverberate across the region.

Q (Kawai):
In the case of a large-scale crisis, the IMF would like to definitely step into Asia, given the region's importance to global economic and financial stability. In the case of a small-scale crisis, AMRO and the CMIM may be enough to handle it. Have you been talking about the rules of engagement between the IMF and AMRO in case of a major crisis where the two need to work together, and for a small crisis, which will require a regional response but not necessarily one from the IMF?

A (Khor):
The IMF's participation in any crisis is determined by the affected country's request. Most countries in Asia tend to be reluctant to approach the IMF because of its stigma and strict imposition of economic policies and measures. It can therefore take a long time, sometimes years, for the IMF to get involved in addressing a country's economic imbalance. The general understanding behind the setting up of AMRO and the CMIM is that the CMIM would be a quick response facility, as fast as within the first seven days of a request. To ensure that the facility is operational, test runs are conducted using scenarios, and continuous capacity and credibility building are being pursued to prepare for potential responses. In general, Asian economies are unlikely to default on repayments as they have built up substantial reserves.

Q (Kawai):
Even though the IMF is required to provide 70 per cent of the funds in case of financial needs, borrowing countries can still raise the rest of the needed funds through bilateral swap agreements, multilateral development banks, or the CMIM. Are there any official agreements on increasing the non-IMF linked funds in the CMIM?

A (Khor):
Yes, that is right. The CMIM can give up to 30 per cent of the funds allocated to a country in case of a crisis, and an IMF program is required in order to release the rest of the 70 per cent of the funds. Although there have been discussions on increasing the delinked portion of the funds, some countries are still not ready to do so.

Q (Kikuchi):
What is the next concrete step to build AMRO's capacity?

A (Khor):
We are conducting test runs, engaging in better policy dialogues, and looking into the expansion of the facility through local currency contributions. Smoother cooperation between AMRO and the CMIM to function as one unit rather than as separate entities can markedly improve the efficiency of the institutions and their readiness to respond to shocks.

Q (Kawai)
Rana talked about collaboration between the CMIM, AMRO and IMF. At the same time, the CMIM and AMRO can work on their own without the IMF in the case of a small-scale crisis. Nonetheless, even in the case of a small crisis, working with the IMF through additional surveillance and monitoring may be important, with AMRO formulating its own conditionality. What is your current assessment of AMRO's capacity to come up with its own conditionality? Do you agree that the CMIM can handle a small-scale crisis on its own? In addition, I have long been arguing for a troika involving ADB, CMIM, and AMRO in case of a large-scale crisis.

A (Rana)
I think Asia needs its own troika, and the ADB's focus can be on capital market development, local currency bond development, and capacity development. In the framework I suggest, there is a difference between big and smaller-scale crises. Crises may start small but then escalate, affecting investor behaviours in both crisis-affected and non-affected countries. For example, during the Asian Financial Crisis investors not only pulled their funds out of Thailand, but also Singapore. Differentiating between small and

big crises may be difficult. Moreover, the CMIM and AMRO are different in terms the way they are organised. The CMIM is managed by the central banks of member countries, who hold committed reserves. AMRO is only a surveillance unit whose responsibility is to confirm a member's eligibility to withdraw resources. I suggest the creation of a centralised reserves pool. Funds could be located at AMRO and managed by it. Such a step may ensure responsiveness.

Q (Sakuragawa)
What type of crisis stands a high probability of occurring in the Asia-Pacific region?

A (Rana):
There are two types of crises: capital account crisis and financial sector, regulatory framework crisis. Given the saving rates in Asia, the risk of capital account crises may be less acute than before, but the risks of financial crisis remain. In that sense, it is not the question of whether the crisis occurs, but when.

Part III

The Development of Financial Infrastructure

Prospects for local currency invoiced trade in ASEAN[53]

Kiyotaka Sato

REGIONAL POLICY COORDINATION FOR LOCAL CURRENCY SETTLEMENT

On 11 December 2017, the central banks of three ASEAN countries, Bank Indonesia, Bank Negara Malaysia, and Bank of Thailand, launched the Local Currency Settlement Framework (LCSF),[54] the purpose of which is to facilitate further use of local currencies in goods and services trade between the three countries.

Looking back at the Asian countries' exchange rate regimes over the past 30 years, most Asian countries adopted the *de facto* US dollar peg policy before the onset of the Asian currency crisis in 1997–98. An important lesson of that crisis was not to rely too much on a single currency, the US dollar, and most Asian countries started to adopt more flexible exchange rate policies from then on.[55] However, most Asian countries are said to have been heavily dependent on US dollars for their international trade transactions.

53 The author appreciates the financial support provided by the Japan Society for the Promotion of Science (JSPS) under grant numbers KAKENHI JP16H03638, JP16H03627, and JP17KT0032. The author expresses his gratitude to Junko Shimizu, who collaborated with the author in promoting the use of local currency in Asian trade. This paper is partly based on the joint research with her. The author would also like to thank Sahoko Kaji, Masaya Sakuragawa, Tomoo Kikuchi, and Masahiro Kawai for their useful comments on an earlier version of this paper.

54 This is a set of *bilateral* frameworks involving the three countries — the rupiah-ringgit framework, rupiah-baht framework, and baht-ringgit framework — which became effective from 2 January 2018. See Bank Negara Malaysia, "Local Currency Settlement: Framework Bank Indonesia, Bank Negara Malaysia and Bank of Thailand," Press Releases, December 11, 2017. http://www.bnm.gov.my/index.php?ch=en_press&pg=en_press&ac=4567

55 For a good overview of the Asian currency crisis, see Takatoshi Ito, "Asian Currency Crisis and the International Monetary Fund, 10 Years Later: Overview," *Asian Economic Policy Review*, 2 (2007):16–49

Why has the US dollar been predominantly used in Asian trade? One reason is that capital controls and regulations are still imposed in most Asian countries, which impede the use of local currencies in the region. Another reason is the "vehicle" role of the US dollar in foreign exchange market transactions. As US dollar transactions are least costly, these countries prefer to avoid a direct exchange between two Asian currencies, using instead indirect exchanges via the US dollar. However, if Asian currencies tend to fluctuate more widely against the US dollar and if bilateral exchange rates between Asian currencies become more stable, it might be costly for Asian countries to continue to use US dollars rather than local currencies in intra-Asian trade. In such a case, exporters and importers would have less incentive to invoice their trade in US dollars, because both exporters and importers shoulder relatively large exchange rate risks against the US dollar.

Against such a backdrop, the LCSF was launched as an effective coordination of policy to facilitate the use of local currencies in three ASEAN countries. But, the question is whether the LCSF can in practice promote local currency invoiced transactions between Indonesia, Malaysia, and Thailand. To tackle this research question, we first observe which currency is used in practice in ASEAN trade by collecting as much information as possible about the choice of invoicing currency. Second, we discuss why and how the LCSF was introduced and whether local currency transactions can be promoted, given the recent development of regional production networks and value chains. Finally, we discuss what conditions need to be met for further use of local currencies in ASEAN.

EVIDENCE OF THE USE OF LOCAL CURRENCIES IN ASEAN

To what extent are Asian currencies used in intra-Asian trade? People assume that the US dollar accounts for the dominant share as an invoicing currency in intra-Asian trade, but there have been only a few studies that reveal the actual pattern of invoicing-currency choice in Asian trade, mainly due to the limited availability of invoicing-currency data.[56] However, invoicing-currency data are publicly available from the Bank of Thailand, Bank Indonesia, and Bank of Korea, although the industry or commodity breakdown data are not available.

Table 1 shows the share of invoicing currency in Thailand's exports to and imports from four ASEAN countries as well as Japan in 2005 and 2017. First, the US dollar is the most used currency in Thailand's exports to four ASEAN countries. In 2005, 84 per cent of Thailand's exports were invoiced in US dollars. In 2014, the share of US dollar usage declined to some extent while the share of Thai baht usage increased. For instance, in Thai exports to the Philippines, the share of US dollar usage declined from 83.8 per cent to 69.6 per cent, while the share of Thai baht usage increased from 8.4 per cent to 22.2 per cent. The degree of decline in the share of US dollar usage is much smaller in Thailand's exports to Singapore and Malaysia, where more than 80 per cent were invoiced in US dollars as of 2017.

TABLE 1
Choice of invoicing currency in Thailand's exports and imports (%)

Exports to:	Indonesia		Malaysia		Singapore		Philippines		Japan	
	2005	2017	2005	2017	2005	2017	2005	2017	2005	2017
US Dollar	86.5	77.3	87.6	82.2	91.1	87.1	83.8	69.6	59.7	58.5
Thai Baht	9.7	16.3	8.2	13.4	3.4	6.2	8.4	22.2	7.3	16.5
Importer's Currency	n.a.	n.a.	2.3	2.2	3.8	5.3	n.a.	n.a.	n.a.	n.a.
Japanese Yen	1.7	4.3	1.2	1.1	1.3	0.7	3.5	6.2	32.3	24.8
Other Currencies	2.1	2.1	0.7	1.1	0.4	0.7	4.3	2.0	0.7	0.2

Imports from:	Indonesia		Malaysia		Singapore		Philippines		Japan	
	2005	2017	2005	2017	2005	2017	2005	2017	2005	2017
US Dollar	89.5	87.8	87.8	87.3	86.3	89.0	83.2	79.9	47.0	46.8
Thai Baht	6.0	8.8	3.7	8.0	5.5	4.9	12.2	14.7	7.6	15.4
Exporter's Currency	n.a.	n.a.	7.0	2.3	6.7	5.1	n.a.	n.a.	n.a.	n.a.
Japanese Yen	2.0	1.5	0.7	0.8	1.0	0.4	4.0	4.6	44.1	37.0
Other Currencies	2.5	1.9	0.8	1.6	0.5	0.6	0.6	0.8	1.3	0.8

Source: Bank of Thailand website, https://www.bot.or.th/English/Statistics/EconomicAndFinancial/Pages/StatInternationalTrade.aspx

56 A few exceptions that present the data on the invoicing-currency choice of Japanese overseas subsidiaries are Takatoshi Ito, Satoshi Koibuchi, Kiyotaka Sato and Junko Shimizu, "Choice of Invoice Currency in Global Production and Sales Networks: The Case of Japanese Overseas Subsidiaries," RIETI Discussion Paper Series 15-E-080, Research Institute of Economy, Trade and Industry, 2015; and Takatoshi Ito, Satoshi Koibuchi, Kiyotaka Sato and Junko Shimizu, *Managing Currency Risk: How Japanese Firms Choose Invoicing Currency* (UK: Edward Elgar, 2018). For an analysis of trade and settlements in Asian local currencies, see also Yoichi Kadogawa, Vanne Khut, Li Lian Ong, Chaipat Poonpatpibul, et al, "Asia and the CMIM in the Evolving International Monetary System," ASEAN+3 Macroeconomic Research Office Working Paper WP/18-01, March 2018.

Second, the share of US dollar usage was higher in Thailand's imports than in its exports. In imports from Indonesia, Malaysia, and Singapore, 87–89 per cent of Thailand's imports were invoiced in US dollars in 2017, though the share of US dollar usage was somewhat lower (79.9 per cent) in imports from the Philippines.

Third, while the share of Thai baht usage increased from 2005 to 2017 in Thailand's exports to four ASEAN countries, the use of other ASEAN currencies has not increased in Thailand's bilateral trade with these countries. Table 1 indicates that not only the exporters' or importers' currencies (i.e., Malaysian ringgit or Singapore dollars) but also "other currencies" do not show a large increase from 2005 to 2007, and their share is small in most exports and imports. Table 2 supports these findings. In Indonesia's total exports and imports, the share of rupiah usage increased only slightly, from 0.5 per cent in 2005 to 1.4 per cent in Indonesia's total exports and from 0.6 per cent to 3.1 per cent in Indonesia's total imports during the same period. The share of "other currencies", which are likely to include other Asian currencies, declined from 2005 to 2017 in both total exports and imports.[57] Table 3 shows the share of invoicing currency in Korea's trade

TABLE 2
Choice of invoicing currency in Indonesia's trade (%)

All Comodities	Exports		Imports	
	2005	2017	2005	2017
US Dollar	93.0	94.4	86.2	84.5
Euro	1.4	1.1	3.3	4.5
Japanese Yen	1.6	0.8	4.9	3.8
Chinese RMB	0.0	0.3	0.0	0.6
Indonesia Rupiah	0.5	1.4	0.6	3.1
Other Currencies	3.5	2.0	5.1	3.5

Non-Oil&Gas	Exports		Imports	
	2005	2017	2005	2017
US Dollar	91.3	94.3	82.5	82.0
Euro	1.8	1.2	4.2	5.1
Japanese Yen	2.1	0.9	6.3	4.4
Chinese RMB	0.0	0.4	0.0	0.8
Indonesia Rupiah	0.6	1.6	0.7	3.7
Other Currencies	4.2	1.6	6.2	4.0

Source: Bank Indonesia website, https://www.bi.go.id/en/statistik/seki/terkini/eksternal/Contents/Default.aspx.

57 Table 2 presents the invoicing currency share of non-oil and gas exports and imports as well, which also support our findings.

with the ASEAN countries as a whole. Although it is a bilateral trade not between ASEAN countries but between Korea and ASEAN countries, Table 3 suggests that ASEAN currencies account for at most 1 per cent or so in Korea's total trade with ASEAN countries.

TABLE 3
Choice of invoicing currency in Korea's trade (%)

	2005	2016		2005	2016
Exports to Japan			**Imports from Japan**		
US Dollar	41.2	42.2	US Dollar	34.5	41.4
Japanese Yen	57.3	50.9	Japanese Yen	63.1	52.3
Euro	0.1	0.5	Euro	0.3	0.8
Korean Won	1.4	6.3	Korean Won	2.0	5.4
Other Currencies	0.0	0.0	Other Currencies	0.0	0.1
Exports to China			**Imports from China**		
US Dollar	98.1	91.3	US Dollar	95.8	91.5
Japanese Yen	1.1	0.8	Japanese Yen	2.9	0.9
Euro	0.3	0.2	Euro	0.4	1.0
Korean Won	0.5	1.8	Korean Won	0.7	1.8
Chinese RMB	0.0	5.9	Chinese RMB	0.0	4.6
Other Currencies	0.0	0.0	Other Currencies	0.2	0.2
Exports to ASEAN			**Imports from ASEAN**		
US Dollar	96.8	96.5	US Dollar	95.6	94.2
Japanese Yen	0.8	0.6	Japanese Yen	2.0	1.1
Euro	0.8	0.3	Euro	0.8	1.0
Korean Won	0.5	1.1	Korean Won	1.2	2.8
Singapore Dollar	0.9	0.3	Singapore Dollar	0.3	0.6
Other Currencies	0.2	1.1	Other Currencies	0.1	0.3

Source: Bank of Korea website, http://ecos.bok.or.kr/EIndex_en.jsp

CAN THE LOCAL CURRENCY SETTLEMENT FRAMEWORK PROMOTE THE USE OF LOCAL CURRENCIES?

The LCSF is a set of *bilateral* arrangements involving three countries to promote the use of their currencies for settlement of their trade in goods and services. For instance, Bank Negara Malaysia and Bank of Thailand appointed seven banks in Malaysia and in Thailand, respectively, and allowed these banks to engage in a wide range of financial services (i.e., hedging, financing, and deposits) in the currency of the other country, which is expected to provide greater efficiency for exporters and importers in accessing ringgit in Thailand and baht in Malaysia.[58]

However, before introducing the LCSF, Bank Negara Malaysia initiated its Foreign Exchange Administration (FEA) rules on 2 December 2016, when faced with a sharp fall in the ringgit's value. To prevent further ringgit depreciation, Bank Negara Malaysia announced that (i) at least 75 per cent of export proceeds in foreign currency must be converted to ringgit; and (ii) domestic transactions in Malaysia must be settled in ringgit.[59] The former measure would discourage foreign multinationals with a high propensity to export from doing business in Malaysia. Also, Bank Negara Malaysia announced the Appointed Overseas Office (AOO) Framework to provide further flexibilities on ringgit transactions.[60] Specifically, non-resident financial institutions would be allowed to settle their trade and investments in ringgit if they are appointed by a licensed onshore bank. This gives non-residents unilateral access to ringgit transactions in Malaysia. The LCSF is just an extension of the AOO Framework from unilateral to bilateral agreements so that both Malaysia and Thailand (or Indonesia) can access their counterpart's currency for a wider range of financial services.

It must be noted that even after introducing the LCSF, only appointed financial institutions are granted foreign exchange flexibilities, and capital controls have not been abolished in each of the three countries. Although the use of local currencies is promoted by policy coordination between the three countries, their capital controls and regulations have not been fully liberalised.

Can we conclude that by introducing the LCSF exporters and importers have an incentive to invoice their traded goods in local currencies? As noted in the previous section, the US dollar is still the main currency used in the ASEAN countries' trade. While intra-ASEAN trade has expanded substan-

58 See Bank Negara Malaysia, "Local Currency Settlement: Framework Bank Indonesia, Bank Negara Malaysia and Bank of Thailand," Press Releases, December 11, 2017, http://www.bnm.gov.my/index.php?ch=en_press&pg=en_press&ac=4567

59 See the website of Bank Negara Malaysia on the FEA, http://www.bnm.gov.my/index.php?lang=en&ch=fea&pg=en_fea_overview&ac=100&lang=en).

60 See Bank Negara Malaysia, "Statement by Financial Market Committee: Appointed Overseas Office Framework," Press Releases, December 6, 2016, http://www.bnm.gov.my/index.php?ch=en_press&pg=en_press&ac=4318

tially, the driving force behind this expansion are the regional production networks or value chains of multinational firms in the Asian region as a whole, hence the US dollar is typically used. As shown in Table 1, the share of yen-invoiced transactions is quite large in the bilateral trade between Thailand and Japan. Nonetheless, intra-ASEAN trade is mainly invoiced in US dollars. This holds even for intra-firm trade.[61] The internationalisation of the Chinese renminbi has gained considerable attention in recent times, but renminbi-invoiced transactions are exceptionally low and far lower than yen-invoiced trade in ASEAN (see Tables 1–3).[62] It is hard to state that the yen and renminbi play a key regional role in facilitating intra-ASEAN trade.

Given the predominance of US dollar-invoiced transactions in intra-Asian trade as a whole, growing regional production and value chains are likely to impede the use of local currencies for trade invoicing. Alongside production chains, a major determinant of invoicing currency is where the final destination market is. It is often pointed out that the final destination for Asian exporters is the United States even though parts and components are actively traded in the Asian region.[63] To increase the use of local currencies, the ASEAN countries need to be more integrated and to increase their imports of final consumption goods.

PROSPECTS FOR THE USE OF LOCAL CURRENCIES IN ASEAN TRADE

For further use of local currencies in ASEAN, the following needs to be considered. First, other ASEAN countries need to be included in the LCSF to expand the scope of local currency transactions. For instance, Singapore is a good candidate for the LCSF, but Singapore's economic structure differs

61 See Takatoshi Ito, et al, "Choice of Invoice Currency in Global Production and Sales Networks" and Yoichi Kadogawa, et al, "Asia and the CMIM in the Evolving International Monetary System."

62 See also Kiyotaka Sato and Junko Shimizu, "International Use of the Renminbi for Invoice Currency and Exchange Risk Management: Evidence from the Japanese Firm-Level Data," *North American Journal of Economics and Finance*, 2018, which shows a limited use of the renminbi in the trade of Asia-based Japanese subsidiaries.

63 See Takatoshi Ito, Satoshi Koibuchi, Kiyotaka Sato and Junko Shimizu, "The Choice of an Invoicing Currency by Globally Operating Firms: A Firm-Level Analysis of Japanese Exporters," *International Journal of Finance and Economics*, 17, No. 4 (2012): 305–320; and Takatoshi Ito, et al, *Managing Currency Risk*.

substantially from the three existing LCSF countries. Singapore is a regional financial centre and multinational companies have located their regional headquarters in Singapore, which means that Singapore is well integrated into global production and value chains, where US dollars are typically used for trade invoicing.[64] This may contradict the primary purpose of the LCSF, and hence it is necessary to consider carefully how to enlarge the LCSF member countries to promote local currency transactions.

Second, exchange rate stability between ASEAN countries is a necessary condition for the use of local currencies. If ASEAN currencies are volatile against each other, the use of local currencies may be costly and the US dollar is likely to be preferred for intra-ASEAN trade. As discussed in the preceding section, Malaysia's introduction of the AOO Framework and its introduction of the FEA rules before the adoption of the LCSF indicate that additional capital controls were imposed to stabilise the ringgit exchange rate. It is necessary to investigate whether local currency transactions can be promoted while keeping strict capital controls.

Third, if trading with an operational hedge ("marry and netting") is allowed, exporters and importers will be able to make more efficient settlements for trade and investment. Currently, only appointed banks are allowed to provide a wide range of financial services in local currencies, which may not be sufficient to facilitate the use of local currencies. How to advance financial liberalisation in the LCSF countries needs to be considered for further use of local currency transactions.

64 Several large-scale Japanese companies built a global treasury centre for globally efficient settlements of trade and investment. Singapore is often chosen as a regional treasury centre. See Takatoshi Ito, et al, *Managing Currency Risk.*

The Asian Century and China–Japan Cooperation

Sahoko Kaji[65]

INTRODUCTION

The expanding use of mobile applications (apps) and electronic currencies has three related effects on the system of payments. One, it opens up the possibility of private non-financial entities, including foreign ones, participating in a country's payment system. Two, it facilitates the engagement of different entities in each of the two aspects of payments, that is, interface and settlement. Three, it necessitates the shift from "entity-based" to "function-based" financial regulation.

These effects in turn have three major implications, one negative and two positive. The negative implication is the threat to economic stability and national security. An important aspect of this threat is that if for whatever reason an app stops functioning or electronic currency becomes useless, the entire economy could grind to a halt.[66] And, entities with the power to bring about such a disruption can use it as a bargaining chip in negotiations. The two positive implications are the convenience and efficiency arising from technological innovation, and the streamlining and improvement of regulation.

In light of the theme of this conference, this paper will focus on China and Japan. We are going beyond the stage where the question is just whether the renminbi will become a key currency outperforming the yen. The question today is whether the payment system in a country like Japan can be dominated by a Chinese, South Korean or American technology company.

65 The author thanks Kiyotaka Sato, Masaya Sakuragawa and other participants at the second workshop organised by the Centre on Asia and Globalisation at the Lee Kuan Yew School of Public Policy, National University of Singapore, and the Keio Global Research Institute at Keio University, Japan, who provided useful comments. Ross Hikida, Adviser to the Centre for Finance, Technology and Economics (FinTEK) at Keio University also provided invaluable insights through e-mail.

66 Other concerns include cyberterrorism, electricity outages and data misuse.

PRIVATE SECTOR DOMINANCE OF THE PAYMENT SYSTEM

Whether any one entity engaged in payments has the power to affect the economy depends on the availability of alternatives. As noted earlier, the process of payment has two parts: interface and settlement. Cash is simultaneously an interface and a means of settlement. Cheques, credit and debit cards as well as mobile apps are interfaces tied to some means of settlement. Means of settlement are bank accounts and electronic currencies, including cryptocurrencies. There are three possible cases where private firms take part in the interface part and the means of settlement part:

Case 1:
private firms provide the interface and not the means of settlement (the means of settlement is provided by the central bank and/or other private companies):

- 1a: when alternative interfaces are available;
- 1b: when alternative interfaces are unavailable.

Case 2:
private firms provide the means of settlement without the interface (the interface is provided by the central bank and/or other private companies):

- 2a: when alternative means of settlement are available;
- 2b: when alternative means of settlement are unavailable.

Case 3:
private firms provide both the interface and the means of settlement:

- 3a: when alternative interfaces and means of settlement are available;
- 3b: when alternative interfaces and means of settlement are unavailable;
- 3c: when there is no alternative to either the interface or the means of settlement.

Cases 1b, 2b, 3b and 3c are cases where the behaviour of the private firm can seriously affect economic stability and national security. In cases 1b and 3b, if the firm stops the interface the payment stops (this also applies in 3c if there is no alternative interface). In case 2b, if the firm makes the means of settlement unusable, the payment stops (this also applies in 3c if there is no alternative means of settlement). Not surprisingly, as long as there are alternatives, payments can take place even if the firm stops the interface and/or the means of settlement (unless the means of settlement constitutes a substantial part of the store of value and purchasing power is destroyed).

At this stage, most economies have alternatives in both the interface and the means of payment. The larger the percentage of the economy that is dependent on a discontinued interface or means of settlement, the larger the disruption. Importantly, even if the providers of interface and means do not actually stop the app or destroy the means, they can use such possibilities as a threat in negotiations.[67]

What makes these threats more serious is that at this stage none of the non-financial companies that have entered the payments market are covered by existing financial regulations. There clearly is a need for change.

FROM ENTITY-BASED TO FUNCTION-BASED REGULATION

Japan's Financial Services Agency (JFSA) was the first financial authority in the world that recognised this need. In a speech in May 2017,[68] its then Commissioner, Nobuchika Mori, noted that "there may be increased need for regulations to shift from entity-based to function-based". In November 2017, the JFSA released its annual "Strategic Directions and Priorities,"[69] which included investigation into a possible shift away from "entity-based" to "function-based" regulation. One advantage for Japan is that the authorities are making this move before electronic payment takes a firm grip over the economy, unlike in China. But this could change, from the demand side and the supply side.

67 If the means of settlement are cryptocurrencies constructed as distributed ledgers, it would be far more difficult to terminate their use, compared to when the means of settlement are ordinary electronic currencies issued by one entity. But the cryptocurrency can still lose value so much so that it becomes unusable.

68 Nobuchika Mori, "Will FinTech create shared values?", Speech at the Annual Tokyo Conference of the Center on Japanese Economy and Business, Columbia Business School, Tokyo, May 25, 2017, http://www.fsa.go.jp/common/conference/danwa/20170525/01.pdf

69 Japan Financial Services Agency, "Strategic Directions and Priorities: 2017–2018," November 2017, http://www.fsa.go.jp/en/news/2018/2017StrategicDirectionsSummary-English.pdf

On the demand side, according to a 2017 study by the Bank of Japan[70], only 6 per cent of the Japanese respondents polled in a survey "will use mobile payments at the store counter". The key is whether and how quickly consumers change their minds. Consumers have choices, but some choices can be induced by the supply side.

On the supply side, at the end of 2017, 40,000 stores in Japan, including the convenience store Lawson, accepted the Chinese firm Alibaba's mobile payment platform, Alipay. A Japanese Alipay user must have a Chinese bank account, and the same constraint is true for Wechat Pay, another Chinese payment platform. If Japan makes a move to remove this constraint, use of these payment methods can spread throughout Japan. On 16 March 2018, the Nikkei reported that just such a move had been "delayed".[71] But there are other ways for change to originate from the supply side. Use of the electronic cards Pasmo and Suica has become a routine for riding buses and trains in Japan. Alibaba and Honda have teamed up in China for the use of Alibaba's navigation system and its Alipay system for drivers of Honda's "connected cars". Japanese motorists may well appreciate the same convenience in future.

Then there are the Japanese banks, not a small number of which are looking for new types of business. The real push for change may come after a crisis that results in banks with bad balance sheets and retail stores short of funds, both of which have no choice but to collaborate with foreign technology giants for survival. Then, consumers may be obliged to download and pay with their apps. It would seem wise to waste no time in preparing a function-based regulatory scheme that is efficient and effective.

PRIVATE VS. PUBLIC; DOMESTIC VS. FOREIGN

In order to move in the direction of function-based regulation, we need to recognise that the question of payment dominance has two phases. The first phase is whether private firms should dominate in providing the interface and/or means of settlement. The second phase is, if the answer to the first

70 Bank of Japan, "Mobile Kessai no Genjo to Kadai" [The current state and issues of Mobile Payment, in Japanese], Payment and Settlement Systems Report, 2017: Annex, https://www.boj.or.jp/research/brp/psr/data/psrb170620a.pdf

71 "Alibaba, Nihonban Sumaho Kessai Enki" [Alibaba delays the Japanese version of smartphone settlements, in Japanese], *Nihon Keizai Shimbun* March 16, 2018,

phase is "yes", which private entity from which country should dominate the provision of the service.

Several reasons can be put forward in support of public provision of the method of payment: seignorage gains to the public purse, stable supply of money, prevention of fraud, and keeping personal information out of the hands of private firms. If these are legitimate reasons, then legislation must be introduced to secure each of them. At the same time, some central bankers express scepticism about offering their own electronic payment infrastructure[72] for the reason that central banks should not obtain information on private sector transactions.

If we go the way of welcoming private entities to provide electronic means of transaction, we need to decide whether they must be domestic companies. This is the second phase of the question of payment dominance. The ideal regulation will depend on which point along the spectrum we choose, between the two extremes of public vs. private, domestic vs. foreign.[73]

"Function-based" regulation means all entities that provide the same function come under the same rule. If we are to insist that private sector providers cannot be foreign, we need to regulate away the possibility of foreign takeovers of domestic private sector firms. The regulation will be similar to those on key, infrastructure-related industries. Perhaps the permissible maximum percentage of foreign ownership should be tied to preventing market dominance.

Governments need to design a built-in mechanism that renders payment interfaces and means more robust. Nonetheless, if a private provider of the interface or means of payment runs into financial difficulty, govern-

72 "Sosai ga tsukihanashita Kasou Tsuka" [The Governor dismisses cryptocurrencies], *Nihon Keizai Shimbun* (in Japanese), February 15, 2018. Does this mean Japan should remain an economy reliant on publicly issued notes and coins? In the European Union, this gives a whole new dimension to the argument made by anti-EU factions in Italy, Greece, France and others advocating a departure from the single currency. At this moment, parallel currencies are illegal in the Eurozone, where the Euro should be the sole legal tender by EU law.

73 The optimal point may shift with time, in which case, the ideal form of regulation will also shift. But usually it is neither possible nor desirable for regulation to change frequently and rapidly. Such rapid changes in regulation are perceived as "regulatory risk".

ments may have to resort to taxpayer-funded capital injection, just like the old days, but this time not into banks but into retail stores, for instance.

Given the above considerations, governments must seriously decide what is the maximum market share of payments can private sector firms, domestic or foreign, can be allowed to hold. And, whether and how to raise funds from each of these entities to prepare a sort of guarantee against their running into financial difficulties.

IMPROVED AND STREAMLINED REGULATION

At the same time, regulations and regulatory practice must allow for new entries into payment systems. Regulation cannot become a smokescreen for collusion between regulatory authorities and special interests. Interestingly, function-based regulation could mean that if there is to be collusion, it will be among some unfamiliar faces, which could create a dynamic against facile collusion. Function-based regulation also requires communication and co-operation between ministries.

Needless to say, any new regulation should be accompanied by regulations on data protection and cyber security. Japan should take advantage of its latecomer status and pick, choose and consciously introduce a robust and efficient system of regulations that does not hinder innovation.

China, too, would need to prepare legislation to suit its expanding electronic payments system. The difficulty in China is that the economy became heavily reliant on electronic payments before sufficient thought was given to their full implications and the regulatory changes that might be necessary. Alibaba and Tencent, which together take up over 90 per cent of the mobile payments market, already engage in wealth management as well, among other things. A *Financial Times* report noted that it was "all but impossible, even for a visitor, to get through a day in China without recourse to an Alibaba or Tencent app…. Communication is virtually all done through Tencent's WeChat messaging service and shop signs demanding payment by app are common. For local Chinese, usage is even higher".[74] And, the

74 Louise Lucas, "Beijing's battle to control its homegrown tech groups", *Financial Times*, September 22, 2017, https://www.ft.com/content/36cd5f2c-94c5-11e7-bdfa-eda243196c2c

expansion of such firms into electronic payments systems suits the Chinese government's policy of shifting the centre of gravity away from investment, exports and production towards consumption while also contributing to its efforts to root out fake products.[75] Ant Financial (formerly known as Alipay) is even building a foundation of a "social credit" system whereby users are rated for good citizenship.[76]

Some kind of international policy coordination is called for in order for policy authorities to be jointly up-to-date on fast-changing developments in technology and electronic payments and their implications, including the possible risks. Such policy coordination would help governments exchange information on the desired direction of regulatory changes and increase their negotiating power against monopolistic technology giants.

75 Jane Perlez, "Q. and A.: Duncan Clark on 'Alibaba: The House Jack Ma Built'", *New York Times*, March 29, 2016, https://www.nytimes.com/2016/03/29/world/asia/duncan-clark-alibaba-jack- ma.html

76 Yang, Yuan, "Does China's bet on big data for credit scoring work?", *Financial Times*, December 20, 2018

ASEAN Connectivity and China–Japan Infrastructure Export Competition

Challenges facing ASEAN Integration

Blake H. Berger

INTRODUCTION

ASEAN's regional integration initiative can be traced back to the initiation of the ASEAN Free Trade Agreement (AFTA) in 1992. China and Japan have been steadfast partners of ASEAN in its pursuit of its regional integration goal. Integration in Southeast Asia gained further steam when the organisation adopted the ASEAN Economic Community (AEC) in 2007 and the Master Plan for ASEAN Connectivity (MPAC) in 2010. China and Japan are poised through their respective economic plans and infrastructure exports to significantly assist the region in bolstering its integration initiative, whether through the construction of high-speed rail (HSR) links or port development. Both China and Japan have increased not only their diplomatic outreach and institution building with ASEAN and its member states but have also substantially strengthened their economic and infrastructure engagement with the region, under the Belt and Road Initiative (BRI) and Partnership for Quality Infrastructure (PQI), respectively. While the two states' infrastructure exports help support ASEAN's connectivity goals, their rivalry may hamper cohesive integration in ASEAN.

This paper is structured as follows. The first section provides a brief overview of the concepts of regional integration and connectivity in general, and the rationale and specific plans behind the AEC and MPAC. The second section explores China and Japan's calculations in initiating the BRI and PQI, respectively, and their engagement with ASEAN and its members. The third section highlights some of the challenges surrounding ASEAN integration and provides policy recommendations.

ASEAN, REGIONAL INTEGRATION, AND CONNECTIVITY

While regional integration and connectivity have become synonymous buzzwords utilised in describing the processes undergirding the AEC and

MPAC, the terms, in fact, connote differing processes. Regional integration can be conceived conceptually as two distinct processes. First, regional integration as both an informal and formal process through which geographically proximate states attempt policy coordination and the corollary implementation of common policies.[77] Second, integration conceived as both a re-regulatory and deregulatory process, where states adopt new common policies and dually remove certain barriers to trade and investment, respectively.[78] The process of connectivity, on the other hand, is considered the foundational building blocks of the convergence and cohesion of a regional integration initiative through the development of linkages in transportation, energy infrastructure, and information and communication technology (ICT), which facilitate trade and investment and the reduction of associated costs.[79] In the case of ASEAN, the MPAC initiative comprises the necessary building blocks of hard and soft infrastructure to implement the AEC.

Understanding the political and economic calculations behind China and Japan's use of infrastructure exports in support of ASEAN integration requires an overview of ASEAN's rationale for advocating and advancing regional integration. Following ASEAN's attempts in the 1970s and 1980s to implement various economic cooperation initiatives, there was general recognition that these early attempts were ineffective. In the 1990s, following the establishment of the North America Free Trade Area (NAFTA) and the Asia-Pacific Economic Cooperation (APEC) process, the signing of the 1991 European Union Maastricht Accord, and the opening up of China through its economic reform programme, ASEAN leaders became concerned that foreign direct investment (FDI) might be diverted from Southeast Asia to other regions and China. Such diversion would have in turn negatively affected regional economic growth.[80]

77 Douglas Webber and Bertrand Fort, *Regional Integration in East Asia and Europe: Convergence or Divergence?* (London and New York: Routledge, 2006).

78 Simon Hix, "Institutional Design of Regional Integration: Balancing Delegation and Representation," Asian Development Bank Working Paper Series on Regional Economic Integration, No. 64, ADB 2010.

79 Prabir De, "India's Emerging Connectivity with Southeast Asia: Progress and Prospects." ADBI Working Paper 507. Asian Development Bank Institute, 2014.

80 Hal Hill and Jayant Menon, "ASEAN Commercial Policy: A Rare Case of Outward-Looking Regional Integration." Asian Development Bank Working Paper Series on Regional Economic Integration, No. 144. Asian Development Bank, November 2014.

To adequately address this economic challenge, ASEAN throughout the 1990s, especially following the Asian Financial Crisis of 1997–1998, sought to bolster its institutions and coordination. As a result, the ASEAN leaders adopted the AEC in 2007, which is founded upon four key pillars; first, a single market and production base; second, a highly competitive economic region; third, equitable economic development in ASEAN; and fourth, a region that is fully integrated into the global economy.[81]

Despite ASEAN intentions to establish a single market and production base and a competitive region, its infrastructure deficit remains a significant impediment to the realisation of its goals. The gap in infrastructure availability and quality in the region is stark, ranging from Singapore's world-class sea, airports and logistics infrastructure to the lack of adequate infrastructure to facilitate the movement of goods domestically in Cambodia, Laos, Vietnam, Myanmar, Indonesia, and the Philippines.[82] The regional infrastructure deficit adversely affects economic competitiveness as inadequate infrastructure raises transportation and trade costs, acts as a barrier to cohesive and consolidated production networks, and impedes successful industrial and economic development.[83] In recognising these challenges and the need for infrastructure development, the ASEAN leaders in October 2007 adopted MPAC, which emphasised three dimensions of connectivity: first, physical; second, institutional; and third, people-to-people. Key MPAC projects include the ASEAN Highway Network (AHN), the Singapore-Kunming Rail Link (SKRL), the ASEAN Power Grid (APG), and the Trans-ASEAN Gas Pipelines (TAGP).

While the adoption of the MPAC signalled ASEAN's commitment to improving infrastructure, financing these projects remains a daunting and substantial obstacle. The Asian Development Bank (ADB) estimates that between 2016 and 2030. ASEAN needs US$217 billion annually to finance infrastructure. However, the current estimated annual funding gap

81 ASEAN Secretariat, "ASEAN Economic Community," Jakarta 2008.

82 Chia Siow Yue, "ASEAN Economic Integration and Physical Connectivity," *Asian Economic Papers* 15, Vol. 2 (2016).

83 Hong Yu, Hong, "Infrastructure Connectivity and Regional Economic Integration in East Asia: Progress and Challenges," Global-is-Asian Insight, Lee Kuan Yew School of Public Policy, 2017.

is US$139 billion.[84] In order to support the MPAC and to narrow the funding gap, ASEAN members and the ADB in 2011 signed and established the ASEAN Infrastructure Fund (AIF), which aims to provide US$300 million a year in loans to finance infrastructure projects.[85] However, the AIF is unable to meet the needs of the region. This fact was underscored by Rahmat Pramono, Indonesia's Representative to the ASEAN Connectivity Coordinating Committee (ACCC): "ASEAN needs US$600 billion for physical connectivity. We have the ASEAN infrastructure fund, but it is not sufficient to finance all the projects."[86] While ASEAN and the ADB have been unable to meet the financing needs of the region, China and Japan through their own initiatives have stepped up to support ASEAN's infrastructure financing and construction needs. As ASEAN members welcome both China and Japan's support, the Sino-Japanese rivalry may have negative economic and political implications for the region.

CHINA'S BRI, JAPAN'S PQI, AND THE RATIONALE BEHIND THE PLANS

Japan and China have been dialogue partners of ASEAN for 45 and 27 years, respectively, and have both played substantial roles in establishing and strengthening the region's production networks and supply chains. Although both countries are proactive in engaging the region economically and contribute to regional integration through infrastructure exports, the rivalry between them has the potential to constrain the development of a cohesive integrated region, further stress ASEAN unity, and strain diplomatic relations between ASEAN member states.

In October 2013, President Xi Jinping unveiled the 21st Century Maritime Silk Road Initiative during a trip to Indonesia. The Maritime Silk Road is one of the major routes of China's BRI, stretching from Southeast Asia to Africa, while the other section, the Silk Road Economic Belt, starts in China and ends in Europe. In order to finance, and provide technical support for,

84 Asian Development Bank, "Meeting Asia's Infrastructure Needs," (Manila: Asian Development Bank, 2017): xvi.

85 Asian Development Bank, "ASEAN Infrastructure Fund (AIF)," 2017, https://www.adb.org/site/funds/funds/asean-infrastructure-fund

86 "ASEAN Connectivity: A Role for Europe?" *Friends of Europe*, Spring 2014.

BRI projects, China established the Asian Infrastructure Investment Bank (AIIB) in 2014. The rationales behind the BRI and the AIIB are both rooted in economic and political justifications.

Economically, there are three primary overlapping purposes. First, by modernising partner country transportation and infrastructure facilities, China can not only increase bilateral trade but also secure reliable trading routes. Second, as China shifts from an economy founded upon manufacturing-oriented growth to a more balanced model that emphasises growing domestic consumption, it needs to export its excess production capacity to neighbouring states, and additionally, through infrastructure exports, support the global expansion of Chinese companies. Third, through the creation of the BRI, China seeks to integrate its inland western provinces, such as Guangxi, Yunnan, and Xinjiang, into global supply chains and production networks, and, thereby improve their economic development.

Politically, the BRI and AIIB can be seen as serving several purposes. First, through infrastructure exports and financing, China seeks to strengthen its geopolitical influence over recipient states. Second, the establishment of the AIIB can be seen as the result of China's frustration that it was not getting international respect commensurate with its economic growth, notably that reforms within international financial institutions, such as the International Monetary Fund (IMF) and World Bank, have been slow.[87]

Supplementing the BRI and AIIB, China has two additional financing mechanisms to support the AEC, and MPAC. The first is the China-ASEAN Investment Cooperation Fund (CAF), jointly established by China and ASEAN in 2009. CAF is a quasi-sovereign equity fund backed by the Export-Import Bank of China (EXIM Bank of China) and focuses on the infrastructure, energy, and natural resource sectors. On 23 January 2018, CAF announced that it was seeking to raise US$3 billion, with US$1 billion specifically coming from Chinese state-owned enterprises (SOEs). CAF has

87 Hong Yu, "Motivation Behind China's 'One Belt, One Road' Initiatives and Establishment of the Asian Infrastructure Investment Bank." *Journal of Contemporary China*, 26 (2017):105, 353–368.

already invested in infrastructure projects in Thailand and the Philippines.[88] The second mechanism is the US$40 billion Silk Road Fund, which China established in December 2014 as an additional means to finance infrastructure, resources, and financial cooperation projects. Under the BRI umbrella and infrastructure exports, China has made significant inroads in ASEAN. China has not only strengthened its trade and production networks and advanced compatibility between the BRI and MPAC, but has also strengthened and extended its diplomatic influence throughout the region.

Despite Japan's longer dialogue relationship with ASEAN and history of infrastructure exports to the region, its contemporary ASEAN economic and infrastructure policy has been to a large extent developed in reaction to China's aggressive push for influence in the region. In direct response to China's BRI announcement in 2013, Prime Minister Shinzo Abe unveiled the PQI in 2015. During his announcement, Abe pledged US$110 billion to finance quality infrastructure over the next five years, which was US$10 billion more than the AIIB's initial capital.[89] The PQI is based upon "four concrete measures to pursue quality infrastructure: the full mobilization of Japan's economic cooperation tools; collaboration between Japan and the ADB; the doubling of funds for projects with relatively high risk profiles; and the promotion of quality infrastructure investment as an international standard. A crucial feature in the initiative was the combination of bilateral support through the Japan International Cooperation Agency (JICA) and the Japan Bank for International Cooperation (JBIC) with multilateral commitments represented by the ADB as a strategy to complement each other for offering high-quality infrastructure."[90] Both China and Japan utilise government institutions and intervention, albeit differently, to support their respective initiatives, i.e., the BRI and PQI.

Similar to China, the rationale behind Japan's PQI is both economic and geopolitical in nature. Economically, due to its rapidly aging and declining population, with the corollary reduction of sources of domestic investment

88 Julie Zhu, "ASEAN-focused China fund raising up to USD3 billion for Silk Road projects: sources," *Reuters*, January 23, 2018, https://www.reuters.com/article/us-china-private-equity/asean-focused-china-fund-raising-up-to-3-billion-for-silk-road-projects-sources-idUSKBN1FC0SE

89 Hidetaka Yoshimatsu, "Japan's Export of Infrastructure Systems: Pursuing Twin Goals through Developmental Means." *The Pacific Review*, 30 (2017): 4, 494–512.

90 Ibid: 496.

and consumption, Japan can no longer rely on the domestic market for future economic growth. Additionally, the appreciation of the yen over the years has prompted Japanese industries to speed up the relocation of their manufacturing and research and development (R&D) facilities overseas, resulting in the need to increase the procurement of parts and components from overseas markets. This led to a decline in Japan's export competitiveness. In order to secure future economic growth and strengthen the presence and profitability of Japanese businesses, Japan must further integrate itself into the global market. Politically, Japan has utilised the PQI to attain political and security objectives in ASEAN, particularly in aligning select ASEAN states' maritime policy with Tokyo's, strengthen its position in the region, and counter China's growing influence.[91] Despite the increased attention surrounding the BRI, Japan's infrastructure investment in ASEAN is substantially larger than China's. Since 2000, Japan has invested roughly US$230 billion in infrastructure, in comparison to China's US$155 billion.[92]

The Sino-Japanese rivalry is very much alive in ASEAN as the two states continue to compete over infrastructure development and geopolitical influence. This dynamic can be seen in the competition over railway infrastructure in Thailand, with China developing the Bangkok to Nakhon Ratchasima HSR line and Japan seeking to construct the Bangkok to Chang Mai line[93]; the intense competition to bid for the construction of the Singapore–Kuala Lumpur HSR[94]; the bidding competition over the Jakarta–Bandung HSR line, which China won and prompted Japan to bolster the PQI[95];

91 Ibid.

92 Siegrid Alegado, "Japan Still Beating China in Southeast Asia Infrastructure Race," *Bloomberg*, February 9, 2018, https://www.bloomberg.com/news/articles/2018-02-08/japan-still-beating-china-in-southeast-asia-infrastructure-race

93 Pavin Chachavalpongpun, "A Sino-Japanese Tug-of-War Taking Place in Thailand," *The Japan Times*, January 15, 2018, https://www.japantimes.co.jp/opinion/2018/01/15/commentary/japan-commentary/sino-japanese-tug-war-taking-place-thailand/#.WpZrC2aB0_V

94 "Japan Going All Out to Win KL-Singapore High-Speed Rail Contract." *Straits Times*, January 8, 2018, http://www.straitstimes.com/asia/se-asia/japan-going-all-out-to-win-kl-spore-high-speed-rail-contract

95 Robin Harding, Avantika Chilkoti, and Tom Mitchell, "Japan cries foul after Indonesia awards rail contract to China." *Financial Times*, October 1, 2015, https://www.ft.com/content/eca4af84-67fa-11e5-97d0-1456a776a4f5

and competing economic corridors and port development in Myanmar.[96] While Southeast Asia is poised to benefit from the Sino-Japanese competition over infrastructure via increased financing opportunities and sources, ample official development assistance (ODA), and funding for higher risk projects, the competition and rivalry may undermine ASEAN's ultimate goal of cohesively integrating the region.

CHALLENGES AND RECOMMENDATIONS

While ASEAN integration progresses, the region will undoubtedly benefit from the infrastructure exports from both China and Japan. However, the overlapping challenges facing the region are due to both institutional issues and the rivalry between the two powers. As the ASEAN Secretariat remains weak and underdeveloped, coordination across countries and sectors remains a significant obstacle; this problem is only accentuated by China and Japan's participation in developing competing infrastructure projects. This competition is especially salient when examining the SKRL, which stretches from Kunming through Vietnam, Laos, Cambodia, Thailand, Malaysia, and onto Singapore.

As China and Japan bilaterally negotiate with their ASEAN partners over the development of specific segments of the SKRL, significant concerns emerge over the compatibility and connectivity between the different lines, which would undoubtedly have an adverse effect on the efficiency of the project.[97] With China and Japan rapidly expanding their infrastructure exports and competing with one another to see who can offer the most favourable terms, this may result not only in economically non-viable projects but also poorly designed and inefficient infrastructure. "The availability of huge amounts of Chinese and Japanese capital can increase the risk of local malpractice and the possibility of high-ranking officials of the recipient countries engaging in bribery and corruption."[98]

96 Wade Shepard, "China and Japan's 'New Great Game' Intensifies in Myanmar." *Forbes*, January 29, 2018. https://www.forbes.com/sites/wadeshepard/2018/01/29/china-and-japans-new-great-game-intensifies-in-myanmar/#3e1e2b405ab2

97 Hong Yu, "Infrastructure Connectivity and Regional Economic Integration in East Asia: Progress and Challenges."

98 Ibid: 22

Apart from adversely affecting infrastructure development in the region, the competition between China and Japan may further strain regional and bilateral ties. This was evident in the Jakarta-Bandung HSR bidding process, where Japan was caught off guard by Indonesia granting China the infrastructure contract. The resulting disappointment led Japan to adopt additional policies to counter the BRI.

To bolster implementation of MPAC and cohesive regional integration, ASEAN members should strengthen both the ASEAN Secretariat and the ASEAN Connectivity Coordinating Committee (ACCC), the committee in charge of ensuring implementation. In addition to strengthening the ACCC, ASEAN as an institution should play a larger role in the bidding process in order to ensure that the projects are economically viable, properly designed, and complementary to each other. This would not only ensure that the BRI and PQI are successful, but also that the MPAC initiative is not overtaken by the two rival initiatives.

The Importance and Implications of the e-Commerce Clause in the CPTPP

Fukunari Kimura

THE DIGITAL ECONOMY WAVE

Since the 1990s, ASEAN and developing East Asia have led the world in aggressively utilising the mechanics of the so-called "second unbundling" or international production networks, particularly in machinery industries, in their development strategies. And now, "the third unbundling" or the digital economy is arriving in the region.

The concept of "unbundling" proposed by Baldwin[99] is useful in understanding how a technological breakthrough overcomes distance and transforms the nature of economic transactions as well as the international division of labour (Figure 1).[100] The reduction in trade costs triggered the first unbundling, where production and consumption were separated across national borders. The lowering of communication costs started the second unbundling in which production processes or tasks were placed in different places and the combination of transactions in short and long distances generated both fragmentation and agglomeration. Now, the third unbundling has been initiated by reduced face-to-face costs where business-to-consumer (B-to-C) or consumer-to-consumer (C-to-C) matching becomes much easier than before and each task will be fragmented to individual. (Figure 2).

The digital economy emerges in this context. We observe that various new business models are mushrooming, which include social media such as Facebook, B-to-C and C-to-C matching platforms such as Uber and AIRBNB, e-commerce platforms such as Amazon and Alibaba.com, and e-payments as well as fintech. Large platforms tend to be dominated by

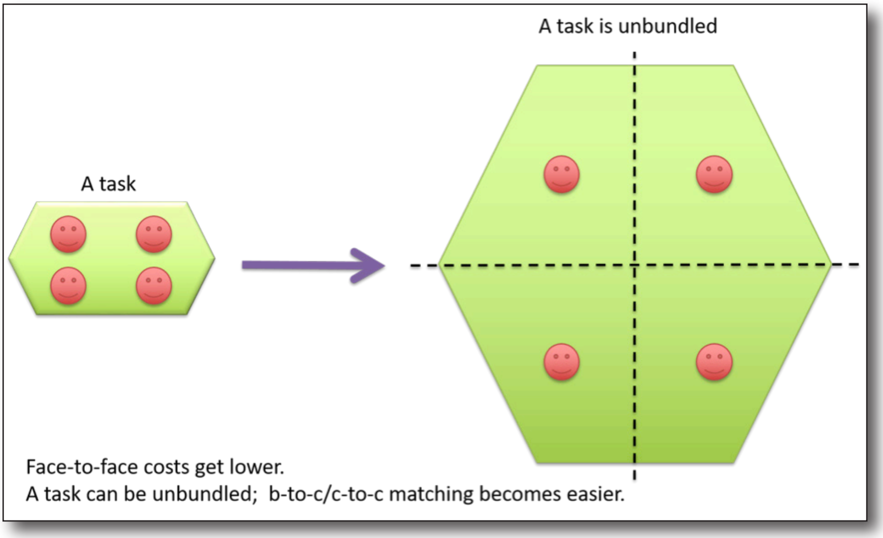
99 Richard Baldwin, *The Great Convergence: Information Technology and the New Globalization* (Cambridge, MA: The Belknap Press of Harvard University Press, 2016).

100 Also see Fukunari Kimura, "'Unbundlings' and Development Strategies in ASEAN: Old Issues and New Challenges." *Journal of Southeast Asian Economies* 35(1), 2018: 13–21.((Please fix the format for the cited paper.))

FIGURE 1
Overcoming distance and the evolution of unbundlings

	Pre-globalized world (0)	The 1st unbundling (1)	The 2nd unbundling (2)	The 3rd unbundling (3)
Trade costs Communication costs Face-to-face costs	High High High	Lower High High	Lower Lower High	Lower Lower Lower
What starts moving? What overcomes distance?	None	Goods	Ideas	People
International division of labor	Autarky	Industry-wise (Production and consumption are fragmented)	Task-wise (An industry is fragmented)	Person-wise (A task is fragmented, b-to-c c-to-c matching easier)
Years of dominance	- 1820	1820-1990	1990-2015	2015-

FIGURE 2
The 3rd Unbundling



world-class players with network externalities though relatively small local players can take care of small platforms and a huge number of applications. While the first and second unbundling place emphasis on efficiency in production, the third unbundling may become more consumer-oriented, and people-to-people connectivity will be emphasised. In addition, the introduction of new piecemeal technologies from the digital economy can revitalise old industries. "Smart" agriculture using smartphones, 3D printers for t-shirts, the Internet-of-Things for supply chain management are some examples. As for the unbundling of production, going beyond the task-wise division of labour, we are increasingly seeing a division of labour whereby a single task is performed by several different individuals within and beyond national borders.[101]

One aspect of the digital economy is the explosively growth in the flow of data. Bughin and Lund[102] report that the cross-border bandwidth has grown 45 times larger over the past decade. The growth rate is obviously much higher than the growth rates of the trade in goods, trade in services, and the movement of people. Admittedly, data flows themselves are not equivalent to economic transactions but they certainly support various economic opportunities. A free flow of data, both domestic and international, will be an important prerequisite for further vitalising the digital economy.

Information technology, represented by artificial intelligence (AI) or Industry 4.0, will reduce the number of tasks involved in production and distribution and thus will generate concentration of forces. On the other hand, communication or coordination technology, such as smartphones and the Internet, will reduce the cost of overcoming distance and strengthen dispersion forces. Newly developed economies may not be able to compete with the world's giants on information technology in the short run but can certainly utilise the dispersion forces made by the advances in communication technology. Large platforms go with strong network effects or economies of scale. Newly developed economies, particularly large countries,

101 Kimura and Cheng argue that the arrival of the digital economy is a great opportunity for ASEAN to boost its economic development and discuss what is needed to take advantage of it. See Fukumari Kimura and Lurong Chen, "To Enhance E-Commerce Enabling Connectivity in Asia." ERIA Policy Brief, October 1, 2017, http://www.eria.org/publications/policy_briefs/index.html; and Fukumari Kimura and Lurong Chen, "E-Commerce as Asia's New Growth Engine." ERIA Policy Brief , October 2, 2017, http://www.eria.org/publications/policy_briefs/index.html

102 Jacques Bughin and Susan Lund, "The Ascendancy of International Data Flows," Vox EU, January 9, 2017, https://voxeu.org/article/ascendancy-international-data-flows

may consider the possibility of infant industry protection. However, overly strong protection for premature domestic players could cost much for both business and consumers. Various types of small platforms can still stand, and applications may flourish, even with foreign platforms. The openness in accepting new technologies and creating new business models will be a crucial element in utilising the mechanics of the third unbundling in newly developed economies.

FREE FLOW OF DATA IN CPTPP AND NECESSARY BACKUPS

On December 30, 2018, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) entered into force, with six countries. After the United States walked away from the planned Trans-Pacific Partnership in January 2017, 11 of the intended participants started negotiating the CPTPP and ended the negotiation with 22 minor suspended items, leaving most of the text of the original Trans-Pacific Partnership Agreement (hereinafter TPP12) intact. These countries thought much of the value of the original text of TPP12 because this agreement was expected to set a new standard for the ongoing economic integration effort of the region, particularly in terms of the level of liberalisation and international rule making. The e-commerce chapter of the agreement (Chapter 14) would have been one of the path-breaking contributions to rule making.

The articles of Chapter 14 are listed in Table 1. There are three key points in this chapter. First, it calls for the free flow of data, which includes no imposition of import duties (Article 14.3) and non-discriminatory treatment of digital products (14.4). Second, it calls for the prohibition of data localisation requirements so that there is open access to and use of the Internet for electronic commerce (14.10), cross-border transfer of information by electronic means (14.11), and cross-border location of computing facilities (14.13). Third, it prohibits forced transfer requirements of software source code.[103]

103 Although some of the economic partnership agreements (EPAs) that have recently been concluded by Japan have e-commerce chapters, the second and third commitments were not included in the Japan-Switzerland EPA or the Japan-Australia EPA, and the second was not included in the Japan-Mongolia EPA.

TABLE 1
Articles of Chapter, 14, TPP12

1. Definitions	10. Principles on access to and use of the Internet for electronic commerce
2. Scope and general provisions	11. Cross-border transfer of information by electronic means
3. Customs duties	12. Internet interconnection charge sharing
4. Non-discriminatory treatment of digital products	13. Location of computing facilities
5. Domestic electronic transactions framework	14. Unsolicited commercial electronic messages
6. Electronic authentication and electronic signatures	15. Cooperation
7. Online consumer protection	16. Cooperation on cybersecurity matters
8. Personal information protection	17. Source code
9. Paperless trading	18. Dispute settlement

Source: New Zealand Ministry of Foreign Affairs and Trade, https://www.mfat.govt.nz/assets/Trans-Pacific-Partnership/Text/14.-Electronic-Commerce-Chapter.pdf

Admittedly, these commitments, particularly the first two, cannot be applied in all situations without reservation. Although the free flow of data and prohibitions on data localisation should be generally beneficial for various economic activities, there are a number of concerns held by various stakeholders. A series of backup policies are needed to reconcile with the other national objectives of some member countries or to supplement the free flow of data. Some of them are explicitly written in the CPTPP: for example, online consumer protection (Article 14.7), personal information protection (14.8), and cooperation on cyber-security matters (14.16). Article 14.11 also clearly allows member countries to impose policy measures that partially restrict cross-border information flows for public purposes, provided that the measures are not disguised trade protection or are not in an excessively restrictive form. Financial services are largely excluded from the application of these commitments. In addition to consumer protection and privacy issues, we may need to take care of competition policy, particularly with regard to giant platform firms, taxation, cyber-security in general, and, arguably, infant industry protection.

The e-commerce chapter of the CPTPP posits the principle of the free flow of data but at the same time allows much room for deviating from it. The quality of implementation must be evaluated carefully. However, even with a number of reservations, the CPTPP provides a basic stance and philosophy in our efforts at international rule making.[104]

COSTLY ALTERNATIVES

The European Union has a completely different approach and seems to go almost in the opposite direction. A symbolic policy is its EU General Data Protection Regulation (GDPR),[105] which came into force on 25 May 2018. Primarily from the viewpoint of privacy protection, the EU GDPR will demand strict data localisation on individual data. Although its implementation is still riddled with many uncertainties, a foreign company operating in the European Union, for example, will be prohibited from sending its employee data in the European Union to the headquarters in its home country. Even where a company does not have an affiliate in the European Union, it cannot collect information on customers in the European Union without permission. Once this restriction is violated, heavy penalties may be imposed; extra-territorial application may also be implemented. The European Union may allow a country with the equivalent level of privacy protection to enjoy a free flow of data although it is up to the discretion of the European Union to decide which countries meet this requirement. This means that big countries such as the United States and Japan may be able to negotiate with the European Union for a free flow of information while small newly developed economies may not get such access.

The problem is that the GDPR sets strict data localisation as its default position. This is like applying a positive-list approach in trade liberalisation, allowing free trade only in permitted goods. Such an approach tends to be over-protective, restricting trade further than necessary, and hinder-

104 Some scholars claim quite the opposite to the author's view in this respect. For example, Jane Kelsey, argues that the CPTPP is too America-centric and impinges on the ASEAN member states' efforts to maintain their regulatory sovereignty and policy space. Jane Kelsey, "The Risks for ASEAN of New Mega-Agreements that Promote the Wrong Model of e-Commerce." ERIA Discussion Paper, October 10, 2017, http://www.eria.org/publications/discussion_papers/index.html.

105 See the education portal of the EU General Data Protection Regulation at https://www.eugdpr.org/

ing active economic activities.[106] On contrary, the CPTPP takes a kind of negative-list approach, which tries to minimise the extent of restrictions and negative effects on economic activities.

Many countries across the world are strengthening data localisation regulations for various reasons.[107] China is one of them.[108] Its motivation includes infant industry protection as well as information control and public order. China's Cyber-security Law that came into effect in June 2017 imposes strong restrictions on data flows and generates considerable uncertainty in business operations.[109]Some ASEAN member states, including Vietnam, are also about to introduce data localisation requirements.

Rule making on e-commerce is actively discussed in various international fora, including the World Trade Organization and Asia-Pacific Economic Cooperation (APEC).However, the approaches taken by countries are still widely different, and it is difficult to catch up with rapidly changing business realities. Regional agreements such as the CPTPP must take the initiative to push forward international rule making in this field.

CONCLUDING REMARKS

Policies that call for data localisation or restrict the free flow of information do have their own logic in national interests, but such restrictions must not be excessive. From the viewpoint of trade economists, the differences

106 Bauer, Ferracane, Lee-Makiyama, and Marel claim the importance of free flow of data in the EU and try to quantify the cost of data localisation measures. See Matthias Bauer, Matthias, Martina F. Ferracane, Lee-Makiyama, Hosuk, and Erik van der Marel, "Unleashing Internal Data Flows in the EU: An Economic Assessment of Data Localisation Measures in the EU Member States." ECIPE Policy Brief No. 03/2016, http://ecipe.org/app/uploads/2016/12/Unleashing-Internal-Data-Flows-in-the-EU.pdf

107 For a listing of representative data localisation regulations in a number of countries across the world, see Nigel Cory, "Cross-Border Data Flows: Where Are the Barriers, and What Do They Cost?" ITIF Reports, Information Technology & Innovation Foundation, May 1, 2017, http://www2.itif.org/2017-cross-border-data-flows.pdf

108 Ferracane and Lee-Makiyama (2017) review the rapid evolution of digital barriers in China.

109 See KPMG China, "Overview of China's Cybersecurity Law." IT Advisory, February 2017, https://assets.kpmg.com/content/dam/kpmg/cn/pdf/en/2017/02/overview-of-cybersecurity-law.pdf

between the negative-list and positive-list approaches are not just a matter of degree. The negative-list approach has a clear advantage in discouraging countries from applying excessive restrictions. The success of actual policies will depend on available resources and technologies, and their implementation.

Part III: Question-and-Answer Session

Note: Q, A and C refer to Question, Answer and Comment, respectively

Q (Kawai):

Japan is on its way to sign free trade agreements (FTAs) with the European Union and the 11 members of the Trans-Pacific Partnership (TPP11 or the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, CPTPP). Other countries also have FTAs with both the United States and European Union. It would be beneficial if we could analyse the contents of the e-commerce chapters in those agreements. I agree that we should encourage China's participation in global e-commerce agreements and free data-sharing.

A (Kimura):

South Korea and the European Union have made more data available, while Switzerland, South Korea, Japan, and Australia have introduced e-commerce chapters, but not data localisation clauses.

Q (Kikuchi):

There seems to be a lot in common between policies on e-commerce and those on goods and services. What are the comparable policies on them, for example, in the European Union?

A (Kimura):

On making the analogy between e-commerce and goods and services, China seems to be very protective for now, with tough data regulations, even though some freedom is selectively allowed. In general, regulations create costs for domestic and international players. Even in the European Union, there are differences in how players see and implement certain policies, although within an overarching framework.

Q (Mieno):
How do the reputations of companies in terms of corporate governance and of countries in terms of their political systems affect financial transactions and e-commerce operations for the current and aspiring CPTPP members, for example, China?

A (Kimura):
Actually, the language of the CPTPP is rather abstract. It has an e-commerce clause, but those relating to financial transactions are not clear, even though there is already a precedent of cross-border cooperation between the participants on certain regulatory elements covering financial transactions. However, since the language of the document is abstract, it remains to be seen whether implementation of its clauses will adhere to its spirit or show divergent practices.

C (Kawai):
I think ASEAN can benefit from China–Japan competition on infrastructure development. But this competition may further intensify at country levels such as in Indonesia, Myanmar, and the Philippines. Infrastructure projects led by China and Japan in ASEAN should have similar guidelines so that consistency can be guaranteed by stakeholders and international organisations. Each ASEAN country can in fact be a stakeholder, as regional connectivity requires cross-border cooperation. The capacity to coordinate these cross-border projects is very important. ASEAN as an organisation or other regional organisations such as the ADB can play an important role in this respect. To coordinate well, the organisation may need financial instruments and enough operational capacity, whether the projects are led by China or Japan, or some multilateral development organisation, such as the ADB, AIIB and the World Bank.

C (Kikuchi):
China's economy is more than two times bigger than Japan's, and the gap will increase. China's per capita income will increase further, too. However, there are many reasons for China and Japan's motives to be different in their approaches to value chains, for example. There may be a significant deal of complementarity in the interactions of China and Japan with the entire region.

C (Mieno):
China's BRI does not have very clear motivations. Shallow discussions of the BRI at international forums do not yield any clarification, and the project's ideologies remain unclear. Besides, the BRI may be driven by the internal affairs and domestic economic needs of China. Japan's decision to name its initiative the "Partnership for Quality Infrastructure" (PQI) seems to have a deliberate accent on the word "quality". The potential for mutual cooperation is vast and needs more investigation. Cases of countries such as Myanmar, with growing Chinese investments and their consequences, give good understanding. Looking into individual cases and the organisational dynamics of the BRI and PQI will be important.

Concluding Policy Proposals

Tomoo Kikuchi and Masaya Sakuragawa

With the US share of world GDP declining, the US presence is weakening, even in Southeast Asia. Most countries in the region now trade more with China than with the United States. If ASEAN were a single country, its GDP today would be the seventh largest economy in the world. Some project ASEAN to be the fourth largest economy by 2050.

The preceding chapters represented the frontier of discussions in financial cooperation, FDI flows, local currency trade invoicing, electronic currencies, infrastructure investment and e-commerce surrounding ASEAN. In a rapidly changing external environment, we think that financial cooperation is more important than ever. This book has presented ideas for developing financial markets that channel savings into investment within the region, on which realising the full growth potential of the region depends.

Since the Asian financial crisis of 1997, local currency bond markets have grown in the region (Chapter 3). Regional financial safety nets have been strengthened by the Chiang Mai Initiative Multilateralisation (CMIM) and the establishment of the ASEAN+3 Macroeconomic Research Office (AMRO) (Chapters 8, 9 and 10). On the other hand, the share of local currency invoiced trade in ASEAN remains low (Chapter 12). There are also new challenges. The rapid expansion of electronic currencies requires new regulations (Chapter 13). China and Japan are competing for influence over ASEAN in infrastructure exports (Chapter 14). E-commerce is changing the patterns of production and consumption and requires new policy responses (Chapter 15).

The underdevelopment of financial markets in ASEAN is reflected in the following areas. First, ASEAN depends highly on foreign direct investment (FDI) for economic growth (Chapters 5 and 6). Second, ASEAN firms depend more on self-financing than external finance (Chapter 4). Third, ASEAN is a net capital exporter and has accumulated large foreign reserves. In response, this book makes proposals in the following areas: (1) Strengthening the resilience of ASEAN against potential financial crisis; (2) Creating a conducive macroeconomic environment for investment in ASEAN; and (3) Developing equity and bond markets for long-term investment in ASEAN.

1. STRENGTHENING RESILIENCE OF ASEAN FOR POTENTIAL FINANCIAL CRISIS

The origin of the CMIM was a backlash against the IMF's structural adjustment policies in the wake of the Asian financial crisis. An Asian safety net has since been developed. Pitakdumrongkit, Rana and Khor (Chapters 9, 8 and 10) agree on the importance of strengthening the regional financial safety net. The total size of the CMIM is currently US$240 billion. In case of a balance of payments crisis, any central bank of the ASEAN+3 countries as well as the Monetary Authority of Hong Kong is entitled to request for swapping its local currency with the US dollar. The swap amount is specified in the CMIM Stability Facility and a drawing of up to 30 per cent of each CMIM party's swap quota can be made without being linked to any IMF programme. Hence, the parties still depend heavily on the IMF to make up for the shortfall beyond what the CMIM offers. Pitakdumrongkit (Chapter 9) suggests raising the size of the CMIM and its IMF de-linked portion as well as clarifying the lending conditions for activating the CMIM-Precautionary Line. Both Pitakdumrongkit and Rana (Chapters 9 and 8) agree that the CMIM-IMF coordination should be further enhanced in terms of co-lending, surveillance, and capacity training. For instance, the relevant stakeholders should synchronise the IMF's and CMIM's conditionalities (e.g., length of arrangements and repayment periods) for smoother co-financing. The CMIM and the IMF should also share more information between them to help monitor macroeconomic conditions in the region and to design currency swap arrangements and the disbursing of financial support in a timely manner. Furthermore, Pitakdumrongkit (Chapter 9) suggests a stronger representation of ASEAN in AMRO's senior management to raise AMRO's legitimacy as an international organisation of all ASEAN+3 countries.

The experience of the Eurozone fiscal crisis may be insightful for Asia. The so-called "troika" of the IMF, the European Commission, and the European Central Bank (ECB) initiated fiscal stabilisation policies, including debt reduction programmes, bank rescue packages and outright monetary transactions by the ECB. The IMF eventually played a limited role and supplied only 10 per cent of the total funds while Germany played a key role in resolving the crisis. This suggests that Japan and China would need to be responsible for resolving a possible financial crisis in Asia. The commitment and cooperation of the two countries would reduce the region's dependence on the IMF and direct the way to transform the CMIM into a full-fledged Asian monetary fund.

2. CREATING CONDUCIVE MACROECONOMIC AND FINANCIAL ENVIRONMENTS FOR INVESTMENT IN ASEAN

The ASEAN countries depend on FDI from the advanced countries for their economic growth, and at the same time on the US dollar for intra-ASEAN trade and financial transactions. They face new challenges in the area of electronic currencies, infrastructure investment, and e-commerce.

Lee (Chapter 5) observes that FDI in ASEAN is skewed towards a few countries and sectors, especially the financial sector in Singapore. To attract more FDI, the ASEAN countries should act together to promote a better and more integrated environment for foreign investors. Countries that lag behind should reduce the political risks that investing in them poses. While restrictions on FDI should be relaxed, governments cannot loosen environmental and labour standards in exchange for FDI.

To expand the scope of local currency transactions vis-à-vis the dominant US dollar invoiced transactions, Sato (Chapter 12) suggests expanding the membership of the Local Currency Settlement Framework (LCSF). The LCSF was launched on 11 December 2017 by Bank Indonesia, Bank Negara Malaysia, and Bank of Thailand. Moreover, further financial liberalisation needs to be considered in LCSF countries as only appointed banks are currently allowed to do local currency business.

Kaji (Chapter 13) calls for international policy coordination to regulate the use of electronic currencies. Policy authorities need to share among themselves the latest developments in the area so that they can design regulatory policies against technology giants such as Alibaba and Tencent monopolising the markets. Berger (Chapter 14) argues that ASEAN members should strengthen both the ASEAN Secretariat and the ASEAN Connectivity Coordinating Committee (ACCC) to ensure that regional infrastructure projects are economically viable, properly designed, and complement each other. Kimura (Chapter 15) stresses the importance of a free flow of data in e-commerce and suggests a negative-list approach, which minimises the extent of restrictions on economic activities.

In addition, we suggest establishing a currency clearing system to support financial transactions in the region. A clearing arrangement across multiple currencies, such as the global Continuous Linked Settlement (CLS) service, would eliminate settlement risks for securities and currencies, clear each currency on a payment-versus-payment basis, and facilitate financial transactions among Asian countries. Such a system can collect data for financial transactions and calculate the accurate ratio of the Asian currency basket. The creation of an autonomous settlement system will be an important step towards monetary integration in Asia.

3. DEVELOPING EQUITY AND BOND MARKETS FOR LONG-TERM INVESTMENT IN ASEAN

Financial markets in Asia need to channel regional savings into regional investments more effectively, which would also help reduce the trade imbalance with the United States. Kawai (Chapter 3) has made several concrete suggestions. First, the membership of the Asia Region Funds Passport (ARFP), which currently includes Australia, Japan, New Zealand, South Korea and Thailand, should be expanded. The ARFP will allow units of funds authorised in a participating country to be offered in other participating countries. Second, the corporate bond rating scale across countries, which will continue to support the issuance of corporate bonds in the region, should be harmonised. Third, multilateral initiatives, which are already in place, should be strengthened. For example, the Credit Guarantee and Investment Facility (CGIF) should be utilised more to provide credit guarantees for local currency denominated bonds issued by investment grade companies in the region. Multilateral development banks such as the Asian Development Bank (ADB) and the Asian Infrastructure Investment Bank (AIIB) and bilateral agencies should provide technical assistance for capacity building to governments in the region.

Mieno (Chapter 4) emphasises the importance of taking the demand for long-term capital into consideration when developing financial markets.

The demand for long-term capital in ASEAN has grown in the consumption sector, in infrastructure investment, and for driving innovations in the manufacturing and service sectors. Going forward, technological adoption, government commitment, and institutional risk absorption will become more important for long-term capital markets to develop.

In addition, establishing markets for safe assets in currencies issued by Asian countries is the key for long-term investments in Asia. The ASEAN+3 countries have relied too much on US treasury securities for their foreign reserves. Japan and China need to make efforts to improve the credibility of their government bonds in Asian financial markets. China has to move towards a more transparent exchange rate regime from the current de facto peg to the US dollar. Japan has to improve its fiscal soundness by decreasing the outstanding government bonds that amount to over 200 per cent of GDP. If China increases its holding of Japanese government bonds as foreign reserves, and Japan cooperates with China and its BRI to invest in infrastructure, the two countries can develop Asian markets for safe assets denominated in Asian currencies and support long-term investment in Asia.

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