The Asian Bond Markets Initiative: Policy maker achievements and challenges

The Asian Bond Markets Initiative (ABMI) was launched in December 2002 by the Association of Southeast Asian Nations (ASEAN) and the People's Republic of China, Japan, and the Republic of Korea—collectively known as ASEAN+3—to develop local currency (LCY) bond markets and promote regional financial cooperation and integration to strengthen financial stability and reduce the region's vulnerability to the sudden reversal of capital flows.[1] At the national level, member countries have undertaken sweeping reforms to improve macroeconomic management and deepen financial market reforms. These largely successful reforms have led to an improvement of macroeconomic fundamentals and growth prospects, and reduced sovereign risk. They have also pulled capital into the region, and recently through both the banking sector and capital markets, especially after the global financial crisis, amid low interest environment in advanced economies. However, with accelerating portfolio flows, international investors' holdings of sovereign debt grew rapidly. Furthermore, low United States (US) dollar interest and exchange rates over the past several years have spurred the growth of member countries' US dollar-denominated corporate debt. Taken together, these factors have exposed the region to an additional source of market volatility and the pressures of fluctuating capital flows, especially considering expected interest rates hikes in the US over the next two years.

This paper presents a comprehensive review of what ASEAN+3 policy makers have achieved under ABMI and what they are planning to do next over the medium-term.[2] It also provides recommendations for policy makers' consideration in addressing new sources of market volatility and other challenges within and outside the framework of ABMI.

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[2] The activities supported under ABMI have been funded primarily by the Government of Japan. The Government of the People's Republic of China, the Government of Republic of Korea and Asian Development Bank have also financed activities under the initiative.

I. Introduction

The Asian Bond Markets Initiative (ABMI) was launched in December 2002 by the Association of Southeast Asian Nations (ASEAN) and the People's Republic of China (PRC), Japan, and the Republic of Korea—collectively known as ASEAN+3—to develop local currency (LCY) bond markets as an alternative source of funding to foreign-currency-denominated bank loans to minimize the currency and maturity mismatches that had made the region vulnerable to the sudden reversal of capital inflows. Policy makers in the ASEAN+3 region have also aimed to promote regional financial cooperation and integration under ABMI. This approach is based on the rationale that more developed and integrated LCY bond markets would enable the economies in the region to mobilize domestic savings to finance their long-term investment needs and reduce their vulnerabilities to the reversal of capital flows. Since ABMI's launch, the Asian Development Bank (ADB) has been working with ASEAN+3 and serving as Secretariat to provide technical support for the implementation of the initiative.

Between 2003 and 2008, capital surged out of advanced economies and into emerging markets, particularly to emerging East Asia[3], driven by the region's strong growth prospects. These flows ended abruptly with the onset of the 2008-2009 global financial crisis. Resulting from the impact of highly accommodative monetary policies in advanced economies and the resilient performance of economies in emerging East Asia, capital was again flowing back into the region by the later part of 2010. However, this time the flows have also been channeled through capital markets, including LCY bond markets, as investors searched for higher yields amid the low interest rate environment in advanced economies.

With increasing international investor participation, capital flows have exposed economies in the ASEAN+3 region to additional sources of market volatility. As witnessed in November 2016, the currency and bond markets in the region were confronted with a heavy selloff after the unexpected outcome of the United States presidential election. The new administration's plans to increase expenditures for infrastructure and to implement tax cuts have increased the likelihood of the Federal Reserve raising interest rates more aggressively over the next two years. The developments in November 2016 were reminiscent of the market's reaction in May 2013 when investors' withdrawal from emerging market economies, including ASEAN+3 economies, caused a sharp rise in bond yields and the depreciation of local currencies after the Federal Reserve signaled the tapering of its quantitative easing program.

Section II of this paper provides background information on ABMI, including activities supported under the initiative to achieve policy makers' objectives. Section III discusses progress made under ABMI during the past 8 years, other regional initiatives and the direction of ASEAN+3 over the medium-term. Section IV discusses bond market development since the launch of ABMI and identifies remaining and new challenges in strengthening financial stability. Section V proposes policy recommendations to address some of these challenges.

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[3] Emerging East Asia refers to the People's Republic of China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

II. Background

During the initial phase of ABMI (2002–2007), ASEAN+3 policy makers focused on providing the foundation and infrastructure for LCY bond markets. They aimed to create a supply of LCY-denominated bonds by improving access to bond markets for a wide variety of potential issuers; develop bond market infrastructure, including settlement systems, rules, and regulations concerning transactions; and strengthen the capacity of domestic credit rating agencies. To promote demand for LCY bonds, a website (*www.AsianBondsOnline.adb.org*) was established for disseminating information on market developments and guiding purchases of LCY bonds. Studies were prepared to assess impediments to cross-border bond transactions, including foreign exchange transactions and settlement, and technical assistance was provided to member countries to develop domestic LCY bond markets based on their individual requirements.

In determining policies and activities to promote the development of the region's bond markets, ASEAN+3 policy makers met five times per year and conducted policy dialogues and discussions among themselves as often as required. They also held seminars and conferences to solicit views from academics, think tanks, and market participants. Once policy makers reached consensus on policies to support under ABMI over the medium-term, a road map outlining policy actions was prepared for members to implement over a 3-year period. As ASEAN+3 does not specify numerical targets for members to achieve within a certain timeframe under ABMI, member countries are encouraged, but not required, to implement the recommended measures provided in areas specified under a road map. To ensure relevance and effectiveness, policy makers undertake a periodic review of the progress made under a road map every 3–4 years. Based on their assessment of the progress made, policy makers determine whether to include new activities to address challenges in line with market developments and policy makers' priorities, or to end support for activities that no longer require support.

To demonstrate their renewed commitment to ABMI, ASEAN+3 officials prepared a new medium-term road map in 2008 to focus on activities in four areas: (i) promote the issuance (supply) of LCY-denominated bonds, (ii) facilitate demand for LCY-denominated bonds, (iii) strengthen the regulatory framework, and (iv) improve bond market infrastructure.

Under the first area, policy makers focused on the establishment of a regional credit guarantee and investment facility to facilitate potential issuers' access to debt markets. The promotion of an Asian currency note program (or common bond issuance program)—to enable an issuer with a good credit rating to issue bonds in the ASEAN+3 region using a single unified framework with a common set of documents governed by common law—was also introduced to help identify the challenges of using common standards for bond issuance within the region. Under the second area, policy makers agreed to broaden and diversify the investor base to promote demand for LCY bonds. Under the third area, they worked to improve regulations related to facilitation and collaboration (among securities dealers associations and self-regulating organizations) on capital flows and foreign exchange transactions to enhance cross-border transactions and the dissemination of information on bond market developments in the region. Under the fourth area, ASEAN+3 targeted the improvement of market infrastructure for securities settlement, market liquidity, and improved credit rating practices among domestic credit rating agencies. Options to improve securities settlement and market liquidity were also explored under the 2008 road map.

A subsequent road map prepared in 2012 targeted the same four objectives. With bond markets developing rapidly in some member countries, policy makers also shifted their attention to activities that produce more "tangible" results—with more visible outcomes. These include launching guarantee operations under the Credit Guarantee and Investment Facility (CGIF), developing infrastructure-financing schemes, enhancing activities under the Asian Bond Market Forum (ABMF) by introducing a common bond issuance program to foster the harmonization and standardization of regulations, facilitating the establishment of a regional settlement intermediary to reduce cross-border bond transactions and settlement, and strengthening the foundation for a regional credit rating system.

Activities in the four areas have since been implemented by four separate task forces. In addition, a Technical Assistance and Coordination Team (TACT) was established to provide support to individual ASEAN member countries (based on their individual requirements) to promote bond market development. Activities supported under Task Force 1 are co-chaired by the PRC and Thailand, activities under Task Force 2 by Japan and Singapore, activities under Task Force 3 by Japan and Malaysia, and activities under Task Force 4 by the Republic of Korea and the Philippines. TACT is co-chaired by Brunei Darussalam, the Lao People's Democratic Republic (Lao PDR), and Viet Nam (Appendix 1). While the co-chairs of the individual task forces have remained unchanged since 2012, the ABMI co-chairs rotate annually among member countries. This arrangement does not only make it possible for member countries to share in the overall responsibility of making progress on ABMI objectives and but also ensures that the co-chairs of individual task forces oversee the implementation of activities under their immediate purview for a longer period of time.

III. Progress Made Since 2008

Prior to 2008, activities supported under ABMI mainly provided the basic building blocks for LCY bond markets. As such, the review of policies supported under ABMI focuses largely on activities during 2008–2016 as policy makers aimed to achieve more visible outcomes and build a part of the financial architecture essential for regional financial integration. The findings of the review are summarized below.

Task Force 1: Promoting the Issuance (Supply) of Local-Currency-Denominated Bonds

From the beginning, it was clear that to spur LCY bond market development, quality issuers had to be developed. To achieve this objective and promote the issuance of LCY-denominated bonds, ASEAN+3 established CGIF as an ADB trust fund in 2010 to provide credit enhancement to increase the access of investment-rated firms to LCY bond markets and lengthen the maturities of their bonds. With CGIF guarantees, eligible firms will be able to meet their long-term financing needs by tapping domestic bond markets and markets across the region. CGIF as such will help reduce firms' dependency on short-term foreign currency loans and minimize their vulnerability to sudden reversals of capital flows to the region.

It was also envisaged that CGIF will help broaden the investor base by providing increased credit protection to domestic investors with highly restrictive investment criteria. Moreover, as CGIF was established as a key part of a regional initiative that was developed through cooperation and collaboration among ASEAN+3 policy makers on financial issues of common interest for cooperative regional solutions, it could be also a model for future regional initiatives. Lastly, as CGIF provides guarantees for bonds across the region, policy makers believe that it will promote the harmonization of standards and practices for bond issuance within ASEAN+3, paving the way for regional financial market integration.

During its initial phase of operations, CGIF used a leverage ratio of 1:1 for its capital of $700 million. As its guarantee operations expanded, its leverage ratio was raised from 1:1 to 1:2.5 and its guarantee capacity was raised from $700 million to $1.75 billion. As of March 2017, CGIF had issued 17 credit guarantees (cumulatively valued at $1.062 billion) for bonds issued by 13 companies in 8 ASEAN member countries. The CGIF board also recently approved three additional guarantees amounting to $310 million. In 2016, CGIF extended a co-credit guarantee with ADB for a P10.7 billion 10-year bond, the first Climate Project Bond certified by the Climate Bond Initiative in emerging East Asia. The bond was issued by AP Renewables Inc. for the development of Tiwi-MakBan geothermal energy facilities in the Philippines. This marked a milestone for CGIF in its support of the Philippine LCY bond market and its promotion of green LCY bonds for infrastructure development in support of ASEAN+3's transition to a low-carbon region.

Develop infrastructure financing schemes. To initiate the development of an infrastructure financing scheme in the LCY bond market in Thailand for member countries from frontier markets, authorities in Thailand introduced a regulation allowing sovereign issuers with no sovereign rating to issue sovereign bonds in the LCY bond market in Thailand. This has made it possible for the Government of the Lao PDR to issue sovereign bonds to finance its domestic infrastructure projects. The first batch of cross-border sovereign issuance was conducted in 2013. By the end of 2015, the Government of the Lao PDR had issued four batches of bonds. The last batch was a triple-tranche issue amounting to THB12 billion and was the first Lao PDR issue ever to be rated. It is expected that similar arrangements could be made for other member countries seeking to issue bonds for infrastructure development in the LCY bond market in Thailand.

A study on expanding the use of LCY bonds for infrastructure finance in the region, *Local Currency Bonds and Infrastructure Finance in ASEAN+3*, was also prepared for policy makers' consideration. Financing infrastructure projects with long-term LCY bonds instead of short-term bank loans denominated in foreign currency is highly desirable as this makes the projects less vulnerable to currency and refinancing risks, especially if they generate revenue in the local currency. In particular, the study addresses two questions: (i) Why is LCY bond financing not more widely used for infrastructure projects in the region?; and (ii) What can be done to promote infrastructure bond financing to address the infrastructure development gap? The study was completed in 2015 and policy recommendations on expanding the use of LCY bonds for infrastructure finance were disseminated to all members for consideration.[4] The study is available for public information on www.AsianBondsOnline.adb.org.

Task Force 2: Facilitating Demand for Local-Currency-Denominated Bonds

To achieve this objective, ASEAN+3 established a website, *www.AsianBondsOnline.adb.org, to* provide data and analyses on LCY bond markets in ASEAN+3, as well as a step-by-step primer on the mechanics of buying and trading Asian government securities. This website also provides information on related custodian and registry arrangements and internet links to market sources. Bond market guides for 11 markets in the ASEAN+3 region--which include information on legal and regulatory frameworks, characteristics of the domestic bond market, taxes, trading market infrastructure in individual markets--are also available on the same website.

Efforts to bring leading market participants to discuss reforms and market developments, challenges, and opportunities in their respective markets at the Asian Bond Markets Summit over the past 11 years has also been encouraged to promote investment in LCY bonds issued by emerging East Asia. Under Task Force 2, policy makers have also sought to expand the demand for LCY bonds by encouraging the broadening and diversifying of the investor base. A broader and more diversified investor base with a greater range of different investment objectives and investment strategies would help enhance market liquidity by creating trading opportunities and reduce market volatility by allowing bonds exhibiting different investment risks to be held by those capable of bearing them. A study with recommendations on measures to broaden and diversify investor base for LCY bonds in ASEAN+3 was prepared and disseminated for policy makers' consideration in 2012.[5] The study is available on *www.AsianBondsOnline.adb.org*.

Policy makers also commissioned a study on *Facilitating Foreign Exchange Risk Management for Bond Investment in ASEAN+3* to reviews the foreign exchange (FX) and FX hedging markets in the region and propose recommendations for policy makers' consideration to facilitate the development of the markets and FX risk management. The study is available on the same website.[6]

To enhance financial access for consumers and small and medium-sized enterprises (SMEs) through LCY debt markets, several securitization projects, including the securitization of auto loans based on Islamic principles and the securitization of consumer loans, were encouraged by the co-chairs of Task Force 2.

Task Force 3: Strengthening the Regulatory Framework

To facilitate market integration, ASEAN+3 policy makers looked to the approaches undertaken by the European Union (EU) in harmonizing and coordinating the diverse interests of member countries and financial institutions. The EU established the Giovannini Group in 1996, comprising representatives from the European Commission, banks, brokers, exchanges, central counterparties, and central securities depositories (CSDs) to advise the European Commission in making decisions regarding financial markets. The Giovannini Group identified inefficiencies in EU financial markets

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[4] ADB. 2015. *Local Currency Bonds and Infrastructure Finance in ASEAN+3*. Manila.

[5] ADB. 2013. *Broadening the Investor Base for Local Currency Bonds in ASEAN+2 Countries*. Manila.

[6] ADB. 2015. *Facilitating Foreign Exchange Risk Management for Bond Investment in ASEAN+3*. Manila.

and proposed solutions to enhance cross-border transactions. One of the Giovannini Group's most important contributions was its report on barriers to cross-border clearing and settlement within the EU and the strategies for their removal.[7]

Based on the experience of the EU, ASEAN+3 policy makers established a Group of Experts on Cross-Border Bond Transactions and Settlement Issues (GoEs) in 2008 to provide advice to governments on cross-border clearing and settlement issues to foster regional bond market development and integration. The GoEs was given two missions: (i) evaluate the feasibility, particularly the business case, of selected options for a regional settlement intermediary; and (ii) identify the barriers to cross-border bond transactions and settlement in ASEAN+3. The GoEs comprised representatives of 17 domestic and 9 international member institutions, including CSDs, local custodians, and global custodians. As Secretariat to ABMI, ADB provided technical support to the GoEs.

Based on the recommendations of the GoEs, policy makers established the ASEAN+3 Bond Market Forum (ABMF) in May 2010 as a common platform to foster standardization of market practices and harmonization of regulations relating to cross-border bond transactions in the region. The ABMF is expected not only to lead the region toward more harmonized and integrated markets, but also to act as the link between ASEAN+3 and the rest of the world in international standard setting and rule making. This is essential as, unlike Europe, there is no supranational body comparable to the European Commission to coordinate the member countries and enact rules and regulations uniformly applicable in the region.

The GoEs found varying degrees of regulatory and settlement barriers across member countries. The regulatory barriers include (i) foreign investor quotas—limits on the amount of investment that a nonresident investor (or nonresident investors as a whole) can make in a local market; (ii) foreign investor registration; (iii) currency exchange controls; (iv) cash controls—restrictions on nonresidents holding credit balances in LCY or short-term investments in money market instruments, and restrictions or prohibitions on nonresidents borrowing in local currency; (v) withholding taxes imposed on nonresident investors, whether in connection with income or capital gains; and (vi) restrictions on the use of omnibus accounts for nonresident investors.

The settlement barriers were found to include (i) messaging standards—the non-use of international standards for securities messaging; (ii) securities numbering—the non-use of international standards for securities numbering; (iii) settlement cycle—longer settlement period than a standard settlement cycle; (iv) trade and settlement matching—absence of automated matching in some countries is likely to lead to increased failed settlement; and (v) dematerialization of bonds—instead of physical certificates—to reduce the need for examination, risk of loss, and damages and costs of storage. These barriers are perhaps unlikely to prevent inward investment, but they add to the cost of investing.

A survey conducted in 2012 by a team of ABMF experts confirmed that significant work has been done to identify, address, and reduce barriers to cross-border bond investment. Nevertheless, significant cross-border restrictions remain, albeit to lesser degrees. Reflecting these reduced

[7] ADB. 2010. *Asian Bond Markets Initiative Group of Experts (GoEs) Report for Task Force 4*. Manila.

restrictions, transaction costs are still higher than those in other regions, although they are on a downward trend. Moreover, as the settlement barriers are being addressed jointly by policy makers and market participants under ABMF, they are expected to gradually diminish. Over the medium-term, national CSDs are also expected to be linked with those of other participating member countries as the central banks work together to reduce risks related to cross-border bond transactions. Nevertheless, most of the regulatory impediments identified by the GoEs—particularly quotas, currency and cash controls, and withholding taxes—remain unchanged. This is because these measures have been put in place to moderate capital flows and as such are expected to be relaxed only gradually.

ABMF consists of two forums: Sub-Forum 1 (SF1) and Sub-Forum 2 (SF2). SF1 conducted a study to provide policy recommendations for the development of the ASEAN+3 Multi-Currency Bond Issuance Framework (AMBIF), originally known as the Common Bond Issuance Framework, and pilot issuance under AMBIF. SF2 focuses on harmonization and standardization of transaction flows and message items, and the implementation of international standards for electronic data interchange between financial institutions (ISO 20022).

Under SF1, ABMF developed the AMBIF to make it possible for qualified issuers from ASEAN+3 to issue bonds in any participating member country with standardized documentation and well-defined implementation procedures. Under the AMBIF, issuance approval processes are likely to be expedited and issuance costs are expected to be reduced through standardized documentation. The first AMBIF pilot bond was issued on 28 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%.

Based on a survey of the region's transaction flows and settlement infrastructures under SF2, ABMF recommends that ASEAN+3 (i) enhance regional straight-through-processing of bond transactions through standardization, (ii) develop a delivery-versus-payment reference model, (iii) adopt globally established international standards, and (iv) develop a standardization road map.

Task Force 4: Improving Related Infrastructure for Bond Markets

To implement the recommendations of the GoEs, ASEAN+3 policy makers agreed to set up a Cross-Border Settlement Infrastructure Forum (CSIF) to discuss work plans and related processes for the improvement of cross-border settlement in the region, including the possibility of establishing a regional settlement intermediary. Based on discussions among CSIF members, it was agreed that central banks and CSDs in ASEAN+3 will continue to work toward implementing central securities depositories–real-time gross settlement (CSD–RTGS) linkages over the medium-term. The linkages, which were successfully tested through a desktop study conducted by the Bank of Japan and the Hong Kong Monetary Authority, connect existing infrastructure, enable local bonds to be settled in delivery-versus-payment through a central bank, and are compliant with international standards. The CSD–RTGS linkages ensure cost effectiveness and safety of the settlement. Moreover, the linkages will shorten the settlement period to less than 1 day from 2 days after trading and as such could promote new cross-border transactions.

As part of efforts to build market infrastructure, ASEAN+3 policy makers worked with domestic credit rating agencies within the region to form the Association of Credit Rating Agencies in Asia (ACRAA) in 2001. With support from ASEAN+3, ACRAA assisted its members in adopting best practices and common standards to improve members' rating quality and the comparability of ratings throughout the region. ACRAA members also met on a regular basis to exchange ideas, experiences, and information on new developments with rating practices and standards.

Based on the outcome of studies undertaken by the ASEAN+3 Research Group, two options were proposed for ASEAN+3 consideration: (i) establishing a regional credit rating agency, and (ii) improving comparability among credit rating agencies in the region. It was agreed among member countries that the second option could merit the support of policy makers in the future. With respect to raising financial awareness among market participants, including retail investors, a few member countries such as Thailand undertook initiatives prior to 2012 to raise financial awareness. As such, a full-scale discussion at the regional level was deemed unnecessary.

Technical Assistance Coordinating Team

Since 2008, TACT has assisted interested member countries with technical assistance (TA) projects in developing their LCY bond markets. To date, Cambodia and Indonesia each have received six TAs, the Lao PDR has received five TAs, Myanmar two TAs, and the Philippines four TAs.[8] New TAs are currently being implemented in Indonesia and Viet Nam.

Other Regional Initiatives and Sweeping Reforms at the National Level

Prior to ABMI, ASEAN+3 also launched the Chiang Mai Initiative (CMI), the first regional currency swap arrangement launched in May 2000, to provide dollar liquidity for countries experiencing currency crises. CMI comprised the ASEAN Swap Arrangement and a network of bilateral swap arrangements in the form of swaps of US dollars with the domestic currencies of participating countries. In 2010, ASEAN+3 officially implemented Chiang Mai Initiative Multilateralization (CMIM) to replace the existing network of bilateral agreements under CMI with a reserve pooling arrangement totaling $120 billion, together with a weighted voting system for the disbursement of funds and enhanced surveillance capabilities. CMIM is designed to enhance the effectiveness of CMI as a regional liquidity support mechanism to (i) address balance of payment and short-term

[8] In Indonesia, TAs were provided to assist the authorities to prepare a road map to develop the bond market, introduce a primary dealer system, enhance the securities settlement system, restructure and enhance the government debt portfolio, strengthen the legal framework for sovereign *sukuk* (Islamic bond) issuance, and develop a cross-border mechanism for government bonds and *sukuk* instruments. In Cambodia, TACT assisted the authorities with TAs to prepare a road map to develop the bond market, draft regulations on government securities and corporate bonds, and provide capacity development training for officials on debt market regulations. In Lao PDR, TACT assisted the authorities with TAs to prepare a road map for bond market development, develop primary and secondary markets for government securities (including regulations for these markets), and strengthen the settlement system for government securities. In Myanmar, TAs were provided to prepare a road map and work program to develop the bond market, develop primary and secondary markets for government securities, improve financial literacy, and introduce a new issuance scheme of government bonds. In the Philippines, TAs were provided for the preparation of a road map for bond market development, strengthening the credit rating system, developing the securitization market and regulatory framework for interest rate swaps, deepening the corporate debt market, and enhancing hedging and liquidity facilities for the corporate bond market. In Viet Nam, TACT assisted the authorities with TAs to develop a road map for bond market development, strengthen the regulatory framework for corporate and municipal bonds, develop a securitization market and the capacity required, develop information technology for bond trading, and develop a repo market.

liquidity difficulties in the region, and (ii) supplement existing international arrangements. The resources available under CMIM were increased to $240 billion in 2012.

The CMIM offers a crisis prevention facility, CMIM Precautionary Line, and a crisis resolution facility, CMIM Stability Facility. Under both facilities, 30% of the maximum drawable amount by any member is categorized as quick disbursing, while the remaining portion is linked to an International Monetary Fund crisis resolution program.[9] ASEAN+3 has also established ASEAN+3 Macroeconomic Research Office (AMRO), which subsequently became an international organization in 2016, as a regional macroeconomic surveillance unit of CMIM. AMRO focuses on three closely inter-linked functions; (i) conducting macroeconomic surveillance, (ii) supporting the implementation of CMIM, and (iii) providing technical assistance to members for capacity development as needed.[10]

In addition to ABMI and in support of the development of the region's LCY bond markets, the Executives' Meeting of East Asia-Pacific (EMEAP) central bank group launched the US$1 billion Asian Bond Fund 1 in 2003 that allowed members to invest in bonds denominated in US dollars from one of eight sovereign EMEAP issuers other than Australia, Japan, and New Zealand.[11] In 2005, the EMEAP group launched the Asian Bond Fund 2 to invest in LCY bonds issued by sovereign and quasi-sovereign issuers in the same member countries as those in Asian Bond Fund 1. The objective of the initiative was to provide a low-cost product in the form of passively managed index bond funds, broaden investor participation, identify impediments to bond market development in EMEAP economies, and act as a catalyst for regulatory reforms and improvements to market infrastructure.

Based on the outcome of the review by the Bank for International Settlement[12], the catalytic role of Asian Bond Fund 2 included tax reforms, including the removal of the withholding tax for nonresident investors on investment income from LCY bonds; an enhanced regulatory framework for exchange-traded funds; further liberalized foreign exchange administration rules; improving regional market infrastructure and reduced cross-border settlement risk; promoting adoption of documentation in line with international best practices; and introducing a set of credible, representative and transparent bond indices.

At the national level, policy makers in emerging East Asia have undertaken sweeping reforms to address weaknesses in financial markets. These reforms include (i) restructuring the balance sheets of financial institutions to dispose of nonperforming loans, (ii) overhauling bank ownership, (iii) privatizing many state-owned institutions, (iv) revamping macro-prudential regulations and oversight, (v) strengthening risk management of financial institutions and introducing and developing new business products, (vi) improving corporate governance in both financial institutions and corporations, (vii) developing the equities and derivatives markets, and (viii) developing fund management and insurance markets.

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[9] Bangko Sentral ng Pilipinas. 2016. *Chiang Mai Initiative Multilateralization*. Manila.

[10] For more details on AMRO, please see http://www.amro-asia.org/

[11] EMEAP is a cooperative organization of central banks and monetary authorities in the East Asia and Pacific region. It comprises the central banks of 11 economies: Reserve Bank of Australia, People's Bank of China, Hong Kong Monetary Authority, Bank Indonesia, Bank of Japan, the Bank of Korea, Bank Negara Malaysia, Reserve Bank of New Zealand, Bangko Sentral ng Pilipinas, Monetary Authority of Singapore, and Bank of Thailand.

[12] E. Chan et al. 2012. Local Currency Bond Markets and the Asian Bond Fund 2 Initiative. BIS Papers No 63. Basel: Bank for International Settlements.

ASEAN+3 member countries have also improved their fiscal positions, adopted inflation targeting, addressed current account deficits, allowed a more flexible exchange rate, and built up foreign exchange reserves as a buffer against the reversal of capital flows. These reforms have in turn improved their fundamentals and growth prospects, and lowered sovereign risk.

Activities to Support the Asian Bond Markets Initiative over the Medium-Term

To further develop the LCY bond markets and foster regional financial market integration for more resilient financial systems, ASEAN+3 policy makers worked with ADB to assess the progress made under ABMI during 2012–2016. Based on the outcome of this assessment, as provided above, policy makers agreed that over the medium-term the objectives of ABMI will remain unchanged. They also agreed to focus on policies and activities to address three key areas of financing gaps in the region—SMEs, housing, and infrastructure—in addition to those aiming to further advance regional market integration. The policies and activities to be supported over the medium-term will be built on achievements made to date.

Activities to be implemented over the medium-term are categorized into two groups. The first group includes advancing ongoing activities for the achievement of more concrete results by building on existing accomplishments. The second group of activities is related to those that are newly introduced to address existing challenges. Similar to the implementation approach of the previous road maps, where possible, activities proposed for the medium-term will be flexible and updated from time to time to take into account financial market developments. Given the important role of the private sector in developing bond markets, market participants' involvement in the implementation of the ongoing road map will be encouraged. The activities to be implemented under the four task forces over the medium-term (Appendix 2) are discussed below.

Task Force 1: Promoting Issuance of Local-Currency-Denominated Bonds

Considering that CGIF's guarantee capacity is rapidly approaching its limit, the meeting of contributors is exploring different options to expand capacity and broaden its operations to meet the financing needs of the region. These options include CGIF entering into joint guarantees with other entities, collaborating with the private sector, and bringing in risk-sharing partners for guaranteeing infrastructure project bonds. A capital increase for CGIF and a change to its leverage ratio or other solutions to make it possible for CGIF to expand its guarantee operations are also being considered. Should its capacity be increased as expected, CGIF would consider providing credit enhancement for LCY bonds in three key areas where there is a financing gap in the region, including bonds (green and traditional) to finance infrastructure projects, securitized loans to SMEs, and housing loans.

As a continuation of the policy dialogue to expand the use of LCY bonds for infrastructure development in the region, ASEAN+3 policy makers are taking another step to promote LCY green bonds for infrastructure development. Policy makers have recognized that the region has significantly large demand for infrastructure but is exposed to a range of climate conditions and extreme events. Green bonds—fixed-income instruments where the proceeds raised are used to finance clearly defined projects that have environmental benefits, including renewable energy, water conservation, energy efficiency, green buildings, clean transport, and sustainable land use—

supported within the framework of ASEAN+3 would not only help meet the long-term needs of the region but could become an effective investment tool to finance ASEAN+3's transition to a low-carbon region.

Task Force 2: Facilitating Demand for Local-Currency-Denominated Bonds

To further promote demand for LCY bonds over the medium-term, ASEAN+3 will continue to support *AsianBondsOnline* in providing market information and analysis, as well as the findings of studies on new activities to be promoted by ASEAN+3 over the medium-term. *AsianBondsOnline* will be revamped to become more investor friendly, providing information on bond transactions such as bond yields and bond pricing. Arrangements will be made for representatives of ASEAN+3 member countries to participate, together with ADB representatives, in the annual Asian Bond Markets Summit to disseminate information on developments in domestic debt markets to market participants, particularly potential investors.

To meet the growing demand for long-term funding for housing, which is one of the three key areas of long-term funding needs in the region, ASEAN+3 policy makers will promote covered bonds and explore options for expanding the use of LCY bonds for housing finance for member countries' consideration. Similarly, another study will be carried out to explore options to develop municipal finance for urban infrastructure development in selected member countries.

Task Force 3: Strengthening the Regulatory Framework

ASEAN+3 will seek to advance achievements made under AMBIF by promoting cross-border bond issuance and increasing the number of participating member countries. Efforts will be undertaken to increase a variety of bonds and promote inter-ASEAN bond issuance under AMBIF. Cross-border transactions will be carried out to identify regulatory and tax hurdles and constraints on the use of collateral in repurchase agreement markets and to seek solutions to address these constraints for policy makers' consideration.

ASEAN+3 will also promote the adoption of international standards for electronic data interchange between financial institutions, including ISO20022, and standardization of regulatory and tax procedures to facilitate cross-border bond transactions. These activities have already been initiated and will be carried forward over the next 3–4 years. In addition, a study will be carried out to assess the feasibility of establishing an information platform to identify key factors impeding the establishment of electronic trading platforms in member countries.

Task Force 4: Improving Related Infrastructure for Bond Markets

To further improve market infrastructure for cross-border transactions, under CSIF, central banks and CSDs in ASEAN+3 will continue to work toward implementing CSD–RTGS linkages among institutions over the medium-term. The co-chairs are preparing for the establishment of the Asian Prime Collateral Forum in which policy makers and market participants from the region will work together to seek global recognition for sovereign bonds issued by member countries with investment grade ratings as prime collateral for cross-border repo markets. The study will be carried out in close coordination with Task Force 3 and will involve a broad and diversified group of market participants.

Technical Assistance Coordinating Team

Over the medium-term, activities to be supported under TACT will continue to build on the progress made under completed TAs to strengthen market foundations and address the specific requirements of individual member countries.

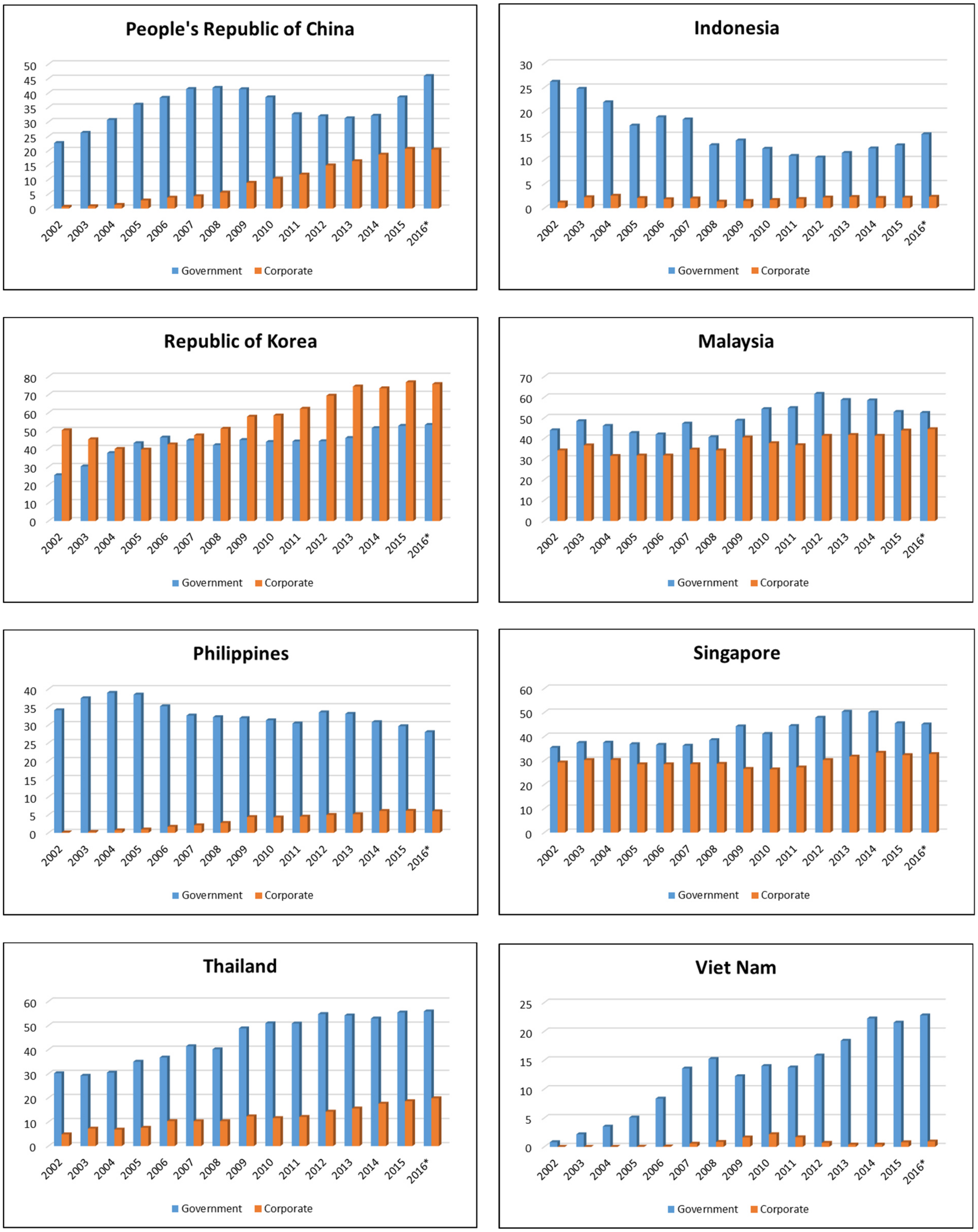
IV. Local Currency Bond Markets Development and New Challenges

In response to the reforms above, LCY bond markets have rapidly developed across the region. From the time ABMI was launched, the total amount of LCY bonds outstanding in emerging Asia has rapidly grown from about $1.1 trillion to about $10.2 trillion in December 2016. Both in absolute value terms and as a percentage of GDP, LCY debt markets have grown in most countries in emerging East Asia during the review period **(Figures 1, 2)**.

Figure 1: Size of Local Currency Bond Markets in Emerging East Asia ($ billion)

Source: *AsianBondsOnline*.

Figure 2: Size of Local Currency Bonds in Emerging East Asia as a Share of GDP (%)

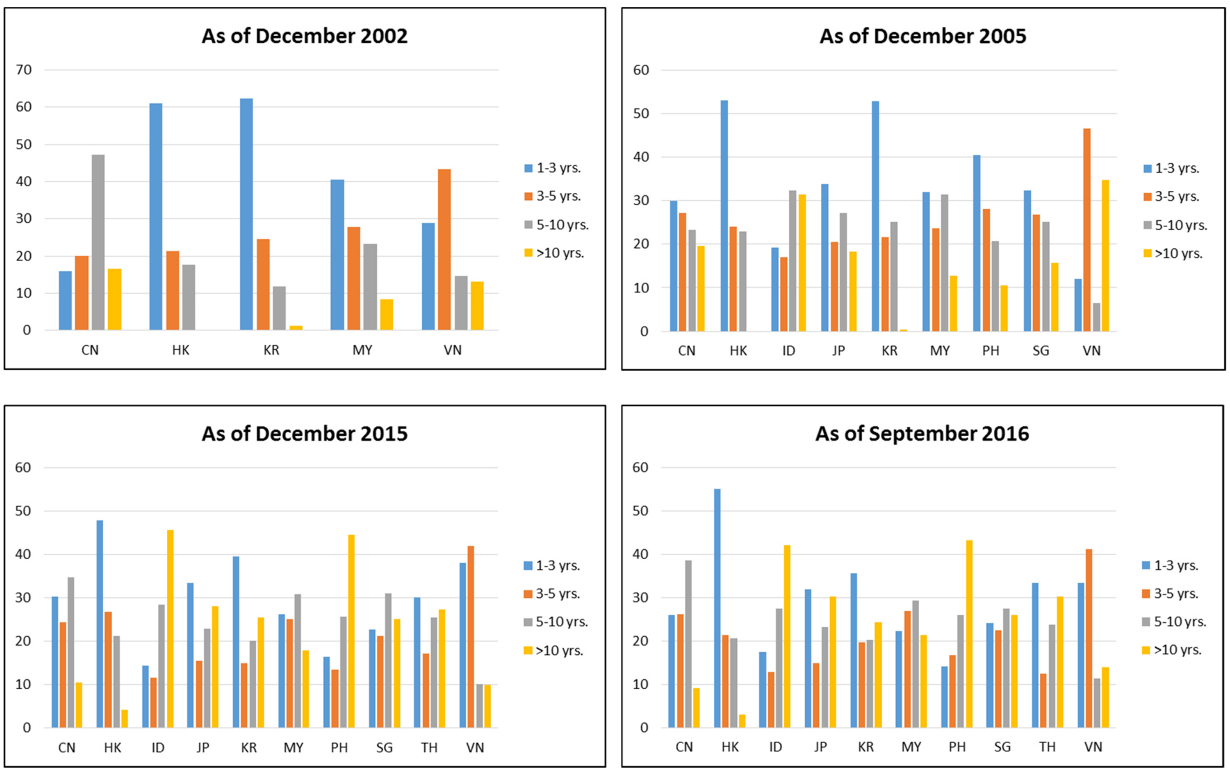


Source: *AsianBondsOnline*.

Over the past decade, LCY bond markets have become the key source of funding for authorities in Indonesia, Malaysia, the Philippines, and Thailand seeking to finance their expenditure programs. With the exception of the Republic of Korea, the LCY bond markets in emerging East Asia are dominated by government bonds. Nevertheless, corporate bond markets are also developing across the region, albeit at a slower pace.

Yield curves have not only become more reliable, but they have also been gradually lengthened and there is now a wider range of benchmark issues **(Figure 3)**. There has also been a wider range of bonds issued, including inflation-linked bonds, green bonds, asset-backed securities, and Islamic bonds. Market liquidity has also markedly improved as LCY debt markets have developed over the past several years. In conducting its annual bond market liquidity survey, *AsianBondsOnline* used two quantitative indicators to measure bond market liquidity in addition to a qualitative assessment of survey participants: (i) government bond market turnover ratios and (ii) bid–ask spreads for on-the-run government bonds.

Figure 3: Local Currency Government Securities Maturity Profile as Share of Total (%)



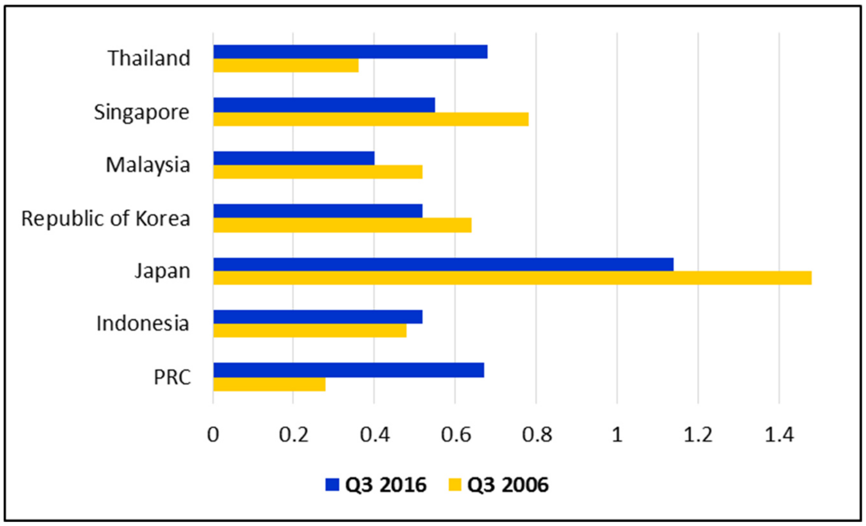
Source: *AsianBondsOnline*.

Figure 4a: Government Bond Bid–Ask Spreads

Market	Bid-Ask Spread (basis points)							
	2004	2010	2011	2012	2013	2014	2015	2016
PRC	32.5	2.2	4.0	2.7	4.1	3.4	5.3	1.0
Indonesia	21.4	4.8	5.0	5.9	7.6	6.0	9.2	5.2
Republic of Korea	4.8	1.1	0.7	0.6	0.7	0.7	0.5	0.5
Malaysia	3.5	2.6	3.3	2.7	3.8	1.7	2.4	2.1
Philippines	25.0	3.1	5.3	2.1	5.4	3.3	3.4	4.6
Singapore	5.5	3.0	3.8	3.1	2.6	2.3	2.0	3.0
Thailand	7.3	3.1	3.3	3.2	2.4	1.9	1.5	2.3
Viet Nam	n.a.	13.2	33.5	30.5	21.7	11.7	15.0	7.2

n.a. = not available, PRC = People's Republic of China.
Source: *AsianBondsOnline.*

Figure 4b: Local Currency Government Bond Turnover Ratios



PRC = People's Republic of China, Q3 = third quarter.
Source: *AsianBondsOnline.*

Based on the outcomes of the surveys, the bid–ask spread for on-the-run government bonds, which provides an indication on the costs incurred to market participants in executing transactions[13], narrowed considerably in most countries in emerging East Asia between 2006 and 2016. The spread dropped from 21.4 basis points to 5.2 basis points in Indonesia, from 25.3 basis points to 4.6 basis points in the Philippines, and from 7.3 basis points to 2.3 basis points in Thailand **(Figure 4a)**.

Government bond turnover ratios measuring trading activity relative to the size of the market—where higher turnover ratios indicate more liquid markets—as estimated by *AsianBondsOnline,* have increased over time, indicating that market liquidity has improved across emerging East

[13] M S Mohanty. 2002. Improving liquidity in government bond markets: what can be done? BIS Papers No 11. Basel, Switzerland:BIS.

Asia.[14] In Thailand, the ratio moved from under 0.40 in 2006 to 0.69 in 2016. This compares to a ratio of 1.5 in 2006 in a more developed market like Japan (prior to the adoption of quantitative easing by the Bank of Japan) and of 1.1 in 2016 **(Figure 4b)**.

As the result of increased demand for government bonds and declines in bid–ask spreads, the average accepted bond transaction size for on-the-run government securities in every emerging East Asian economy increased between 2009 and 2016. During this review period, the average transaction size in the Republic of Korea rose from $8.0 million to $9.1 million, in Malaysia from $1.5 million to $4.3 million, and in Indonesia from $1.5 million to $1.7 million **(Figure 5)**.

Figure 5: Accepted Local Currency Government Bond Transaction Size—On-the-Run ($ million)

Market	2009	2010	2011	2012	2013	2014	2015	2016
PRC	14.28	16.94	15.28	23.23	11.76	10.04	6.82	11.05
Indonesia	1.49	1.91	2.04	1.84	2.05	1.61	0.91	1.72
Republic of Korea	8.02	8.60	8.87	6.46	9.31	9.48	8.44	9.08
Malaysia	1.45	1.99	3.66	10.04	4.76	4.57	4.10	4.27
Philippines	1.10	4.48	3.70	3.03	1.40	1.58	1.07	1.81
Singapore	3.45	8.61	18.30	7.92	6.19	5.29	3.52	5.50
Thailand	1.58	1.86	1.73	4.65	1.92	1.91	1.92	3.79
Viet Nam	2.68	2.26	3.00	2.39	3.16	3.30	2.22	3.36

PRC = People's Republic of China.
Source: *AsianBondsOnline.*

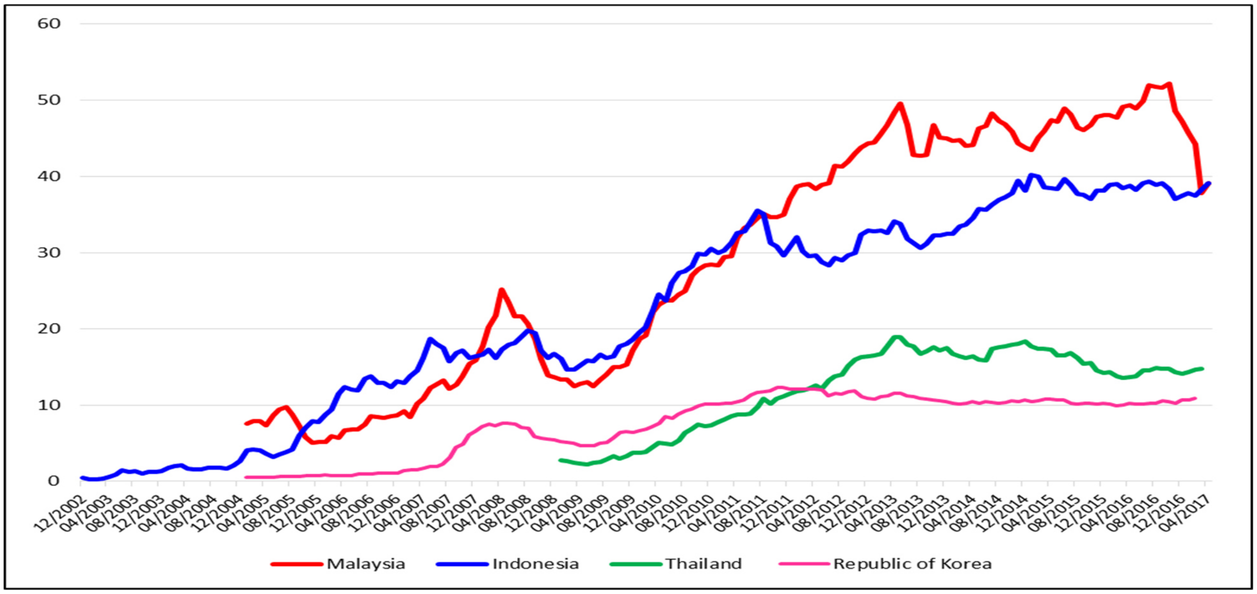
Despite the significant progress shown above, remaining and new challenges resulting from capital flows require policy makers' attention. Following the 2007–2009 global financial crisis, portfolio flows to emerging Asia, particularly fixed-income flows, accelerated as investors were pulled into the region by its stronger economic performance, declining sovereign risk, and relatively higher yields than in advanced economies amid a global financial environment of easy money. Along with accelerating portfolio flows, foreign investor holdings of sovereign debt also grew rapidly **(Figure 6).** This has exposed some economies to an additional source of market volatility and putting pressure on capital flows as the transfer of exchange risk to foreign investors has made portfolio flows more volatile and subject to global risk appetite.[15]

Rising foreign investor participation in LCY government debt markets can help reduce borrowing costs and spread risks more broadly among investors, but it can also raise external funding risks for the government.[16] This is particularly true for markets with narrow domestic investor base and limited hedging instruments as these factors limit the markets' ability to absorb the

[14] *AsianBondsOnline* calculates the turnover ratio by taking the aggregate value of transactions from the sales side (or one side of the trade only) for a particular quarter and dividing it by the average amount of bonds outstanding for the current and previous quarters.
[15] International Monetary Fund. 2014. *Moving from Liquidity to Growth-Driven Markets*: *Global Financial Stability Report*. Washington, DC.
[16] S. Arslanalp and T. Tsuda. 2014. Tracking Global Demand for Emerging Market Sovereign Debt. *IMF Working Paper 14/39*. Washington, DC: International Monetary Fund.

impact of global investors' sell-off of local-currency-denominated assets during periods of market turbulence.

Figure 6: Foreign Holdings of Local Currency Government Bonds (%)



Notes:
1. Malaysia includes Treasury Bills and Malaysian Government Securities.
2. Thailand includes government bonds and Treasury Bills (Bank of Thailand Bonds not included).
3. The Republic of Korea includes Foreign Exchange Stabilization Fund Bonds, Treasury Bonds, and Monetary Stabilization Bonds.

Source: CEIC Data

Highly accommodative monetary policies in advanced economies have not only pulled capital flows to emerging East Asia over the past several years, but also spurred the growth of the region's US dollar-denominated corporate debt as firms in the region borrowed in dollars at more favorable interest rates.[17] In the absence of full sterilization, capital inflows raised local asset prices, including currencies, US dollar debt seemed even more affordable. Looking forward, should the Federal Reserve raise interest rates more aggressively over the next two years as expected, the US dollar would further strengthen, worsening the emerging market debt selloff and making it increasingly difficult for emerging market firms, including those in emerging Asia, to service their US dollar-denominated debt.[18]

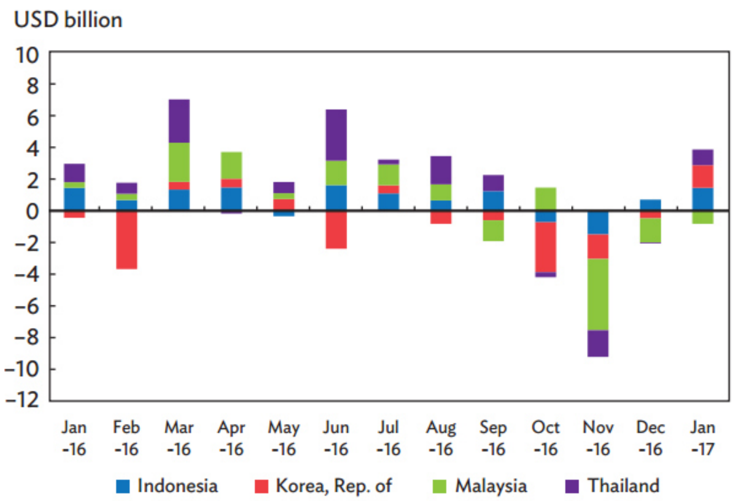
Signs of vulnerability appeared in November 2016, following the outcome of the US presidential election. Asian currencies and bonds came under heavy pressure from investor selloffs. The new US administration's expected economic plan to pump-prime the US economy with government spending and tax cuts could cause the Federal Reserve to raise interest rate more quickly than previously anticipated. Expectations of higher interest rates strengthened the US dollar against most global currencies and raised the yield on US Treasuries making investment

[17] R. McCauley, P. McGuire, and V. Sushko. 2015. Dollar Credit to Emerging Market Economies. *BIS Quarterly Review*. 6 December.

[18] International Monetary Fund. 2015. Vulnerabilities, Legacies, and Policy Challenges: Risks Rotating to Emerging Markets. *Global Financial Stability Report*. Washington, DC: IMF.

assets in emerging market economies relatively less attractive. As the result, foreign bond outflows were posted during the last three months of 2016 in the Republic of Korea, Malaysia, Indonesia and Thailand. The January 2017 data, nevertheless, suggest improved sentiments in the region's bond markets, with most experiencing a net inflow of foreign capital[19] **(Figure 7)**.

Figure 7: Foreign Bond Flows in Emerging East Asia



Notes:
1. The Republic of Korea and Thailand provide data on bond flows.
2. For Indonesia and Malaysia, month-on-month changes in foreign holdings of local currency government bonds were used as a proxy for bond flows.
3. Data provided as of end-January 2017.
4. Figures were computed based on 31 January 2017 exchange rates to avoid currency effects.

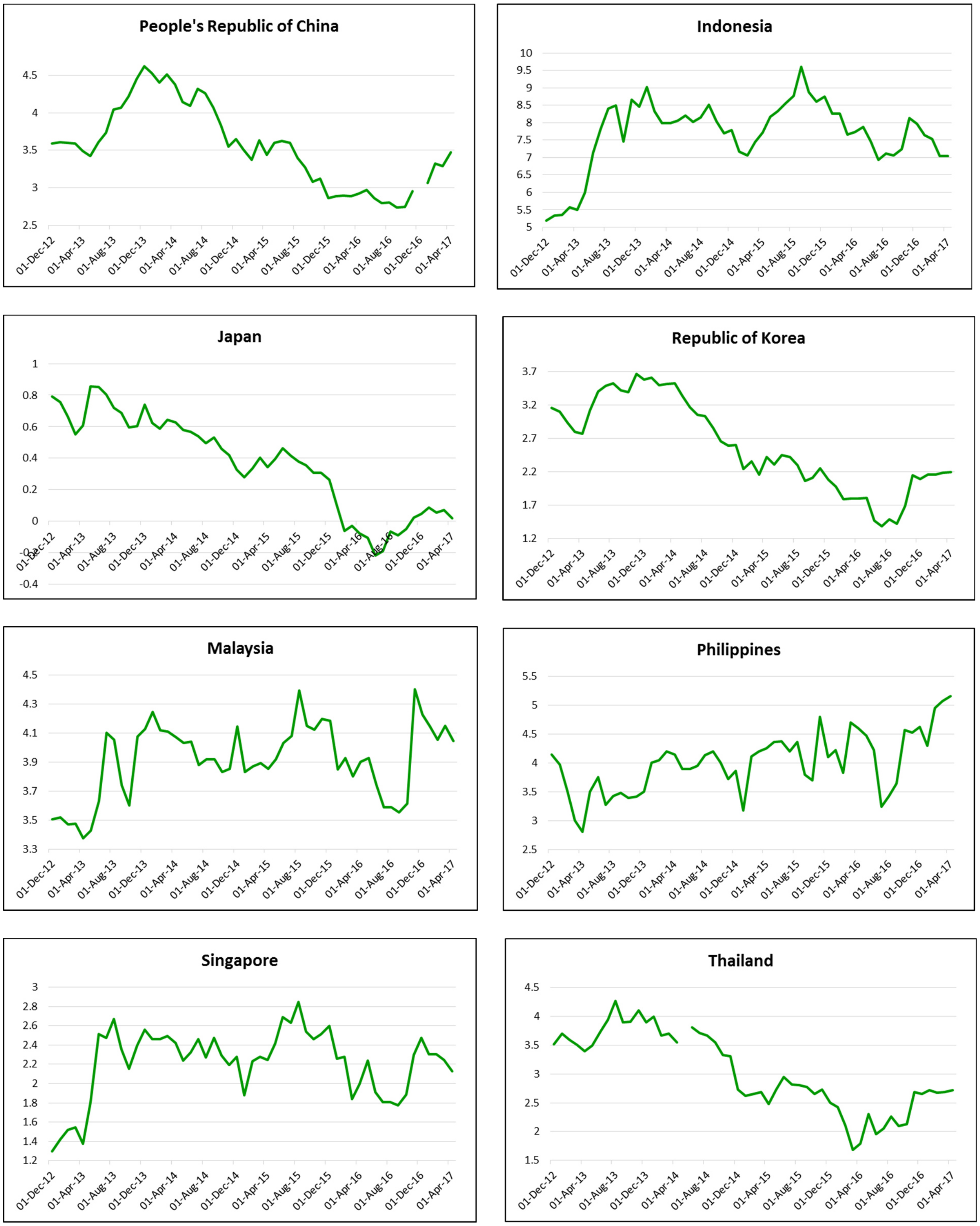
Sources: Directorate General of Budget Financing and Risk Management, Ministry of Finance; Financial Supervisory Service; Bank Negara Malaysia; and Thai Bond Market Association.

Source: *AsianBondsOnline*

Similarly, emerging markets assets were sold off heavily in May 2013 when the Federal Reserve signaled the tapering of its highly accommodative monetary policy. This was followed by sharp selloffs in debt, equity, and currency markets in emerging economies, including in emerging East Asia. Benchmark 10-year government bond yields rose across the region **(Figure 8)**. In all emerging East Asian economies except the Republic of Korea, equity markets dropped, including by 20% in Indonesia, while currencies fell between 2% and 18% **(Figure 9)**.

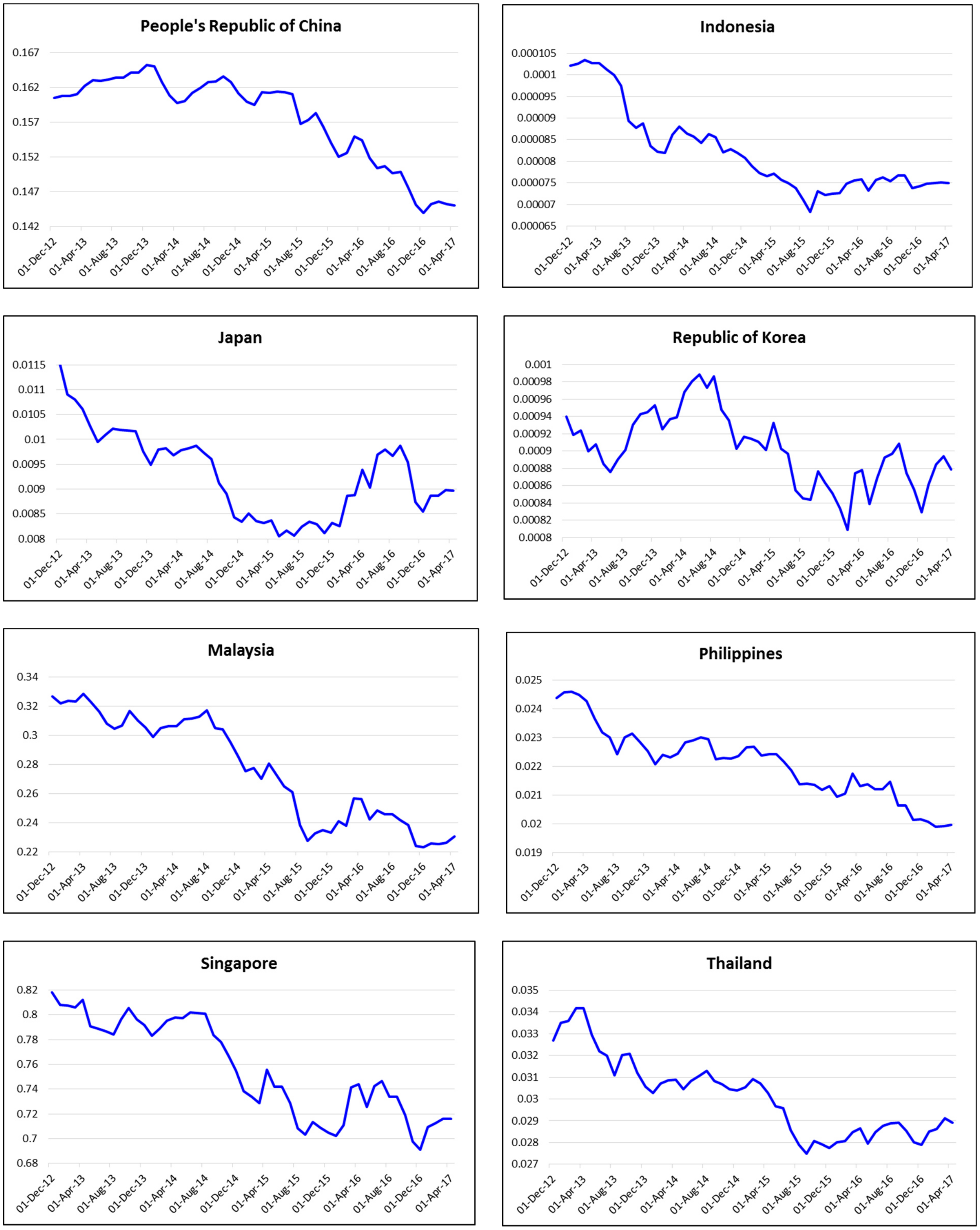
[19] Asian Development Bank. 2017. *Asia Bond Monitor March 2017*. Manila.

Figure 8: 10-Year Government Bond Yields, December 2012 to April 2017



Source: Bloomberg.

Figure 9: Exchange Rates—LCY–USD, December 2012 to April 2017



Source: Bloomberg.

V. Policy Considerations

Policy makers in ASEAN+3, like in other emerging markets, have long recognized the benefits of capital flows that bring investment and technology transfers, leading to productivity growth and aggregate income gains as well as the risks associated with the reversal of the capital. Surging inflows can prove destabilizing for an economy as they can fuel excessive credit growth, expand current account deficits, and drive exchange rate appreciation. A sudden stop in inflows, or even a reversal, can send these parameters quickly in the opposite direction as witnessed during the 1997/98 Asian financial crisis.[20]

In light of the cross-border spillovers of economic policies in advanced economies on financial conditions and credit growth in emerging market economies, including emerging East Asia, policy makers in the ASEAN+3 region have announced in the Joint Statement of the 20th ASEAN+3 Finance Ministers' and Central Bank Governors' Meeting on May 5, 2017 that they will continue to enhance the monitoring of capital flows and to strengthen the management of risks stemming from excessive capital flow volatility. They will also continue to closely monitor, and if necessary, address emerging risks, particularly those that are systemic, as well as the vulnerabilities in the financial system. [21]

In addition to measures to be undertaken over the medium-term as specified in the road map, ASEAN+3 could consider the following policies, both within and outside of the ABMI framework, to help reduce the impact of negative spillovers from advanced economies' policies.

First, as ASEAN+3 member countries are highly open economies, it is essential that policy makers continue to strengthen macroeconomic fundamentals, particularly by reducing current account and fiscal deficits, inflation, and short-term foreign debt. These factors are keys to sustainable growth and investor confidence as stronger fundamentals allow policy makers the fiscal space needed to reduce the impact of the reversal of capital flows on the economy.

Second, the region should continue accelerating efforts to further deepen the banking sector and capitals markets and strengthen prudential regulations and banking supervision to limit excessive risk-taking by domestic financial institutions. To develop, broaden, and diversify the domestic investor base, policy makers should pursue long-term policies to promote the growth of domestic nonbank financial institutions—such as insurance companies, pension plans, and mutual funds—that could provide a greater cushion during episodes of capital outflows. Once progress has been made in broadening the domestic investor base and strengthening macro-prudential oversight, policy makers in ASEAN+3 will be in a stronger position to gradually remove the regulatory barriers to cross-border bond transactions identified by the GoEs.

Third, ASEAN+3 member countries should step up efforts to further develop corporate debt markets and accelerate regional bond market integration to enable the corporate sector to raise long-term LCY-denominated debt at lower cost and in a currency that matches the corporate

[20] B. Carrasco, S. Gokarn, and H. Mukhopadhyay. 2014. *Managing Capital Flows-Issues in Selected Emerging Market Economies*. New Delhi: Oxford University Press.

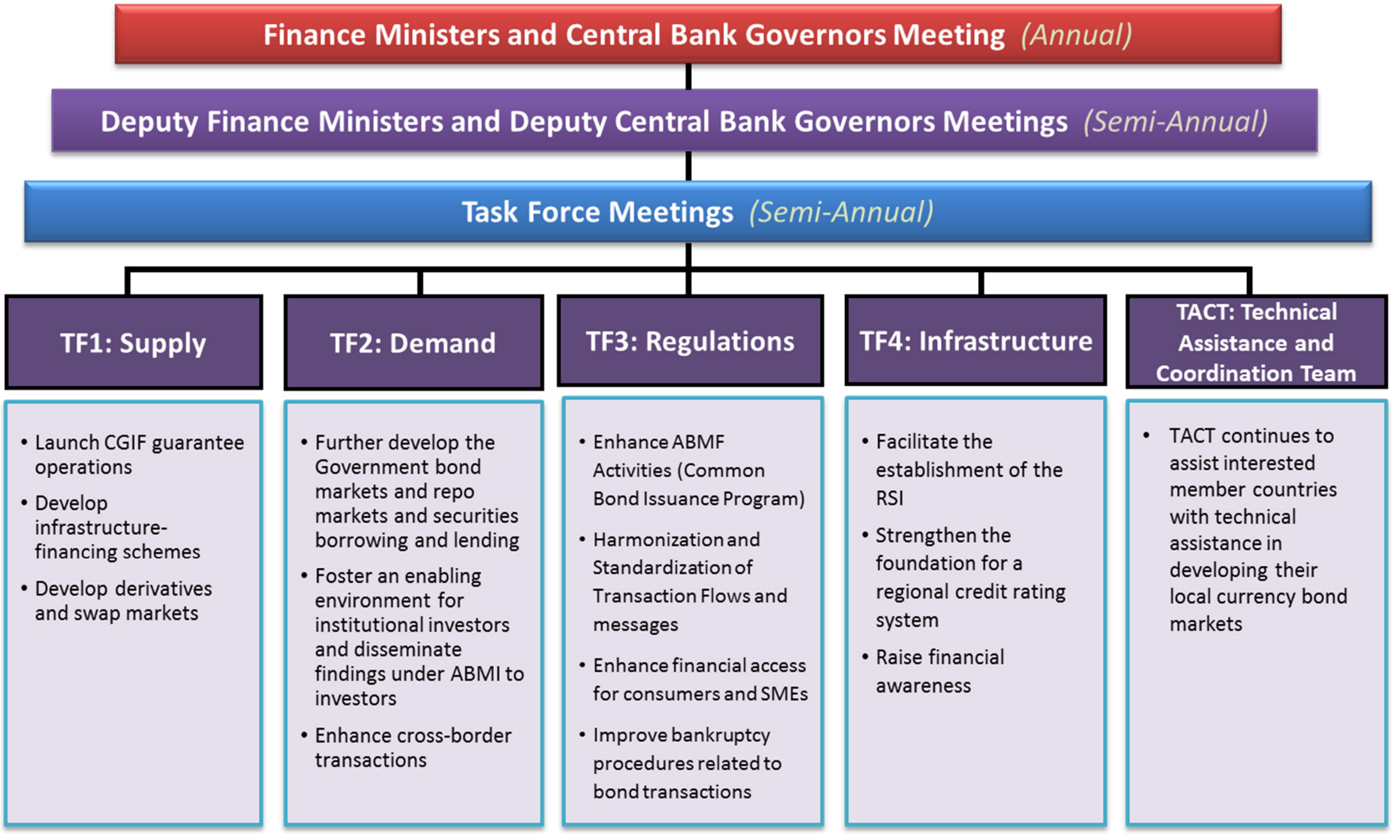
[21] ASEAN+3. 2017. The Joint Statement of the 20th ASEAN+3 Finance Ministers' and Central Bank Governors' Meeting. Yokohama. 5 May.

sector's financing needs. More developed and integrated LCY bond markets will provide a more reliable source of funding at a lower cost for the public and private sector investments necessary to sustain growth. It will also provide greater incentives for both the public and private sector to finance their investment needs in the domestic market instead of tapping foreign-currency-denominated debt markets. This would help reduce the region's dependency on foreign-currency-denominated debt and its vulnerability to external shocks. Cross-border corporate bond issuance would therefore support the region's growing intraregional investment and trade. Hedging instruments could be further developed to enable LCY bond investors to manage risks and make these bonds more attractive to investors.

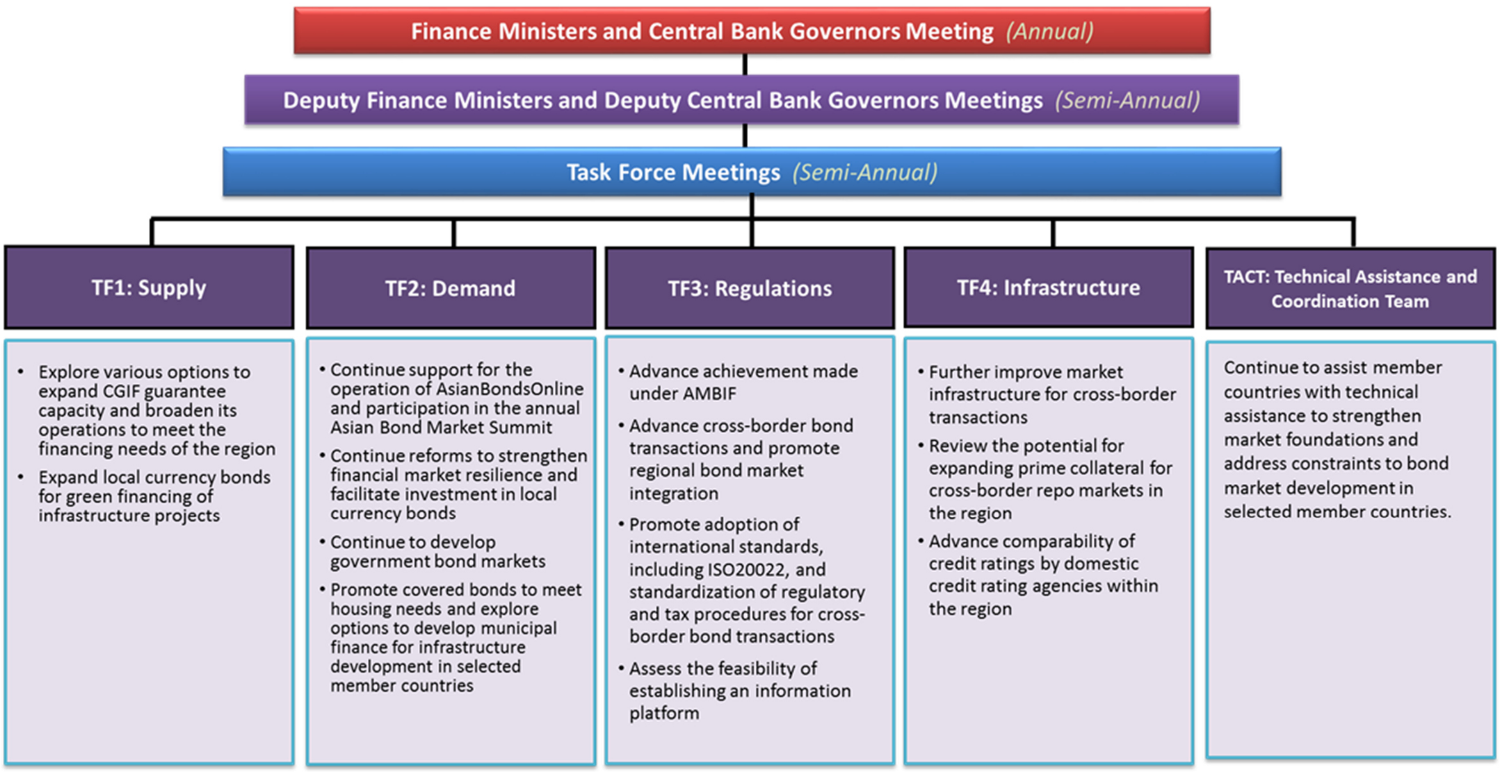
Fourth, in support of greater cross-border corporate bond issuance and addressing the long-term financing needs of the region, particularly for infrastructure development, policy makers could expand credit enhancements for LCY bonds. Credit enhancement is essential for bond issuance as the stand-alone ratings for issuers may be below A, which is typically sought by institutional investors in the region. While ASEAN+3 is likely to increase the guarantee operations of CGIF with capital injection and increased leverage ratio, its guarantee capacity combined with that of domestic guarantee facilities like those found in Indonesia, the Republic of Korea, and Malaysia is likely to remain significantly small compared to the long-term financing needs in the region. Expanding the capacities of domestic guarantee facilities to complement those of CGIF would facilitate greater LCY bond issuance in general and for infrastructure development particular, thereby helping to close the long-term financing gap for infrastructure development in the region.

Lastly, once cross-border bond issuance has been mainstreamed in emerging East Asia, policy makers should consider expanding bond issuance under AMBIF to firms in other parts of emerging Asia. Investors from outside of ASEAN+3 could be encouraged to invest in corporate bonds issued under AMBIF. A more diversified issuer and a broader investor base under AMBIF would expand and deepen the regional bond market and lower transaction costs, benefitting emerging East Asia as a whole. Finally, gradual capital account liberalization and the subsequent internationalization of regional currencies would promote more stable, long-term capital flows.

Appendix 1: Implementation Arrangement, 2008–2016



Appendix 2: Current Implementation Arrangements



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