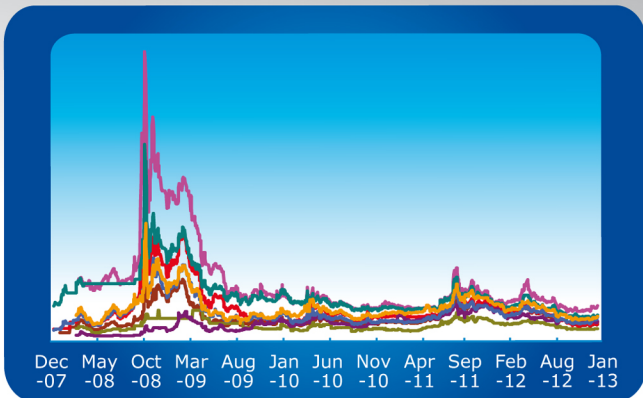


Broadening the Investor Base for Local Currency Bonds in ASEAN+2 Countries





Broadening the Investor Base for Local Currency Bonds in ASEAN+2 Countries

Asian Development Bank

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FOREWORD

The Asian Development Bank (ADB) has been working closely with 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 promote the development of local currency bond markets in the region through the Asian Bond Markets Initiative (ABMI). ABMI was launched in 2002 to help channel regional savings toward long-term investments within the region. ABMI was established with the goal of improving the resilience of the region's financial systems by helping reduce the double mismatches (maturity and currency) of companies' investment financing.

Local currency bond markets in the region have grown rapidly in recent decades in terms of size and diversity of issuers. Member countries of ASEAN+3 successfully issued government bonds to finance economic stimulus packages during the financial turmoil of 2008/09. ABMI has provided support to facilitate issuers' access to local currency bond markets and improve cross-border bond transactions and investments through the establishment of entities such as the Credit Guarantee and Investment Facility (CGIF) and ASEAN+3 Bond Market Forum (ABMF).*

The promotion of well-functioning local currency bond markets is now more important than ever as economies in the region confront volatile capital flows resulting from uncertainty in global financial markets. ABMI is likely to play an increasingly important role in reducing the negative impacts of volatile capital flows in the region.

This study was undertaken under ABMI and funded by the Government of Japan. It focuses on measures to expand the investor base for local currency bonds in ASEAN and the PRC and the Republic of Korea, with the goal of generating greater variety in investment objectives and a wider range of investment strategies. This will enhance market liquidity by creating new trading opportunities and will reduce market fluctuations by allowing bonds exhibiting different investment risks to be held by those most capable of bearing them. It is not only the size of the investor base that matters but also its diversity. An investor base can be large, however, if it is concentrated among a small number of institutions employing similar investment strategies, the result may be a multitude of "buy-and-hold" portfolios that ultimately undermine the efficiency and effectiveness of local bond markets.

The study was prepared by A. Michael Andrews, Robert Hannah, and Brent Sutton under the direction of A. Noy Siackhachanh, Senior Advisor in the Office of Regional Economic Integration (OREI) at ADB. Guidance and assistance were provided by Noritaka Akamatsu, Deputy Head, Lee Seung Min, Capital Market Specialist, and Richard D. Supangan, Senior Economics Officer, also at ADB. Research assistance and logistical support were provided by Yvonne C. Osonia, Elizabeth Andrews, Cher Canlas, and Jenny Saavedra.



Bindu N. Lohani
Vice-President (Knowledge Management and Sustainable Development)

* ASEAN+3 has also launched the Chiang Mai Initiative Multilateralisation (CMIM), a multilateral arrangement among ASEAN+3 member countries and the Hong Kong Monetary Authority. CMIM evolved from the Chiang Mai Initiative (CMI), the first regional currency swap arrangement that was launched by ASEAN+3 countries in May 2000. CMIM was designed to enhance the effectiveness of CMI as a regional liquidity support mechanism to (i) address balance of payment and short-term liquidity difficulties in the region, and (ii) supplement existing international arrangements.

ABBREVIATIONS

ABF	– Asian Bond Fund
ABMI	– ASEAN+3 Bond Markets Initiative
ABO	– AsianBondsOnline
ADB	– Asian Development Bank
ADBI	– HSBC Asian US Dollar Bond Index
ALBI	– HSBC Asian Local Bond Index
ASEAN	– Association of Southeast Asian Nations
ASEAN+2	– ASEAN, the People's Republic of China and the Republic of Korea
ASEAN+3	– ASEAN, the People's Republic of China, Japan and the Republic of Korea
ATM	– Automated Teller Machine
BIS	– Bank for International Settlements
BSF	– Bond Sinking Fund
BSP	– Bangko Sentral ng Pilipinas
CEMBI	– JP Morgan Corporate Emerging Markets Bond Index
CFA	– Chartered Financial Analyst
CGIF	– Credit Guarantee and Investment Facility
CPF	– Central Provident Fund (Singapore)
CPIS	– Coordinated Portfolio Investment Survey
DVP	– Delivery Versus Payment
EMCB	– BoA Merrill Lynch Emerging Markets Corporate Plus Index
EMD	– Emerging Market Debt
EMEAP	– Executives' Meeting of East-Asia Pacific Central Banks
EPF	– Employees' Provident Fund (Malaysia)
ETF	– Exchange-Traded Funds
FI	– Financial Institution
FX	– Foreign Exchange
GDP	– Gross Domestic Product
HSBC	– Hong Kong and Shanghai Bank Corporation
ILP	– Investment-Linked Insurance Product
IMF	– International Monetary Fund
INO	– Indonesia
IOSCO	– International Organisation of Securities Commission
JPM ELMI+	– JP Morgan Emerging Local Markets Index Plus
JPM EMBGI	– JP Morgan Emerging Market Bond Global Index

JPM GBI-EM	– JP Morgan Government Bond Index-Emerging Market Global Diversified Index
KWAP	– Kumpulan Wang Persaraan (The Retirement Fund, Malaysia)
Lao PDR	– Lao People’s Democratic Republic
LVTs	– Large Value Transfer System
MAL	– Malaysia
MAS	– Monetary Authority of Singapore
OTC	– Over-the-counter
PAIF	– Pan Asia Bond Index Fund
PBOC	– People’s Bank of China
PHI	– Philippines
PRC	– People’s Republic of China
QFII	– Qualified Foreign Institutional Investor
Repo	– Repurchase Agreement
S&P	– Standard and Poors
SBT	– Specific Business Tax
SWF	– Sovereign Wealth Fund
UITFS	– Unit Investment Trust Funds
URR	– Unremunerated Reserve Requirement

I. INTRODUCTION

1. The Asian financial crisis (1997–98) left a lasting impression on policymakers, who are determined that the conditions leading to the economic collapse do not happen again. The crisis showed that overdependence on credit from a banking system that relies heavily on short-term foreign capital can cause large macroeconomic dislocations when foreign capital flows suddenly reverse direction. Establishing deep and liquid local currency bond markets as an alternative to bank financing is one way to lessen the likelihood of repeating the conditions that led to the Asian financial crisis (Box 1). Since the late 1990s, Asian governments have made concerted efforts to promote the development of their local currency bond markets. These initiatives take many forms but each is designed to achieve one of four key policy objectives:
 - (i) promoting the issuance of local currency bonds (supply-side);
 - (ii) facilitating the demand for local currency bonds (demand-side);
 - (iii) improving the regulatory base; and
 - (iv) improving the related infrastructure for bond markets.
2. There has been a great deal of commonality in the types of initiatives that countries have pursued, although the scope and pace of their efforts have varied tremendously. In part this reflects the stage of development of local currency bond markets at the start of the process. However, differences are also due to the degree of consensus that exists between industry and government officials about the required initiatives, and the effectiveness of governments in marshaling the resources necessary to bring about these changes.
3. Regional initiatives have played an important role in promoting the development of local currency bond markets. The Association of Southeast Asian Nations, the People's Republic of China (PRC), Japan, and the Republic of Korea (ASEAN+3), Bond Markets Initiative (ABMI) was launched in 2002 and has since funded a number of projects to encourage a broader range of issuers and instruments, increase demand, identify and remove barriers to

Box 1 Benefits of Local Currency Bond Markets

Local currency bond markets offer several benefits. First, they eliminate the double mismatch problem by aligning the currency and term of credit with the currency and term of credit providers. Second, local currency bond markets create competition for bank lending by providing large corporations and infrastructure projects an alternative source of funding should they find the terms and conditions of bank loans unattractive. Third, bond markets are better able to provide long-term capital (terms of over 10 years) than banks. Fourth, local currency bonds provide alternative investment options **that offer higher yields and/or a better match with investment needs of** individuals and institutions. Fifth, bond markets convey important information about general credit conditions, as well as information on the credit worthiness of specific institutions, that is not readily available from the banking system. While the 2008–2009 global financial crisis has cast on doubt Alan Greenspan's contention that local currency bond markets can serve as a "spare tire" by continuing to provide credit when the banking system is under stress, a well-functioning local bond market lessens the impact of bank liquidity problems (loans can be called while bonds generally cannot) and conveys other significant benefits.

cross-border investment, and improve how markets function.¹ Funding for these initiatives has been provided largely by the Government of Japan with technical support from the Asian Development Bank (ADB).

4. The development of local currency bond markets has also been supported by the Executives' Meeting of East-Asia Pacific (EMEAP) central banks, which in 2005 launched the Asian Bond Fund (ABF) 2 with an initial contribution of about \$2 billion. The centerpiece of this initiative is the Pan Asia Bond Index Fund (PAIF) and eight country-specific index funds that invest in local currency government and quasi-government debt securities. In addition to providing a low-cost investment option for investors, these funds were launched to help identify impediments to bond market development and to act as a catalyst for regulatory reforms and improvements to market infrastructure.

A. Expanding the Investor Base

5. This report focuses on measures to expand the investor base for local currency bonds. It is not only the *size* of the investor base that matters but also its *diversity*. An investor base can be large, but if it is concentrated in a small number of institutions employing similar investment strategies, the result may be “buy-and-hold” portfolios that ultimately undermine the efficiency and effectiveness of local bond markets.
6. The goal of expanding the investor base is to encourage the development of investors that have different investment objectives and employ a range of investment strategies. This will enhance market liquidity by creating trading opportunities and will reduce market fluctuations by allowing bonds exhibiting different investment risks to be held by those most capable of bearing them.
7. The investor base can be broadly grouped into individual (or retail) investors, domestic institutional investors, and foreign institutional investors.² Institutional investors (both foreign and domestic) include banks, pension plans, insurance companies, mutual funds and sovereign wealth funds, among others. Asset management firms are also important institutional investors, though they manage funds on behalf of other investors, both individuals and institutions.
8. Domestic institutional investors are by far the largest investors in local currency bond markets, typically accounting for 70%–90% of all outstanding bonds. The level of participation of any particular class of investor in local currency bond markets is affected most directly by their size, investment objectives, and applicable regulations. The size of the domestic institutional investor base is determined by the demand for savings, investment, and protection products. Demand, in turn, is affected by a number of factors including overall per capita income, income distribution, economic growth, demographics, and social welfare policies. An examination of these issues is outside the scope of this report.

¹ A comprehensive overview of these initiatives is found in A. Noy Siackhachanh. 2012. Strengthening the Financial System and Mobilizing Savings to Support More Balanced Growth in ASEAN+3. ADB Working Paper Series on Regional Economic Integration. No. 94. Manila: Asian Development Bank.

² Individuals seldom make direct investments in bonds outside their home country. Any exposure they may have to foreign bonds is typically done indirectly via mutual funds, insurance contracts, and pension holdings.

B. Major Findings

9. Considerable progress has been made over the past decade in developing local currency bond markets in ASEAN, the PRC, and the Republic of Korea (ASEAN+2) economies. The overall size, number of issuers and number of investors have increased over the same period. In addition, the physical infrastructure supporting these markets, such as clearing, settlement and custody, as well as the reliability and tenor of the government yield curve, has made tremendous advances.
10. Government officials and industry participants are generally aware of the additional steps that need to be taken to further develop local currency bond markets, although there are sometimes differences regarding priorities and specific measures to be taken. Where consensus exists, the needed initiatives have generally been implemented on a timely basis.
11. Asia is blessed with a high savings rate that has resulted in significant pools of capital that are available to invest in local currency bond markets. A lack of supply and other market impediments, rather than insufficient demand, are the larger obstacles to local currency bond market development.
12. There are no major regulatory or structural impediments to individual, domestic and foreign institutional investors participating in most local currency bond markets. While there are regulations and other barriers affecting the ability of *some* investors to participate in *some* markets, there are no systemic barriers to investment in the region.
13. Institutional investors in ASEAN economies have modest exposure to the local currency bonds of neighboring countries. In some cases this is due to regulations that limit foreign investment. In other cases, it is due to non-regulatory investment policies that favor domestic investments. For the most part, however, the lack of cross-border investment by ASEAN institutional investors is due to a lack of interest. This may be changing, as increasing concern about the creditworthiness of government bonds in developed economies (notably Europe) is prompting interest in Asian local currency bonds among Asian institutional investors.
14. The domestic institutional investor base is concentrated, generally comprising a small number of institutions with similar investment objectives and strategies. In several countries examined in this study, this has resulted in a sizable portion of local currency bonds held in “buy-and-hold” portfolios. This, in turn, has had an adverse effect on market liquidity by creating a “Catch-22” situation: Large investors do not trade because of a lack of liquidity, and market liquidity is constrained by a lack of trading by the market’s largest investors.
15. Investor knowledge of investment characteristics of fixed-income instruments is poor in some ASEAN countries. In particular, fixed-income investments (individual bonds and bond mutual funds) are often viewed as “stable investments,” whose value does not fluctuate. This incorrect view has had both positive and negative impacts on the development of local bond markets. On the positive side, the perception of fixed-income securities as “stable investments” has made bonds and bond funds popular among individual investors seeking alternatives to low-yielding bank deposits. However, this view has impeded the development of long-tenor and non-investment grade bonds, whose prices are more sensitive to changes in interest rates and perceptions of credit worthiness, respectively.
16. Liquidity in most local currency bond markets has been hampered by limited market-making activities and small to non-existent repurchase (repo) markets.

17. The clearing and settlement systems of major local currency bond markets operate well, although incremental improvements to these systems could continue to benefit market participants.
18. Foreign institutional investors dislike withholding taxes, foreign exchange administrative procedures, and capital controls. Government interventions to control foreign capital flows reduce the attractiveness of these markets to global investors and, in the case of barriers on capital outflows, undermine confidence in the country as a desirable investment destination.
19. Considerable expertise on measures to promote the development of local currency bond markets resides within the region. Most of the countries with large bond markets examined in this study have at least one area where they excelled in fostering the development of their local currency bond markets, and other countries could benefit from their knowledge and experience.

C. Report Organization

20. The balance of this report, which provides a regional overview and synthesis of the ASEAN+2 experience with bond market development, is organized as follows:
 - a. **Chapter II** provides an overview of the current state of local currency bond markets in ASEAN+2 economies in terms of size, growth rates, liquidity, and development of the government yield curve. It concludes with a brief discussion of remaining impediments to bond market development.
 - b. **Chapter III** examines the domestic institutional investor base in ASEAN+2 economies, with particular attention on banks, pension funds, insurance companies, and mutual funds. Recommendations to expand the domestic institutional investor base are provided.
 - c. **Chapter IV** examines the foreign institutional investor base in ASEAN+2 economies. The role of global asset-management firms and the importance of market indices in defining investor mandates are explored in detail. The use of capital controls is also examined. The chapter contains recommendations on measures that governments could take to expand the foreign institutional investor base.
 - d. **Chapter V** examines the individual investor, mutual fund, and exchange-trade fund (ETF) sectors in ASEAN+2 economies, with particular focus on their investment in local currency bonds. Recommendations are provided for promotion of the mutual fund sector.
 - e. **Chapter VI** summarizes the cross-cutting recommendations drawn from the individual country experience.
21. This report focuses on the largest ASEAN local currency bond markets: Indonesia, Malaysia, the Philippines, Singapore, and Thailand. It also includes selected comparisons and examples from the experiences of the “+ 2” countries—the PRC and the Republic of Korea—and where appropriate, from the ASEAN countries with less developed bond markets—Brunei Darussalam, Cambodia, the Lao Peoples’ Democratic Republic (Lao PDR), Myanmar, and Viet Nam.

II. ASEAN LOCAL CURRENCY BOND MARKETS—CURRENT STATE

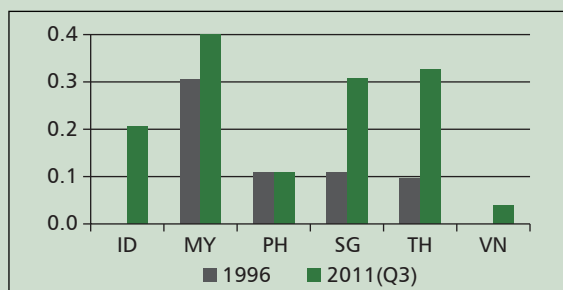
22. ASEAN local currency bond markets have developed significantly over the last 15 years in Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam (Chart 1), with the region collectively increasing its share of global local-currency bonds outstanding. This reflects a generally higher rate of economic growth coupled with concerted efforts to develop both government and corporate bond markets. Bond market growth in Indonesia has been largely driven by government debt issuance, while in Malaysia and Singapore, and to a somewhat lesser extent Thailand, the increase is attributable to growth in the corporate market as well as in government debt (Chart 2). One of the key drivers in Malaysia has been its emergence as a global center for Islamic finance. Bond markets are at an early stage of development in Brunei Darussalam, Cambodia, the Lao PDR, and Myanmar.
23. Corporate issues exceed government debt outstanding, accounting for about 60% of the \$1.3 trillion outstanding in 2012 in the Republic of Korea. About one-quarter of the rapidly growing Chinese market is comprised of corporate debt. The Chinese bond market has expanded from just over \$200 billion outstanding in 2001 to over \$3.8 trillion, or about 4.6% of the global total local-currency bonds outstanding, in 2012.

A. Bond Market Development

1. Financial Markets and Institutions

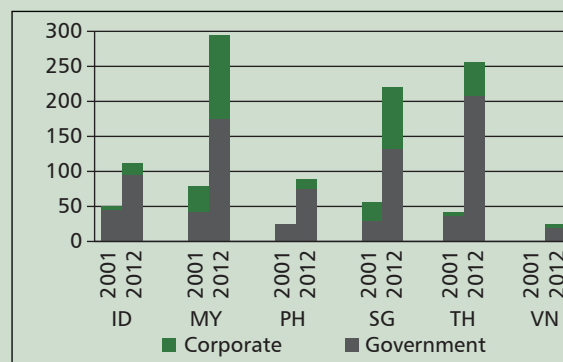
24. All ASEAN countries have initiated a range of policy actions to develop their bond markets. While specific approaches vary by country, there are significant commonalities in the objectives and actions of ASEAN countries experiencing the greatest growth in their bond

Chart 1 Local Currency Bonds Outstanding
(%, Global Total)



ID = Indonesia; MY = Malaysia; PH = Philippines;
SG = Singapore; TH = Thailand; VN = Viet Nam.
Sources: AsianBondsOnline; <http://asianbondsonline.adb.org/>
accessed multiple dates December 2011–January 2013 Bank
for International Settlements *BIS Quarterly Review*.

Chart 2 Local Currency Bonds Outstanding
(\$ billion)



ID = Indonesia; MY = Malaysia; PH = Philippines;
SG = Singapore; TH = Thailand; VN = Viet Nam.
Source: AsianBondsOnline <http://asianbondsonline.adb.org/>
accessed multiple dates December 2011–January 2013.

markets—Malaysia, Singapore, and Thailand. Malaysia and Thailand initiated comprehensive capital markets “masterplans” in 2001 and 2002, respectively. The Thai initiative was followed by a second masterplan in 2006 and a third in 2009, with Malaysia launching a follow-on masterplan in 2011. Since 1998 a series of initiatives led by the Monetary Authority of Singapore (MAS) has addressed identified market deficiencies and promoted broad market development.

25. While on the surface the reform programs in the three countries vary significantly—actions guided by a comprehensive masterplan or a coordinated sequence of policy initiatives—there are important similarities in the approach and objectives that provide useful guidance for policymakers.
 - a. Government and industry leaders need to share a common objective of developing the bond market, and work closely together to ensure that the necessary foundation is put in place.
 - b. A modern legal framework including company and insolvency laws, and a disclosure-based regime for securities regulation and market conduct oversight which meets the International Organization of Securities Commissions (IOSCO) Principles and Objectives of Securities Regulation, is an essential foundation for bond market development.
 - c. A government debt program including regularly scheduled benchmark-sized issues over a range of tenors and reopening of less liquid issues is necessary to develop the yield curve, one of the preconditions for an active corporate bond market. Issue consolidation, establishing an effective primary dealer system, and developing a repo market are also key to developing an effective government yield curve.
 - d. The infrastructure to provide delivery versus payment (DVP) in the settlement of securities transactions—securities depositories with immobilized or dematerialized certificates, custodians, and a large value transfer system (LVTS) capable of providing final irrevocable payment—is necessary for efficiency and risk-minimization by domestic market participants, and to attract foreign investors to local currency bond markets.
 - e. Tax policy matters such as the impact of withholding and transactions taxes (stamp tax) have to be considered in the context of bond market development, and the potential benefits of targeted tax incentives such as exemptions for specific instruments or classes of investors need to be weighed against the forgone revenue and potential market distortion.
26. The experience with bond market development in ASEAN countries also provides guidance with respect to sequencing of reforms. The initial emphasis needs to be on the legal foundation, regulatory and supervisory framework, and the infrastructure to support issuance and trading. Thus, the early years of successful reform programs typically result in new or substantially revised legislation and regulations, strengthening of supervisory capacity, and putting securities depositories, clearing systems and LVTS in place. Once these foundation elements are established, interventions to specifically promote bond market development can be considered. A range of these are discussed below.

B. Government Bond Markets

27. The government debt market provides an important foundation for the establishment and growth of the corporate bond market. A yield curve, which is derived from government

Table 1 Outstanding Government Securities, Total and By Tenor
(% of GDP, end 2011)

Market	Total, share of GDP, %	Share of GDP by tenor (%)			
		1–3 year	3–5 year	5–10 year	> 10 year
Indonesia	11.5	1.9	1.6	3.3	4.8
Malaysia	56.5	16.4	12.4	22.4	5.3
Philippines	30.3	5.5	5.3	7.7	11.8
Singapore	42.4	13.6	7.8	11.5	9.6
Thailand	54.6	23.4	10.4	12.8	8.0
Viet Nam	12.7	6.4	3.5	2.4	0.4

Note: GDP = gross domestic product.

Source: AsianBondsOnline. <http://asianbondsonline.adb.org/> accessed multiple dates December 2011–January 2013.

bond transactions, is an essential element for price discovery in the market. Without it, issuers and investors would have difficulty negotiating and executing transactions. Not coincidentally, ASEAN countries with the most developed corporate bond markets also have well-functioning government debt markets.

28. Governments have taken active roles in developing institutions and issuing securities in a way that contributes to bond market development. First, products must be available to be traded and priced. The larger ASEAN countries have enough distribution of government debt along the maturity groupings to form the basis for yield curve development, except perhaps Viet Nam, which has little beyond 10 years maturity (Table 1). Some countries have a considerable amount in the short end, reflecting central bank bills used for monetary purposes. Absolute size is also important.

1. Liquidity

29. Debt managers have at their disposal a number of tools to improve the liquidity of the government debt market. These include the establishment and publication of a preannounced schedule of issuance, the consolidation of debt into several large liquid benchmark bond issues at key points along the yield curve, performing buyback programs, reopening existing bond issues, facilitating repo and securities lending, promoting exchange-traded and over-the-counter (OTC) interest rate derivatives as hedging tools, and the establishment of a primary dealer group for government securities.
30. Liquidity is important for bond market development, and that is why most primary dealer systems require that dealers make markets in specific bond issues. Liquidity lowers the cost of portfolio management operations and, over the longer term, results in better returns to investors. Narrower spreads and better market depth as indicated by the accepted transaction size are associated with larger and more liquid markets, with Indonesia and Viet Nam showing significantly larger spreads (Table 2). Probably the most important determinant of liquidity is the absolute size (within limits) of a bond issue. Most countries have begun or are well advanced in the process of consolidating debt. Reopening of existing issues, buyback programs, and exchange programs have been used to consolidate debt.

Table 2 Liquidity Indicators in Selected Government Bond Markets
(\$ million)

	PRC	INO	KOR	MAL	PHI	SIN	THA	VIE
On-the-run: ^a								
Typical bid-offer spread	4.0	32.9	0.7	3.3	5.3	3.8	3.3	33.5
Accepted transaction size	15.3	2.0	8.9	3.7	3.7	18.3	1.7	3.0
On-the-run: ^b	12.7	12.7	6.4	12.7	3.5	12.7	2.4	12.7
Typical bid-offer spread	5.9	61.9	1.1	5.9	19.4	3.5	6.8	34.0
Accepted transaction size	11.8	1.1	9.8	2.6	1.0	11.7	1.2	3.0

PRC = People's Republic of China; INO = Indonesia; KOR = Republic of Korea; MAL = Malaysia; PHI = Philippines; SIN = Singapore; THA = Thailand; VIE = Viet Nam.

Notes: Bid-offer spread in basis points. Results are from a survey with limited number of respondents and should be considered as indicative only.

^a "On-the-run" refers to the most recent issue of bonds of a particular type and tenor.

^b "Off-the-run" are bonds from prior issues.

Source: AsianBondsOnline. 2012. *2011 Bond Market Liquidity Survey*.

asianbondsonline.adb.org/surveys/liquidity_survey_2011/abo_2011_bond_market_liquidity_survey.pdf

2. Primary Dealers

31. Most governments in ASEAN+2 countries have taken concerted steps to establish primary dealers for government securities, and to focus much of their market development actions around this group of institutions. Designation of such a group, providing it with privileges, and requiring the performance of certain obligations, help to develop the market for government securities and, in a broader context, the bond market as a whole.³ Primary dealers are chosen based on their financial soundness and integrity, financial market expertise, and track record in the government bond market. An overview of the primary dealer system in the larger ASEAN+2 countries is provided below.
32. **People's Republic of China.** There are three groups of dealers in the PRC: about 50 dealers are designated by the People's Bank of China (PBOC) for central bank bill operations; an expanded group of about 60 is chosen by the Ministry of Finance to be dealers in government securities; and 23 are designated by the PBOC as market makers. Market makers are required to post two-way prices on four benchmark bonds; however, some market participants indicate that the market-making function is not regarded as important. The OTC bond-trading system allows major investors to deal directly with each other without the intervention of brokers. Repo and interest rate swaps to support dealer trading and hedging exist, but there are no exchange traded futures. Re-introduction of the latter is being considered. Other large issuers such as policy banks and some state enterprises also have dealer groups.
33. **Indonesia.** In Indonesia, a framework for primary dealership and debt management is in place; issuance schedules are announced, primary dealers have been designated, and auction bidding performance is good. However, secondary market liquidity continues to be

³ Privileges may include access to auctions, bond buyback programs, and other government debt operations; access to financing for securities inventory; access to extra allotments of securities at a non-competitive rate for clients; access to specific bond issues through repo with the debt manager or central bank, or through special temporary securities lending arrangements; consultations with debt managers and financial policy officials; and the prestige of the designation. Obligations may include: a requirement to participate at auctions, buybacks and other operations, and to win a minimum amount per period; make secondary markets in a subset of outstanding bonds; achieve minimum volumes of trading and turnover; develop the investor base; achieve distribution objectives; and, provide market intelligence and advice to debt managers and policymakers.

a problem. Bid-offer spreads are among the widest surveyed in the group of ASEAN countries. There are 18 primary dealers, of which 14 are banks and four are securities dealers. There are four benchmark bonds along the curve, and debt management policy is in the process of consolidating the large number of outstanding issues. Although there is a repo market, the legal underpinnings are unclear in the wake of two unfavorable court cases against the holders of collateral. Interest rate swaps are infrequent and bond futures do not exist. Consequently, primary dealers do not have good tools to hedge their trading positions. Knowledge and training are also an issue.

34. **Republic of Korea.** There are 20 primary dealers, 12 securities firms and eight banks in the Republic of Korea, and the system appears to run smoothly. Liquidity is among the best in ASEAN+2, with the bid-offer spread less than one basis point on benchmark bonds for reasonable size trades. Financing from the Bank of Korea is provided for auction winnings, likely a factor of importance to securities houses, but less so for banks. Primary dealers are evaluated on a point system and are demoted for underperformance. In 2009, a technical modification to change from a uniform price auction to a hybrid auction resulted in a considerable improvement in auction performance. In derivatives, the three-year exchange-traded bond futures contract is quite active and used for hedging dealer positions while the 10-year bond futures is moderately active. Interest rate swaps are also used by some firms. Repo and securities lending are well developed and provide dealers with tools to square their trading positions.
35. **Malaysia.** There are 12 primary dealers and six specialist Islamic-security primary dealers. Both regular and Islamic securities are issued. Malaysia is regarded as a global market leader in the issuance of Islamic securities. Islamic security dealers are required to bid only on Islamic issues. A benefit primary dealers enjoy in Malaysia is that they may deduct holdings of government bonds from their (bank-related) reserve requirement at the central bank. Since all primary dealers are banks, this is a distinct benefit to all. An auction schedule is published, switch auctions are conducted for consolidation purposes, and benchmark bonds in the three-, five-, and 10-year areas are continuously issued. While interest rate swaps are written, there are no derivatives for Islamic securities.
36. **Philippines.** Thirty-eight Government Securities Eligible Dealers have been designated to participate in auctions. However, they do not have formal market-making responsibilities, and market participants indicated that only about half of these dealers are active in government securities markets. The debt manager also occasionally issues securities through a tap method to auction bidders and OTC to government entities, based on a formula related to market yields. There have been six debt consolidation programs, which have proven successful. Taxation is an issue in the Philippines. A 20 % withholding tax is applicable to some investors, segmenting the market between taxable and exempt investors. A documentary stamp tax discourages the use of repo. As a result, in spite of steady issuance, liquidity is moderate to poor. The long term portion of the market is somewhat more active, a finding consistent with the relatively large portion of Philippine government debt in the over-10-years segment of the market.
37. **Singapore.** The government has undertaken regular issuance of local currency securities to develop the market despite generally running fiscal surpluses. There are 13 primary dealers and 20 secondary dealers. Primary dealers are required to participate in auctions, to make two-way secondary markets, and to provide information to the debt manager. Privileges include access to auctions, an enhanced repo financing facility, and higher non-competitive tender limits. For the repo market, MAS will temporarily create any outstanding government security needed by the counterparty, a feature designed to enhance trading liquidity.

Officials expressed satisfaction with the primary dealer system's operation. Liquidity is reasonable, with relatively more activity at the short end of the curve.

38. **Thailand.** Nine primary dealers are designated for government debt issuance in Thailand (a different group is selected for bilateral repo transactions in support of monetary policy with the Bank of Thailand). Dealers must act as market makers, bid at auctions, and provide information to the debt manager. A debt consolidation program is in the planning stages. Liquidity is characterized as moderate to poor. The view of market participants is that the primary dealer system can be improved. The Public Debt Management Office is planning to revamp the system, which will involve more precisely defined obligations and improved privileges.
39. **Viet Nam.** While commitments to develop the government bond market in a more systematic way and to establish a system of primary dealers have been reaffirmed several times, limited progress has been made to date. A bond issuance schedule is released with quarterly updates; two-, three-, five-, and 10-year tenors are planned. Issuance is by auction and by underwriting. A consolidation program to allow investors to exchange less liquid bonds for larger issues has been undertaken.

C. Corporate Bond Market

40. Significant policy initiatives have been undertaken to develop corporate bond markets in all ASEAN countries. Those that have been most successful have first put in place the essential legal and regulatory framework, supported by the necessary clearing, payment and settlement infrastructure; custodians and depositories; and mechanisms to capture and disseminate bond trading information. Once in place, these basics can support focused efforts on increasing the supply of bonds, increasing the liquidity of the bond market, and diversifying the investor base.

1. The Importance of Contractual Savings

41. The legal and regulatory framework for private retirement savings, life insurance and annuities is an important foundation for bond market development. Growth in corporate bond markets is correlated with the development of contractual savings such as pensions and life insurance (Chart 3). Compared to banks, insurance companies and private pensions tend to hold much larger portions of their investment portfolios in corporate bonds relative to government bonds, likely in the pursuit of higher yield. In a virtuous circle, the demand for bonds helps to stimulate issuer interest, which in turn can support the development of secondary markets.

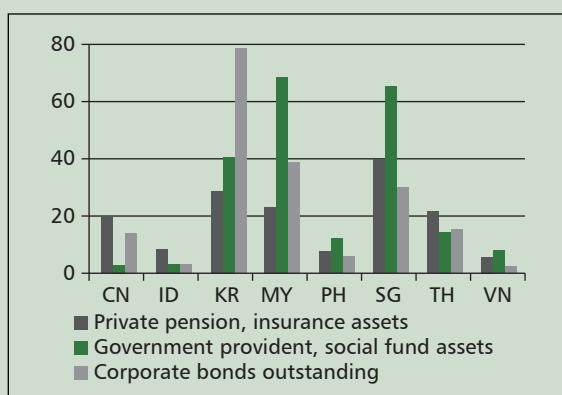
2. Catalyzing the Bond Market

42. Market participants in ASEAN countries almost invariably commented on the inadequate supply of corporate bonds, with many institutional investors indicating they would hold more corporate bonds if available. In ASEAN countries where all the foundational elements for the bond market are in place, a number of policy initiatives have been launched specifically to increase the supply of bonds.
43. Larger numbers of issuers are required for broader and deeper bond markets. The 30 largest issuers account for almost 100% of Viet Nam's corporate bond market, while in Malaysia and Singapore they account for 55 and 50%, respectively (Chart 4). Initiatives to catalyze

the bond market have included government-related entities taking a leadership role in corporate bond issuance. For example, seven of the 10 largest Singaporean corporate issuers are statutory boards and government-linked companies. Cagamas, the largest Malaysian corporate issuer, was established as a joint venture between government and the financial services industry. The Thai government has an ownership stake in some of the largest domestic issuers, but the bonds are not government guaranteed and thus viewed as pure corporate issues.

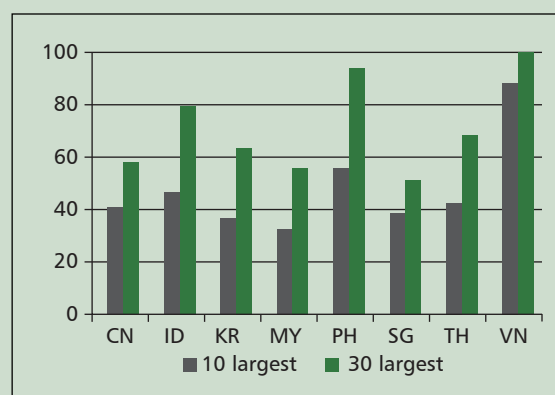
44. Government can also play a leadership role through the use of bond financing to support important policy objectives such as infrastructure development and increasing the stock of housing. Government can require a domestic financing component for large infrastructure projects. Utility companies, both publicly and privately owned, are among the larger issuers throughout ASEAN countries. For instance, Cagamas in Malaysia has a dual mandate of providing housing finance and fostering bond market development. The Land Transportation Authority and Housing and Development Board in Singapore are large corporate issuers.
45. Bringing smaller- and/or lower-rated corporate issuers to the market has proven challenging in all markets. Policy initiatives include the Singapore Small and Medium Enterprise (SME) Access Loan Scheme, which pools SME loans into securities offerings, and the Credit Guarantee and Investment Facility (CGIF) established by ASEAN+3 under ABMI. The CGIF provides potential issuers with credit enhancement to enable them to issue local currency bonds in the domestic market or cross-border within the region. Danajamin Nasional in Malaysia is a credit guarantor with a mandate to provide credit enhancement for issues with acceptable risks that would otherwise not be completed. A program for SME collective notes with credit guarantee in the PRC is an initiative of the National Association of Financial Market Institutional Investors, while the Shanghai Stock Exchange has begun to list high-yield bonds.

Chart 3 Corporate Bonds and Contractual Savings
(\$ billion, end-2011 or most recent)



CN = People's Republic of China; ID = Indonesia; KR = Republic of Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Viet Nam.
Sources: AsianBondsOnline;
<http://asianbondsonline.adb.org/> accessed multiple dates December 2011–January 2013 ADB Consultant estimates.

Chart 4 Largest Corporate Bond Issuers
(% total corporate bonds outstanding, 2011)



CN = People's Republic of China; ID = Indonesia; KR = Republic of Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Viet Nam.
Sources: AsianBondsOnline;
<http://asianbondsonline.adb.org/> accessed multiple dates December 2011–January 2013 ADB Consultant estimates.

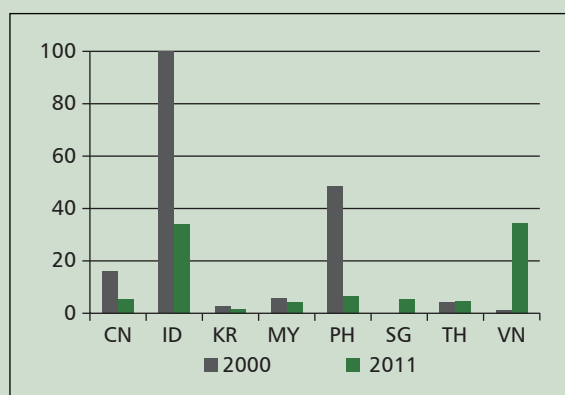
3. Liquidity and Secondary Trading

46. Market participants in all ASEAN countries express some level of concern over low levels of secondary market trading, particularly in corporate bonds. The lack of liquidity is reflected in the bid-ask spread—the difference between the buy and sell prices quoted by market makers. The bid-ask spread for government bonds has generally declined over time (Chart 5), while the bid-ask spread for corporate bonds tends to be higher and is less reliably available.
47. One key policy initiative is to ensure that trading data is captured and disseminated. Most bond trading is OTC, but a requirement to report to a central system operated by a stock exchange, central bank or bond market association can ensure that trade data is available to all market participants. The structure is less important than the fact that data is captured and disseminated. Such structures include the Malaysia Bond Info Hub, which is operated by the central bank; the Korea Financial Investment Association, the Thai Bond Market Association, and the Philippine Dealing and Exchange Corporation, which are all self-regulatory organizations and operators of bond information centers; and the Viet Nam Bond Market Association, a non-profit organization of market participants that provides bond price and trading data. MAS, in conjunction with the Singapore financial industry, is establishing a price discovery platform requiring market participants to provide end-of-day pricing on a universe of corporate bonds.
48. The role of market makers—participants prepared to continuously provide bid/offer quotes—is central to increasing liquidity and secondary market trading. For government bonds, use of a primary dealer system can be effective, since failure to meet the requirements to support secondary trading could lead to the loss of the privileges of a primary dealer. For corporate bonds in some countries such as Viet Nam, there are voluntary commitments by bond-market association members to act as market makers. Underwriters often commit to issuers to make markets in their securities, though in practice there are few mechanisms to ensure that these commitments are kept.
49. The ability of bond traders to take a short position—to sell a security they do not own—is crucial to market-making. Two key policy initiatives to support market-making are to provide the legal foundation for securities lending—a market maker needs to be able to borrow the security it has just sold—and to establish a global master repurchase agreement to facilitate repo transactions. Establishment of a corporate debt-securities lending platform is a 2012 initiative of MAS in partnership with the financial industry in Singapore which will promote market making. MAS will buy a portion of new corporate issues which it will make available for securities lending. This reduces the risk of market makers being squeezed on short positions, as they will be able to borrow securities from MAS even if not available elsewhere.
50. Market participants in many ASEAN markets cited the absence or lack of depth in the markets for hedging instruments. Initiatives to address this include establishing the regulatory foundation for derivatives trading and encouraging the development of bond and interest rate futures. Since 2001, a five-year government bond-futures contract has been listed on the Singapore Exchange. Bursa Malaysia entered into a strategic alliance in 2012 with CME Group, a leading international provider of futures and options products and trading. This is expected to broaden the range of products available to domestic investors and make Malaysian products more readily available to international investors.

D. The Investor Base

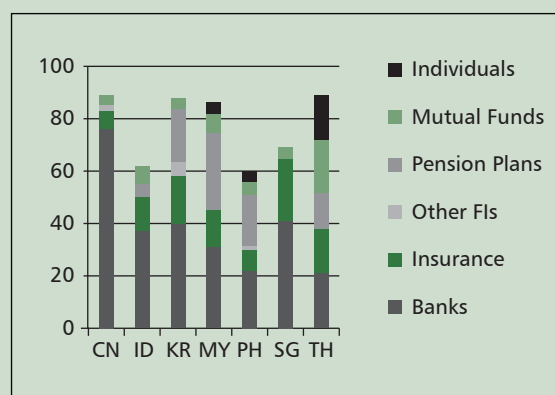
51. There are significant differences in the investor base for local currency bonds across ASEAN countries, the PRC, and the Republic of Korea (Chart 6). The differences reflect the history of financial and capital market development in each country as well as specific considerations such as tax treatment. The differences in the investor base across countries highlight a number of important policy considerations in bond market development.
52. The catalytic role played by government provident funds has been one of the keys to bond market development in Malaysia. The young provident and social insurance funds in Cambodia, the Lao PDR, Myanmar, and Viet Nam all have the potential to become significant domestic institutional investors. It is important, however, to mitigate the potential adverse impact of having dominant investors in the market, such as a tendency to engage in buy-and-hold strategies which inhibit the development of secondary market trading. Options that have been successfully used are to permit fund members to place a portion of their savings in authorized externally managed funds, and to use external managers for portions of the provident fund portfolio. Both of these approaches support the growth of the fund management sector as another important bond market participant, and by diversifying the management of the provident funds help mitigate market dominance.
53. Growth of the contractual savings sector is another important part of mitigating the potential dominance of government provident funds. In addition, the importance of pensions and life insurance in many of the better-developed bond markets such as Malaysia, Singapore, and Thailand highlights the symbiotic relationship between the growth of contractual savings and the bond market. Requiring pre-funding of pensions and other longer term obligations can create important domestic pools of capital, as the legal foundation for life insurance and annuities can.

Chart 5 Government Bond Bid-Ask Spread (basis points)



CN = People's Republic of China; ID = Indonesia; KR = Republic of Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Viet Nam.
Source: AsianBondsOnline. <http://asianbondsonline.adb.org/> accessed multiple dates December 2011–January 2013

Chart 6 Domestic Investors in Local Currency Bonds (% total outstanding)



CN = People's Republic of China; ID = Indonesia; KR = Republic of Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand.
Sources: <http://asianbondsonline.adb.org/> accessed multiple dates December 2011–January 2013 AsianBondsOnline; ADB Consultants' estimates; Bank for International Settlements *BIS Quarterly Review*.

54. Banks are important investors in bonds in all markets. However, meeting the “spare tire” objective of providing an alternative to bank financing is best achieved through diversifying the investor base. As noted elsewhere in this report, development of domestic non-bank investors such as pensions, life insurance and mutual funds is a long term undertaking which is linked to broader economic development and, in particular, the growth of the middle class.
55. Thailand is unique in the relatively large percentage of corporate debt held by individual investors. Many Thai corporates have cultivated relationships with individual investors, benefiting from a stable source of finance independent of domestic or foreign institutional investors. Corporate issuers in other countries might be guided by this example.

E. Addressing Remaining Impediments

56. There are few remaining major impediments to bond market development in the larger ASEAN markets. For ASEAN markets at an earlier stage of development, completing an appropriate legal and regulatory framework is the essential foundational step. Once this is in place, policymakers can draw on experiences elsewhere to identify additional policy measures to promote the bond market.
57. Recommendations to address specific impediments to broadening the domestic and foreign investor base are provided in the subsequent chapters of this report. The remainder of this chapter identifies policy actions targeted towards the foundation for bond market development and cross-cutting policy issues. The discussion is limited to issues most relevant to broadening the investor base for local currency bonds. Comprehensive review of all preconditions and impediments to bond market development is beyond the scope of this report, and has been addressed elsewhere.⁴
58. **Issuer and investor education.** There is a need for education on capital markets across ASEAN countries. Financial literacy and investor education is a key element of many successful development programs. Market participants observed that in many cases there is a lack of basic understanding of bonds as an investment, and among potential issuers, of bonds as a financing instrument. In this regard, ASEAN countries will continue to benefit from regional initiatives including the ABMI, the creation of the Asian Bond Fund Exchange-Traded Funds (ETFs), the AsianBondsOnline (ABO) portal, and publications such as the ASEAN+3 Bond Market Guide.
59. **Building expertise and human capital.** Even in some of the better-developed ASEAN markets, participants commented on the lack of expertise on both the buy and sell sides of the business. This contributes to a high turnover cycle, with relatively small numbers of experienced fixed-income professionals moving frequently among institutional players. The shallow pool of financial professionals also creates challenges in fulfilling requirements for independent expertise of boards of director. Securities commissions face particular challenges as they often hire new graduates who leave for much higher private sector compensation once they have acquired a few years experience. These problems are compounded in less developed markets, where policy advisors, regulators and supervisors, and market participants may all have very limited capital markets experience.

⁴ For a summary of these initiatives, see Siackhachanh 2012.

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60. Over the medium to longer term, the base of domestic capital-markets professionals will grow as more graduates pursue professional qualifications and gain experience in financial firms. In the short term, countries can attract expertise by ensuring there are uncomplicated procedures to hire expatriates and that visa, work permit and taxation regimes do not impede enticing international expertise to domestic capital markets. Entry of foreign firms can contribute to local market development by bringing expertise, systems, and training opportunities. Introduction of licensing and requirements for continuing education for capital-markets professionals can encourage individuals to further their own qualifications, and for their employers to support these endeavors. Requirements for international designations, such as Chartered Financial Analyst (CFA), can be incorporated into local standard setting for investment professionals.
61. Regional examples of concerted capacity building efforts include Malaysian initiatives to develop a center of excellence in Islamic finance. This has included international collaboration on Shariah research and product development, public funding support, and collaboration with the industry for training and professional development to increase the supply of qualified Shariah advisors. Singapore has also made considerable efforts to attract qualified investment professionals and to encourage local residents to pursue financial qualifications.
62. **Introduce disclosure-based regulatory regimes.** Some ASEAN countries retain a merit-based regulatory regime, with the supervisory authority approving bond (and other securities) issuance based on a review of the issuer's financial performance, credit worthiness or other factors. This can inhibit market access for lower-rated issuers, and has the effect of substituting the judgment of the supervisor for the investment decision-making process of market participants. It can also result in longer periods for regulatory approval. One of the concerns of key market participants is that regulatory regimes should provide short and predictable periods to bring new issues to market.
63. Well-developed bond markets usually have a disclosure-based regime, where the approval of the supervisory authority is based largely on a determination of whether the issuer has complied with the disclosure requirements. This approach ensures that all necessary information for an informed investment decision is available to investors, permits lower-rated issues to access the market given sufficient investor appetite, and appropriately puts the onus on investors to establish their own risk-tolerances and assess whether new issues fall within these tolerances.
64. **Improve the performance of government securities dealers.** Dealers in government securities are a key institutional link between the issuer and the investor. While they in turn are dependent upon debt management policy and investor demand, their performance affects market structure and efficiency. In some countries, a more disciplined approach to selecting and setting out obligations and privileges is advisable. The number of dealers selected should be small enough to be manageable and to significantly reward the best performers, but not so small as to encourage collusion. Primary dealers not meeting their obligations should lose their status.
65. **Develop market-making and risk-management tools.** For market making, dealers need access to securities to deliver on a sale, and financing to fund a purchase. Securities can be accessed from a securities lender or through reverse repo. Some debt managers will create securities for lending to primary dealers, which will alleviate a squeeze. For financing, dealers can use call money, execute repos, or obtain access to temporary central bank finance. These transaction-intensive activities require a secure, robust and sophisticated securities depository. The existence of pledge facilities with the custodian or tri-party repo arrangements will encourage non-bank participants as well as banks and dealers to

undertake repo transactions. For risk management, dealers need to hedge the market and the currency risk arising from their position. This is most efficiently done with derivatives—interest rate or currency swaps—and exchange traded futures. Where all of these market making and risk management instruments are available, as in the Republic of Korea, liquidity of markets is significantly enhanced.

66. **Tax policy implications for bond market development.** The costs and benefits of various tax policies need to be weighed, with informed choices required to balance between often conflicting policy objectives. For example, deductibility of pension contributions and insurance premiums, and providing exemption from income and capital gains tax for savings held in retirement or other tax-advantaged plans, can increase savings rates and spur the development of contractual savings and mutual funds. However, the benefits from higher savings rates and individuals providing for their own retirement need to be balanced against the cost of foregone tax revenue. Similarly, the promotional effect of preferential tax treatment for specific types of investment such as *Sukuks* or classes of investor such as pension funds have to be considered in the context of potential distortion of the market and foregone tax revenue.
67. **Carefully considering the impact of withholding and transactions (stamp) taxes on bond market development.** While these types of taxes offer the benefits of relatively simple administration and revenue-raising efficiency from the perspective of the revenue authority, these have a dampening effect on the bond market. While often considered with respect to foreign investors (and addressed in this context in Chapter IV of this report), withholding taxes on interest distort the market more generally by raising the cost of bond financing relative to loans and inhibit financial market activity. While there may be exemptions, the process for reclaiming withholding tax is usually cumbersome and lengthy. As transactions become more sophisticated (cross-border repo transactions, for example), direct taxes on financial instruments add an extra layer of complexity and compliance. A tax on income from mutual funds in Indonesia will likely inhibit the development of the fund industry. Stamp taxes have effectively suppressed the repo market in the Philippines.

III. DOMESTIC INSTITUTIONAL INVESTORS

68. Domestic institutional investors are banks, pension plans, insurance companies, and asset management firms, plus a variety of other types of institutions. They are the largest investors in local currency bond markets. This chapter first provides an overview of domestic institutional investors before discussing how institutional investors construct their portfolios and reviewing the relative market share of each investor type in selected local currency bond markets. Key regulations that affect the investment activities of institutional investors are then addressed, followed by recommendations to expand the domestic institutional investor base and some concluding comments.

A. Institutional Investors: Who Are They?

69. There are many types of institutional investors. The largest are typically banks, pension plans and life insurance companies, although there can be a variety of other institutions that are important investors in local currency bonds as well. An important distinction is between those institutions investing their own funds and those managing assets on behalf of others.

70. Local *banks* are typically the largest investors in local bond markets. Banks are complex investors because they hold bonds (especially government securities) in connection with multiple business activities. Loans typically offer higher yields than bonds but are illiquid investments. Thus, prudence dictates that banks hold a portion of their assets in liquid securities. Banks may also invest in government bonds due to a perceived lack of acceptable quality borrowers. Bonds are also held to manage interest rate exposure, as collateral for repo transactions or as inventory for market-making activities, to take views on the future direction of interest rates and to meet regulatory reserve and liquidity requirements.⁵ Banks invest most of their fixed-income portfolio in shorter-term government securities denominated in the currency of the majority of their deposits and other funding sources.

71. *Life insurance companies* provide financial protection and investment options for individuals. The life protection and life annuity segments of the business involve long-term liabilities, which make long-tenor corporate and government bonds a good matching asset. The long-term nature of these obligations also means that life insurance companies do not have the same near-term liquidity needs as banks. Life insurance companies also offer a variety of investment products. The investment portfolios supporting these products are typically segregated from the portfolios supporting protection products. These funds are managed in accordance with specified risk profiles, which clients select to match their investment needs and risk tolerance.

72. *General insurance companies* provide financial protection for property, such as cars, homes and businesses. These obligations are generally short term in nature (i.e., majority premiums collected each year are paid out in claims that same year) so general insurance companies typically invest majority of their portfolios in shorter-term debt securities. Because of the high turnover between premiums received and claims paid, the investment portfolios of general insurance companies are typically much smaller than for life insurance companies.

⁵ Banks may also hold bonds on behalf of their clients in brokerage accounts, mutual funds and private banking operations, although these are considered "off-balance sheet" holdings because banks do not own these assets.

73. *National pension plans* provide retirement income for all formally employed citizens. Most offer a defined benefit at retirement (i.e., the payment of a specific sum each month to members), which creates long-term obligations for the fund. These obligations are similar to those faced by life insurance companies, and long-tenor bonds provide a good match for these liabilities. However, many national pension plans offering a defined benefit operate on a “pay-as-you-go” basis, which means that current obligations are paid out of current tax revenues and there is no investment fund to support future obligations. Even with only partial funding, the national pension plan is the largest investor in some countries whereas in other countries there is no investment fund at all.
74. Some national pension plans operate as defined contribution plans. The benefit provided at retirement is a lump-sum payment whose value depends on past contribution rates and investment returns. (In Asia, these are often called “provident funds.”) Some defined contribution plans limit members to a single investment option whereas other plans allow members to select where their funds are invested, typically using mutual funds. Because these plans have no specific obligation (the only promise to members is what they contribute and earn prior to retirement), there is less agreement among investment professionals about the need for these plans to hold long-tenor bonds (a debate that will not be taken up here). As a result, national pension funds offering defined contribution benefits may not be significant investors in long-term bonds. Four of the seven national pension plans in major ASEAN+2 countries are defined contribution plans (Table 3).
75. *Public sector pension plans* provide retirement income for government workers. Most (though not all) offer a defined benefit at retirement and thus are often significant holders of long-term bonds to match their long-term liabilities. Unlike national pension plans, however, most public sector pension plans operate on a funded basis (at least to some extent). Pre-funding, along with large memberships, mean that public sector pension plans are often among the largest institutional investors in a country.
76. *Private sector pension plans* provide retirement income to private sector workers. A single-employer plan provides benefits to employees of that company while multiple-employer plans offer benefits to a specific type of worker, typically members of an occupational union. In the past, private sector pension plans most often operated as defined benefits plans, but in the last 20 years there has been a significant shift to defined contribution plans. Private sector pension plans are more numerous but typically have smaller membership bases than public sector pension plans. Private sector plans offering a defined benefit tend to invest more in long-tenor bonds than those operating on a defined contribution basis.

Table 3 National Pension Plans in Selected ASEAN+2 Countries

Country	Defined Contribution Plan	Defined Benefit Plan
PRC	✓	
Indonesia	✓	
Korea, Rep. of		✓
Malaysia	✓	
Philippines		✓
Singapore	✓	
Thailand		✓

PRC = People's Republic of China.

Source: Organisation for Economic Co-operation and Development. 2009. Pensions at a Glance. Special Edition: Asia/Pacific. Paris: OECD.

Table 4 Sovereign Wealth Funds Located in ASEAN+2 Countries, 2010

Country	Fund Name	Assets (\$ billion)
PRC	SAFE Investment Company	568.0
PRC	China Investment Corporation	482.0
Singapore	Government of Singapore Investment Corporation	248.0
Singapore	Tamasek	158.0
PRC	National Social Security Fund	135.0
Korea, Rep. of	Korea Investment Corporation	43.0
Malaysia	Khazanah Nasional	37.0
Brunei Darussalam	Brunei Investment Agency	30.0
PRC	China–Africa Development Fund	5.0
Viet Nam	State Capital Investment Corporation	0.5
Indonesia	Government Investment Unit	0.3

PRC = People's Republic of China.

Source: Organisation for Economic Co-operation and Development. 2009. Pensions at a Glance. Special Edition: Asia/Pacific. Paris: OECD.

77. *Sovereign wealth funds* (SWFs) are state-owned investment pools. The assets in these funds are usually derived from surplus foreign earnings (often linked to the sale of resources or privatizations) and are managed for the long-term benefit of a country's citizens. Investment portfolios are generally global in scope and, in many cases, few or none of the assets of the SWF are invested in the home country. A list of SWF located in ASEAN+2 countries is provided in Table 4.
78. *Central banks* are significant bond investors in connection with open market operation activities and management of official reserves. Open market operations involve buying and selling local currency bonds to implement monetary policy. Official reserves are a country's holdings of foreign currency, which are held in special drawing rights, gold, and short-term foreign government securities.
79. *Asset management firms* are specialized investment entities that manage funds on behalf of other investors, both individuals and institutions. These assets may be managed on a pooled basis (i.e., mutual funds and ETFs) or on a segregated basis where the investment portfolio is managed for a single client. The assets of individuals, small institutions and defined contribution plans are generally managed on a pooled basis while large investors, such as defined benefit pension plans, insurance companies and sovereign wealth funds, generally have their assets managed on a segregated basis. Both mutual funds and segregated portfolios are managed in accordance with investment policies that specify how the assets are to be managed. The investment policy is set by the asset management firm in the case of a mutual fund and by the client (i.e., the beneficial owner of the assets) in the case of segregated portfolios.⁶ Most of the funds managed by asset management firms are in unleveraged, long-only portfolios and their performance is evaluated against a market index called a benchmark.
80. *Hedge funds* are a specialized type of asset management firm. Three key differentiating factors between hedge funds and traditional asset management firms are: (i) the use of

⁶ Technically, for mutual funds, setting policy is usually done by the fund's board of directors or trustees, who are generally appointed by the fund asset management firm when the fund is established.

leverage to bolster returns; (ii) the use of short positions to manage risk and/or as a call on the future direction of the market; and (iii) performance is evaluated on an absolute basis rather than relative to a benchmark. A fourth difference is that hedge fund managers are paid on the basis of performance whereas traditional asset management firms are paid on the basis of assets under management. Hedge funds are opaque and limited information on their investment activities is available. Investors in these funds grant the portfolio manager broad investing powers in return for the prospect of earning high positive returns regardless of the market environment (at least in theory!).

81. *Mutual funds* (more generally known as collective investment schemes) pool the funds of multiple investors into a single investment vehicle that are managed on a professional basis by asset management firms (see above). Mutual funds are established with a specific investment objective and often focus on a single asset class (like bonds or equities) within a particular country or region. Investors may be institutions (including financial institutions) or individuals. Mutual funds are often used as investment vehicles for defined contribution plans.
82. In-house investment professionals and/or external asset management firms manage the portfolios of institutional investors. In the case of very large institutional investors (i.e., those with assets exceeding \$50 billion–\$100 billion), most (but seldom all) assets are managed by internal investment professionals. External asset management firms will be hired to manage highly specialized or new asset classes, which typically account for only a small percentage of the total assets of the investor. Exposures to alternative investments, such as hedge funds, private equity and real estate, are usually managed by external asset management companies. As a new asset class, emerging market debt exposures are also likely to be managed externally. External asset management firms typically manage most (and often even all) of the assets of small institutional investors (i.e., those with assets under management of less than \$1 billion–\$3 billion). When using external asset management firms, institutional investors typically hire a separate company for each mandate (i.e., asset class), which is known as a specialty manager structure. For a given amount of assets, pension plans are more likely to rely on external investment management than insurance companies or banks.

B. The Portfolio Construction Process

83. Several factors affect the construction of an investment portfolio. One of the most important is the specificity and time-horizon of the obligations that the investment portfolio exists to support. Prudence demands that, all other things being equal, short-term obligations be matched with short-term assets, and that long-term obligations be matched with long-term assets. Another consideration is regulation. Institutional investors face differing regulatory prescriptions and proscriptions on their investment activities, although differences among countries in their regulation of investment activities for a given type of institutional investor can be as great as differences across institutional investors in the same country. Investment rules may be highly prescriptive, embodying a set of detailed rules that specify what an investor may or may not hold (including minimum and maximum exposures), or they may be highly flexible by merely stating that investment portfolios should be constructed and managed in a prudent manner. The investment portfolios of institutional investors that are financial intermediaries, such as banks and insurance companies, are also influenced by capital adequacy rules. Taxes can also influence the portfolio construction process. Finally, the risk preferences of those charged with overseeing the fund have a role to play as well.

84. Most pension plans, banks, insurance companies and sovereign wealth funds, particularly those in developed economies, invest according to the prudent-person rule, a behavior-oriented standard that gives these institutions considerable flexibility in their investment activities.⁷ In practice, this means that they use asset allocation and/or asset-liability models to establish a *model* portfolio.⁸ The process starts by defining the minimum risk portfolio, which is typically a portfolio of government bonds that matches the investment characteristics of the investor's obligations.
85. An asset class other than government bonds, such as equities, corporate bonds, commodities or real estate, will be included in a portfolio only to the extent that it adds to the expected return and/or reduces the expected risk of the investor's *total* portfolio. An additional requirement for inclusion is that those with accountability for overseeing the fund (i.e., trustees, investment committees) should have some knowledge of the asset's investment and risk characteristics. Insurance companies are more likely to face quantitative restrictions on their investments than other institutional investors but, subject to these restrictions, engage in a similar process to construct their portfolios.
86. The portfolio construction process requires the use of a market index (or benchmark) to model the expected return and risk characteristics of an asset class being considered for inclusion in a portfolio.⁹ An index is a group of securities that track the performance of a market. The constituent components are selected based on a variety of eligibility criteria (usually size and liquidity) and are weighted according to a prescribed formula (often market capitalization). To avoid excessive concentration, indices may limit the maximum weight of any one issue or issuer. There are many providers of indices and often there are multiple indices available for the same asset class.
87. Institutional investors in emerging economies tend to follow the same portfolio construction process, though the use of the prudent-person approach is not as widespread as in developed economies. Where detailed investment rules exist, the resulting portfolios tend to have a higher weighting to government securities due to prohibitions or limits on riskier investments. This is because local government bonds are considered to be the "risk-free" asset, and prescriptive investment rules are designed to limit the amount of risk that financial institutions can take. Instances of highly prescriptive investment rules are more the exception than the rule among the more advanced ASEAN economies.

C. Domestic Institutional Investors in Local Currency Bonds

88. The major investors (and their market share) in local currency bonds of selected ASEAN+2 economies are listed in Table 5. Domestic institutional investors generally held between 70%–80% of all outstanding local currency bonds in each country at the end of 2011. Banks are typically the largest investor category. This is not surprising since banks are the dominant financial institutions in all countries. However, other institutional investors typically held a

⁷ The prudent-person rule has no standard definition and its meaning has evolved over time in response to new investment theories and practices. The definition and its application also vary among jurisdictions. Broadly speaking, the prudent-person rule standard can be defined as: "a duty to act prudently and with due diligence with respect to the management" of a fund; "a duty of loyalty" to the beneficial owners of the assets; and the "principle of diversification, which requires that an...investment portfolio be suitably diversified and that unwarranted risks be avoided" (Galer 2002, 42).

⁸ A model portfolio is also known as a target portfolio or a benchmark portfolio. This portfolio, included in a fund's investment policy statement, lists the types of investments that may be held and a target percentage of the total portfolio for each asset class. Actual allocations may differ due to active management decisions and/or movements in the market.

⁹ An index can also be used as a benchmark to assess the performance of actively managed investment portfolios and as target portfolio for passively managed index funds and exchange-traded funds (ETFs).

Table 5 Investor Profile of Local Currency Bonds, December 2011

	PRC ^a	Indonesia ^b	Korea, Rep. of ^c	Malaysia ^d	Philippines ^e	Singapore ^f	Thailand ^g
Market	Gov't	Gov't	Gov't	Total	Gov't	Gov't	Total
Size (local, billion)	CNY12,931	IDR723,610	KRW 314,899	MYR730	PHP2,864	SGD231	THB7,327
\$1 equals	CNY6.294	IDR9,070	KRW1,156	MYR3.06	PHP43.78	SGD1.30	THB31.83
Size (\$, billion)	\$2,054	\$80	\$272	\$238	\$65	\$178	\$230
Banks	75%	36%	44%	30%	21%	40%	20%
Insurance	7%	13%	20%	14%	8%	24%	17%
Other FI's	2%	n.a.	6%	0%	1%	n.a.	n.a.
Pension Plans	n.a.	5%	23%	30%	20%	0%	14%
Mutual Funds	4%	7%	5%	7%	5%	4%	20%
Individuals	0%	n.a.	n.a.	4%	4%	n.a.	17%
Non-residents	n.a.	31%	n.a.	15%	10%	16%	6%
Other	12%	9%	2%	0%	31%	16%	6%

FI = financial institutions; PRC = People's Republic of China.

Notes:

^a "Banks" include commercial banks and credit cooperative banks. "Other financial institutions (FI's)" include non-bank FI's, securities companies and exchanges. "Other" is primarily Special Members, which include the People's Bank of China, the Ministry of Finance, and policy banks.

^b "Other" includes securities dealers, Bank of Indonesia, and Sharia Banks.

^c Data are for 2010. "Other FI's" are securities dealers. "Other" is primarily government entities. Non-residents' share of Korea Treasury Bond holdings is 15% but is included in the categories above.

^d "Banks" include commercial and Islamic banks. "Pension plans" include other government entities. "Individuals" include holdings by non-financial corporations.

^e "Banks" exclude Unit Investment Trust Funds (UITFs) and mutual funds. "Other FI's" are investment houses. "Pension Plans" include other tax-exempt institutions. "Mutual Funds" include UITF's and are estimates. Foreign investors are an estimate. "Individuals" are individual and institutional holdings in brokerage accounts. "Other" is primarily the Bond Sinking Fund and the Bangko Sentral ng Pilipinas. Figures are as of 31 March 2012.

^f The Central Provident Fund is invested 100% in non-marketable Special Government Bonds. "Mutual Funds" include unit trusts and investment-linked products. "Other" includes other financial institutions, individuals, Government Investment Corporation, Tamasek, Monetary Authority of Singapore, and segregated portfolios managed by asset management forms.

^g "Pension Plans" include only Social Security Fund and Government Provident Fund. "Mutual Funds" include provident funds.

Sources: AsianBondsOnline; Indonesia Bond Market Directory; People's Bank of China; China Banking Regulatory Commission; China Insurance Regulatory Commission; Bank of Korea; Financial Hub Korea; Bank Negara Malaysia; Securities Commission (Malaysia); Cagamas; Bureau of the Treasury; Monetary Authority of Singapore; Thai Bond Market Association; and authors' estimates.

higher percentage of their total assets in local currency bonds (Table 6). This is also not surprising given that most bank assets are non-marketable *loans* whereas most assets of insurance companies, pension plans and mutual funds are in marketable *investments*.¹⁰

89. While there is a high degree of commonality in the domestic institutional investor base among these economies, Tables 5 and 6 do highlight a few anomalies worth noting:

¹⁰ There are two exceptions to this general statement. In less advanced economies, bank deposits may make up a sizable portion of the portfolio due to a lack of investable securities. In the case of pension plans and insurance companies, mortgages and real estate may also be a sizable holding in the investment portfolio.

Table 6 Share of Total Assets Invested in Local Currency Bonds
(\$ billions)

	PRC	Indonesia	Korea, Rep. of ^a	Malaysia	Philippines	Singapore	Thailand
Banks							
Total assets	14,391	405	1,834	560	168	661	408
Bonds (local currency)	1,538	29.1	120	71.4	19.4	71.7	46.0
% in bonds	10.7%	7.2%	6.6%	12.8%	11.5%	10.8%	11.3%
Insurance							
Total assets	749.4	46.5	345	61.5	13.4	98.1	68.5
Bonds (local currency)	143.8	10.3	161	33.3	5.2	42.7	38.2
% in bonds	19.1%	22.2%	46.8%	54.1%	38.8%	43.5%	55.8%
Pension Plans							
Total assets	521.9	14.4	300	169.5	24.2	159.5	44.1
Bonds (local currency)	n.a.	3.8	202	71.4	12.8	0.0 ^b	32.9
% in bonds	n.a.	26.4%	67.2%	42.1%	52.9%	0.0%	74.6%
Mutual Funds							
Total assets	347.6	18.7	291	73.1	5.7	44.9	87.7
Bonds (local currency)	n.a.	3.8	202	16.7	3.0	6.4	46.2
% in bonds	22.5%	27.8%	31.7%	22.8%	52.4%	14.3%	52.7%

PRC = People's Republic of China.

Notes:

^a For Korea, all data is 2010 national sources, except bank total assets, which is 2011. Pension plans include only the National Pension Service.

^b The Central Provident Fund (Singapore) is invested 100% in non-marketable Special Government Bonds.

Sources: AsianBondsOnline; Indonesia Bond Market Directory; People's Bank of China; China Banking Regulatory Commission; China Insurance Regulatory Commission; Bank of Korea; Financial Hub Korea; Bank Negara Malaysia; Securities Commission (Malaysia); Cagamas; Bureau of the Treasury; Monetary Authority of Singapore; Thai Bond Market Association; and authors' estimates.

- 1) Banks are very large participants in the PRC's local currency bond market. The PRC's banks have a very large asset base, both in absolute and relative terms, almost 10 times greater than the combined assets of insurance companies, pension plans and mutual fund companies. Large state-owned banks have been central in its economic development in the PRC.
- 2) "Other" is a significant investor in Philippine local currency bonds. The Bureau of the Treasury operates the Bond Sinking Fund (BSF) to ensure payment of interest and principal on government securities. On 31 March 2012, the BSF held about \$12 billion of Philippine government securities. The Bangko Sentral ng Pilipinas (BSP) is also included in this category and held just over \$5 billion at the end of March 2012.
- 3) Insurance companies in Singapore and Thailand are relatively large investors in local currency bonds. This relates to the size of these sectors, which as a percentage of bank assets are higher than in the other countries under examination. In the case of Thailand, restrictive investment rules encourage a high allocation to government bonds.

- 4) Pension plans have no exposure to Singapore's local currency bond market. The Central Provident Fund's (CPF) only investments are non-marketable Special Singapore Government Securities. Assets in the CPF Investment Scheme are invested primarily in investment-linked insurance products (ILPs) and mutual funds, which have been included in the mutual fund category.
- 5) Thai mutual funds are large investors in local currency bonds. There are three reasons for this. First, Thailand's mutual fund sector is large and well developed. Second, provident funds, which operate in a similar fashion to mutual funds and are managed by private-sector asset management firms, are included in this category. Third, Thais favor fixed-income mutual funds, unlike most other countries where equity funds are preferred.
- 6) Taken together, two Malaysian government-run pension plans—the Employees Provident Fund (EPF) and the government employees retirement fund (KWAP)—rival domestic banks as the largest investors in local currency bonds. This reflects the wide participation base and relatively long history of the EPF, as well as the 1991 decision to transition KWAP from pay-as-you-go to a partially funded plan.

These general observations illustrate three factors that affect the relative importance of each type of domestic institutional investor to local currency bond markets. First, size matters. As the asset base of institutional investors grows, so does their likely involvement in local currency bond markets. Second, regulations governing the investment activities of domestic financial institutions influence their holdings of local currency bonds. In general, the more restrictive the regulations, the greater the allocation to local currency bonds, particularly government securities. This is because government debt securities are considered to be the “risk-free” asset, and highly prescriptive investment regulations are designed to limit risk exposures. Third, country-specific (or idiosyncratic) factors can also have a significant bearing on the investor profile of local currency bonds. For instance, the sizable bond holdings of the Philippines' BSF and the use of non-marketable bonds by Singapore's CPF are two examples of the impact of local structures and practices on the domestic institutional investor base.

D. Regulation

90. Regulatory limits are generally not binding on domestic institutional investors in ASEAN countries with respect to their ability to invest in local currency bonds. In fact, the opposite condition is more prevalent: Many institutional investors indicated that they would invest a larger portion of their portfolio in local currency bonds if the supply were greater (especially long-tenor bonds). This applies particularly to government pension funds and insurance companies, which need long-term assets to match their liabilities, and less so to banks, which are the largest bondholders in most markets and tend to have shorter duration liabilities.
91. Financial sector regulation affects the domestic institutional investor base in three ways. First, the regulatory framework sets out the terms and condition under which financial products can be sold. Restrictive policies limit growth potential and with it the amount of assets that these institutions will have available to invest. Second, regulations affect the cost of delivery, which, in turn, affects the demand for investment products. Complex and onerous regulations increase compliance costs and thus the cost of product delivery, although the benefits that they provide in terms of higher consumer confidence in the soundness and safety of financial products may offset compliance costs in whole or in part. Third, regulations influence the construction of investment portfolios, directly in the case of investment-specific rules and indirectly in the case of capital adequacy rules. As noted, strict investment regulations are

normally associated with greater allocations to local currency bonds since these are low-risk investments. However, strict investment regulations may also limit investment in corporate and other country's local currency bonds.

92. Investment decisions by domestic institutional investors are affected primarily by two types of regulations: those governing investment policies; and those governing capital adequacy or solvency requirements. The regulations on investment policies vary most widely, while over time there has been international convergence on capital adequacy requirements for financial institutions, particularly banks.
93. Establishing appropriate investment policy regulations for contractual savings plans is a particular challenge when the capital markets are at an early stage of development. The long-term financial assets required by life insurance companies and pension plans will be in short supply, yet failure to invest appropriately impairs the ability of these institutions to meet their obligations. Essentially by default, bank deposits are often the predominant asset holding of contractual savings institutions in less-advanced emerging markets. This presents challenges in matching the terms of liabilities and compounds the bank-dominance of the financial system.
94. Insufficient supply of local currency bonds can make it difficult to adhere to prescriptive investment regulations. For example, prior to 2001 the Malaysian EPF was required to hold government bonds totaling to 70% of its assets. Despite crowding out other investors to the extent of holding two-thirds of outstanding government debt, it was unable to purchase sufficient bonds to meet this requirement. Adoption of the prudent-person approach permitted the EPF to diversify its holdings, which contributed to the development of the corporate bond market, as well as making less intense the competition with other investors for government debt issues.
95. The prudent-person approach is likely the most appropriate investment rule for contractual savings institutions even in markets at an early stage of development, providing that sound governance structures are in place to develop and implement an appropriate investment policy and monitoring process. Prescriptive approaches either will have to lock-in requirements based on available investment opportunities, notwithstanding that these may be inappropriate for the nature of the institutions' liabilities, or prescribe appropriate investment classes that may not be available. The prudent-person approach puts the onus on the institutions, subject to supervisory review, to establish policies appropriately balancing the investment needs with the assets available in the market. Investment policies are more readily revised to reflect market development than are laws or regulations.
96. Capital adequacy requirements can influence the appetite of institutions for government and higher/lower-rated corporate bonds. Most jurisdictions have now adopted some version of the Basel risk-weighted capital adequacy requirement for banks. The zero weighting of domestic sovereign means that banks are not required by the regulatory regime to hold capital against their portfolios of government bonds. Particularly, when the banking system is highly liquid due to the deposit-funding base outstripping the perceived quality lending opportunities, banks will seek to hold quantities of government debt as longer-term investments in addition to the government securities held to manage liquidity. While generally not a problem in ASEAN countries, fiscal, monetary or exchange rate policies that result in inappropriately high interest rates on government debt can crowd out credit to the private sector, including corporate bonds.
97. One prudential regulation that has affected the corporate bond market in some countries is the single exposure limit. To minimize the threat to a bank from the failure of one counterparty, the maximum bank exposure to a single counterparty or group of related

counterparties is set by the regulator at some fraction of the bank's capital. This ensures that a single loss or even several large losses would not cause insolvency of the bank. In some jurisdictions this limit was at one time inappropriately interpreted so that holdings of the counterparties' bonds were not added to loans to determine total exposures. In some others, limits were either not in place or stringently enforced. Recent initiatives to introduce or more stringently enforce single counterparty limits in the Philippines and Viet Nam have had the effect of reducing bank appetite for corporate bonds; however, this is wholly appropriate from a financial stability perspective.

E. Recommendations

1. Overview

98. There are many ways to expand the domestic investor base for local currency bonds. Examples of most, if not all, policy actions available to governments can be found in ASEAN countries. This provides national policy advisors practical illustrations from the region of how these measures can support the development of domestic capital markets.
99. One overarching measure is to pursue policies to promote the growth of domestic non-bank financial institutions, such as life insurance companies, pension plans and mutual funds.¹¹ A common characteristic of developing financial systems is that they tend to be bank-dominated. ASEAN countries with the most developed local currency bond markets tend to be those with the most developed non-bank financial institutions, particularly contractual savings institutions. Relative to banks, these organizations typically hold larger portions of their assets in marketable securities so, as they grow, so do their investment portfolios. The size of these institutions is linked to economic growth and, in particular, the rise and expansion of the middle class, who are significant users of financial intermediaries. Recommendations to expand the domestic institutional investor base via economic growth policies are outside the scope of this report.
100. Non-bank financial institutions can also be promoted through selected tax policies, particularly tax payment eliminations, reductions and deferrals for retirement savings, which create demand for investment products. For example, in Thailand contributions to retirement mutual funds and long-term equity funds can be deducted from taxable income up to certain maximum contributions. In the Philippines, personal equity retirement accounts will offer similar tax benefits once the program is operational. In the Republic of Korea, life insurance premiums are tax-exempt, which are a significant incentive to the industry. Mandatory participation and contribution rates for retirement savings plans have the same effect. The social benefits of introducing these policies, however, extend well beyond the gains to local currency bond markets. So do the costs. As a result, considerations other than the ancillary benefits to local currency bond markets tend to drive the development of these policies.
101. Requiring institutions with future obligations to pre-fund their liabilities can create new domestic institutional investors. The core purpose of insurance regulation is to ensure that insurance companies have sufficient assets on hand to meet the claims of their policyholders. Defined benefit pension plans have similar obligations and, accordingly, face similar regulations, though some governments have chosen to operate their national pension plans on a "pay-as-you-go" basis. Extending "pre-funding" requirements to other

¹¹ The focus on non-bank financial institutions is based on the premise that banks are the dominant sources of capital and the goal is to reduce dependence on them.

entities with future obligations, such as dental and medical plans, education plans, funeral plans, social-housing depreciation reserves, mining rehabilitation projects and nuclear plant decommissioning, would create additional pools of investable assets.

102. A practical example from the region is the 1991 decision to move the Malaysian government employees retirement fund to a partially funded model, which over time has led to a new institutional investor to help obviate the dominance in the local market of the EPF. The young social insurance agencies in Cambodia, the Lao PDR, and Viet Nam could all develop into significant institutional investors if funds are accumulated under prudent investment policies, although concurrent development of private pensions and the insurance sector is required to mitigate the potential to create a dominant local institution.
103. A unique feature of many Asian economies is that the demand for local currency bonds exceeds supply. A related issue is concentration of the investor base. As a result, increasing the size of the domestic investor base in and of itself may not improve the functioning of local currency bond markets. If the size of the investor base expands due to a few dominant institutional investors getting even larger, then these institutions may be forced into a “buy-and-hold” investment strategy, which, in effect, reduces the overall size of the investable local currency bond market by taking bonds out of circulation. A variety of investor types (particularly with respect to investment objectives and strategies) and competition among investors are the true goals of expanding the investor base.
104. The remainder of this section is organized around recommendations for each type of domestic institutional investor and their relevance to ASEAN+2 countries.

2. Insurance Companies

105. **Move to adopt prudent-person investment rules for insurance companies.** Insurance companies sometimes face highly restrictive regulations on their investment activities. This is the case in Thailand and the Philippines. Conservatism is often regarded as a virtue; a fixed-income manager for a major insurance firm noted that their portfolio was always more conservative than allowed by the firm’s policy. Prescriptive rules encourage insurance companies to hold a large portion of their portfolios in local-currency government securities and high quality corporate bonds. Risk-based capital rules, which greatly lessen the need for prescriptive investment rules, are now common for banks, although still less prevalent in insurance regulation. A prudent-person investment regime, coupled with a risk-based approach to capital and solvency requirements, would permit insurance companies to hold a wider range of local currency bonds (both of their own country and those of other countries) if they deem it prudent to do so.
106. The practical impact of this approach may be limited by the state of the local bond market and risk preferences. For example, Malaysian insurance industry bond portfolios tend to have a conservative focus on government bonds and highly rated corporates despite the use of the prudent-person approach and risk-based capital adequacy. This attributed to inherent conservatism in the investor approach, which in turn contributes to a lack of demand for lower-rated corporate bond issues, stifling the development of a high-yield bond market.

3. Pension Plans

107. **Adopt more permissive investment policies for national and government-sector pension plans.** Investment activities of national and government-sector pension plans in

Asia are typically subject to three levels of regulation. At the highest level are the investment rules contained in the plans' enabling legislation. In most cases, these rules are quite general, granting pension plans reasonable flexibility with respect to their investment activities. The enabling legislation also establishes a governing body—typically a Board of Directors or a Board of Trustees—to oversee the activities of the pension plan. The governing body is responsible for developing and approving the pension fund's investment policies. A third set of regulations may exist if a regulatory authority oversees the pension plan. In practice, it is the investment policies adopted by the governing bodies that are typically the most constraining.

108. In many Asian economies, as is common the world over, the governing body of a pension plan is composed in whole or in part of government appointees, many of whom do not have extensive knowledge of investment matters. These appointees are often excessively cautious, placing strong limitations or outright bans on more risky asset classes, including many that are widely held by pension plans with more knowledgeable and experienced boards. These restrictive policies typically result in investment portfolios with high allocations to local currency government securities. While this promotes investment in local currency bonds (a good thing), national and government-sector pension funds are often forced into “buy-and-hold” investment strategies that reduce market liquidity (a bad thing) due to their large size relative to the market. Adoption of less restrictive investment policies would lessen market concentration and would encourage demand for corporate bonds (including lower-rated issues) and foreign bonds (including local currency bonds of other Asian economies).
109. **Board training in pension-plan governance needs to accompany implementation of the prudent-person rule.** The prudent-person approach requires that the body responsible for approving investment policies and monitoring performance of the fund are knowledgeable of modern portfolio theory and experienced with current investment practices. The use of external investment consultants to advise the Board on investment and other governance matters is common among pension plans in developed countries and provides balance to the sometimes self-interested information provided by internal investment staff and external investment managers.
110. **Ensure pension plans are fully funded.** Not all pension funds in the region are fully funded. For instance, the civil service and armed forces pension plan in Indonesia operates primarily as a “pay-as-you-go” basis, with small reserve funds. KWAP in Malaysia transitioned to partially funded basis beginning in 1991. The social insurance funds in Cambodia, the Lao PDR and Viet Nam are all young and will need to accumulate funds to operate on a sustainable basis. Full funding would expand pension assets, a portion of which would flow into local currency bonds.
111. **Increase the investment options for participants in government plans.** Private fund management can be encouraged, and the market dominance of large provident funds can be reduced by allowing participants to withdraw a portion of their accounts for investment in approved investments. Malaysia and Singapore provide examples, with participants having the option of pursuing potentially higher yielding investments for a limited portion of their contributions through funds offered by approved intermediaries.
112. **Increase the use of external investment managers by government funds.** The market dominance of large government funds can be mitigated by the use of external asset management firms for a portion of the portfolio, as the National Pension Service is doing in the Republic of Korea. This can help stimulate the local funds management business, and also contribute to bond market development generally. For example, the lack of lower-rated issues in many markets might be addressed in part by a provident fund establishing

a domestic high-yield mandate. In Malaysia, the decision to outsource management of a portion of the EPF was in part due to a desire to support development of the local funds management industry.

113. **Encourage the formation of new pension plans.** Many corporations do not offer employee pension plans, particularly among smaller companies and those located in less developed economies. Encouraging corporations to offer pension plans to their employees by offering tax benefits or easing the administrative burdens should be pursued. Brunei Darussalam and Malaysia have recently introduced the regulatory framework for private pension plans, although in both cases it will take considerable time for these to develop into significant pools of capital because of the broad participation and good income replacement of the government-run provident funds. The pension sector is nascent in Cambodia, the Lao PDR and Viet Nam, in part because elements of the regulatory and fiscal framework have yet to be put in place. Creating compulsory plans could also be considered. The creation of additional pension plans would add to the domestic pool of capital available to invest in local currency bond markets.

4. Mutual Funds and Asset Management Companies

114. **Encourage the development of the mutual fund sector.** The mutual fund sector has reached a reasonable size in Malaysia, the Republic of Korea, Singapore, and Thailand where sector assets exceed 20% of gross domestic product (GDP).¹² While mutual fund assets in the PRC are only about 6% of GDP, in absolute terms, it has the largest mutual fund sector in ASEAN+2 countries—about \$350 billion. However, the mutual fund sector in ASEAN+2 countries remains small relative to those in many developed economies. A lack of an investment culture, instances of fraud, cumbersome or inadequate regulatory structures, improper or inaccurate pricing, and poor investor safeguards are factors that have stymied the growth of this sector, although the specific causes in each country differ. In some countries there is an investor segment that considers funds to be trading instruments like stocks, not suitable for long-term investment. The development of a professional investment advisory sector, as is beginning in the Republic of Korea with new legislation, will help to transform the investment culture of the industry. Regulators should ensure that proper disclosure requirements are in place and enforced; pricing is by qualified independent parties; assets are held with third-party custodians; sales professionals are licensed; and sales practices are regulated. The introduction of an investor compensation fund to reimburse investors for losses due to fraud or failure by licensed entities to segregate client and firm funds should also be considered.
115. **Remove restrictions on the ability of mutual funds to invest in non-investment grade and unrated bonds.** Mutual funds are sometimes subject to investment rules that limit or outright prohibit investments in non-investment grade and unrated bonds. Sometimes the requirement is stated in terms of stock-exchange listed bonds, which in turn have quality restrictions. Mutual funds in Thailand are subject to restrictions on non-investment grade securities. While there are no restrictions in Malaysia and the Philippines, the lack of even lower-tier investment grade bonds and almost complete absence of non-investment grade or unrated bond issues has inhibited the introduction of high-yield bond funds. This can be addressed over time through efforts to bring new, lower-rated issuers to the market.

¹² Singapore's asset management sector exceeds 400% of gross domestic product. However, most of these funds are managed on behalf of non-resident investors. The use of mutual funds by local residents is significant but is not as extensive as in many economies of comparable per capital income levels.

116. Rules requiring minimum ratings are designed to protect investors but they have two unintended consequences: (i) They hurt retail investors by limiting their opportunity to invest in high-yield (though higher risk) bond mutual funds and (ii) they discourage less well established corporations from issuing debt because of a lack of demand. Mutual fund regulators should replace merit-based rules with disclosure standards that provide clear information to investors about the risks associated with a particular fund. In the more advanced ASEAN countries, such disclosure requirements are already in place, obviating the need for merit-based investment rules.

5. Government-Related Entities

117. **Encourage government-related entities to contribute to the development of local currency bond markets.** Government-related entities, such as national pension plans and SWFs, could stimulate the demand for local currency debt securities by increasing their use of external managers and adding niche debt-market mandates (such as high-yield bonds) for small portions of their investment portfolio. This would broaden the bond market by spurring demand for new issues.
118. Several SWFs exist in ASEAN+2 countries (see Table 4 at beginning of the chapter). For the most part, these organizations seek long-term investments outside their home countries, or, in the case of Tamasek and Khazanah, in nationally important companies in their home country. Officials overseeing these organizations should consider if a small portion of these funds could be used to promote the development of selected segments of local currency bond markets, such as non-investment grade corporate bonds.

6. Other Measures

a. Eliminating Distorting Taxes

- (i) **Thailand.** The Specific Business Tax (SBT) has hindered the development of Thailand's capital markets by discouraging trading activity. The tax has been effectively eliminated for banks but continues to be applied to insurance companies. This tax should be removed as soon as possible.
- (ii) **Philippines.** The Philippines applies a 20% withholding tax on government securities. Tax-exempt investors hold about 20% of all government securities but, because they trade on net-of-tax basis, non-taxable investors choose not to participate in secondary markets. This has resulted in a segmented market, which reduces market liquidity. Measures to correct this situation should be implemented as soon as possible.
- (iii) **Indonesia.** The new tax on mutual funds, at 5% of income rising to 15%, is a disincentive to the development of the mutual fund sector.

b. Encouraging the Development of Non-Bank Distribution Channels

119. In many ASEAN countries, a wide range of savings and investment products are available to individuals. However, access to these is often highly concentrated through the major commercial banks. Policies to encourage the development of additional distribution channels, such as "mutual fund superstores" and discount brokerage accounts, should be pursued. Government officials should also make sure that "tied selling" activities are not allowed. In the Republic of Korea, new legislation proposes to limit the amount of in-house product (such as guaranteed deposits) that a pension service provider can sell to a client.

c. Promoting Investor Education

120. While not strictly an impediment to market access, retail investors throughout Asia frequently view bonds and bond mutual funds as “stable investment” vehicles. Credit risk and interest-rate risk are defining characteristics of fixed-income securities, and both factors cause the price of bonds to fluctuate; to believe otherwise denies this reality. Regulations, product offerings and sales practices that reinforce the view among investors that bonds offer stable returns is unhealthy. Government and industry efforts to inform consumers about the true risks associated with bonds should be pursued.

d. Development and Promotion of Individual Retirement Savings Accounts

121. Pension coverage is not universal in Asia. Many companies do not offer employee pension plans and those who do not work, or work in the informal sector, are not always covered by government-run plans. Individual retirement savings accounts can fill this gap and tax measures can be used to encourage participation. Typically these plans are administered by banks and life insurance companies, and contributions are invested in mutual funds and/or investment-linked insurance policies.

e. Establishing Environmental Remediation Funds for the Resource Extraction Sector

122. Significant resource extraction industries exist in a number of ASEAN countries. An emerging issue is how to address the need for environmental remediation during and particularly after a mine or production facility has closed. Cleaning up abandoned sites can be costly and extraction companies do not always live up to their obligations. Requiring companies to pre-fund environmental cleanup costs would create an additional pool of capital available to invest in local currency bonds. In fact, local currency bonds with tenors matching expected remediation dates would be particularly well suited to these portfolios.

f. A Final Comment on Domestic Institutional Investors

123. This chapter discussed the investment activities of domestic institutional investors, reviewed their extensive involvement in local currency bond markets, identified the key regulations governing their investment activities, and recommended ways to expand investor base. There are two final observations worth noting:
- (i) Many of the recommendations to expand the investor base should be considered for reasons that are of greater social importance than promoting the development of local currency bonds. Measures such as expanding pension plan coverage, promoting individual retirement savings, and creating environmental remediation funds should be considered because they address important social needs, particularly the impending aging populations in Northeast Asia, and likely soon after elsewhere. That they would also promote the development of local currency bond markets is a useful ancillary benefit.
 - (ii) Increasing the size of the domestic institutional investor asset base is not the most important goal. In fact, in many ASEAN economies, the current investor pool is too large and too concentrated for the size of the market, which hurts liquidity in secondary markets. The primary goal in these cases is to create a more diversified

investor base, rather than a larger investor base, while at the same time taking steps to expand the supply of securities. Liberalizing the investment rules of the dominant investors to enable them to invest a greater portion of their portfolio beyond local-currency government and high-quality corporate bonds, including allowing greater exposure to foreign securities, could improve the liquidity of domestic bond markets.

IV. FOREIGN INSTITUTIONAL INVESTORS

124. This chapter examines the activities of foreign institutional investors in ASEAN local currency bond markets. The focus is on the largest markets: Indonesia, Malaysia, the Philippines, Singapore and Thailand, and is supplemented by examples and analysis from the “+2” countries, the PRC and the Republic of Korea.

A. Overview of Foreign Institutional Investors

125. Foreign institutional investors include banks, national pension plans, public-sector pension plans, private-sector pension plans, insurance companies and sovereign wealth funds (SWFs) that reside in a foreign country. Asset management firms are also important institutional investors, although most of the funds they manage come from other institutional investors.¹³ At the end of 2009, institutional investors managed assets with an estimated value of \$60.3 trillion (Table 7). These figures do not include SWFs and official international foreign exchange reserves, which the International Monetary Fund (IMF) estimates to be about another \$4.3 trillion for SWFs and \$10.0 trillion for foreign exchange reserves.¹⁴
126. Almost half of global institutional assets reside with entities located in the United States (US). At the end of 2009, US-based institutional investors accounted for 45% of the total, followed by Japan (14%), the United Kingdom (8%), France (7%), Germany (7%), and others (19%).¹⁵
127. Foreign institutional investors are those institutions incorporated and domiciled in jurisdictions outside the country under examination. Locally incorporated and regulated foreign financial institutions will be considered domestic entities for the purposes of this report because they are subject to local investment rules. In addition, the investment portfolios of these subsidiaries are largely in support of local business and/or are managed on behalf of local residents.

Table 7 Global Assets Under Management by Institutional Investors
(\$ trillion)

Institutional Investor	1995	2000	2005	2009
Investment funds	6.3	12.1	18.2	24.0
Insurance companies	8.0	10.4	16.3	20.0
Autonomous pension funds	7.2	10.8	14.3	15.9
Other	0.5	0.5	0.5	0.7
Total	21.9	33.5	49.0	60.3

Source: Organisation for Economic Co-Operation and Development and International Monetary Fund estimates.

¹³ According to the International Monetary Fund (IMF) Survey on Global Asset Allocation in 2010, asset management firms' sources of assets were as follows: retail investors (33%), pension funds (26%), insurance companies (18%), banks (3%), endowments (2%), sovereigns (2%) and other/unspecified (16%). See IMF. 2011. Long-Term Investors and Their Asset Allocation: Where Are They Now? Global Financial Stability Report. Washington: International Monetary Fund.

¹⁴ Footnote 13, p. 6.

¹⁵ Footnote 13, p. 5.

128. Table 8 lists the average asset allocation for 49 pension plans that responded to the IMF Survey on Global Asset Allocation. Other surveys find similar results.¹⁶ Insurance companies typically have a higher allocation to fixed-income securities than pension plans.¹⁷
129. Bonds make up a sizable portion of pension-plan investment portfolios (37.1% in 2010). Table 9 shows the average regional allocation of bond investments. Two points of note: (i) a high percentage of bond portfolios are allocated to an investor's home country;¹⁸ and (ii) East Asia/Pacific, which includes Japan, Australia and New Zealand, accounts for a small portion of total bond investments.
130. Institutional investors around the world tend to follow a similar path when they decide to expand their bonds holdings to include those issued outside their home country. They first

Table 8 Pension Plan Asset Allocation by Asset Class
(% of total)

Asset Class	2006	2008	2010
Traditional asset classes			
Cash	1.7	2.1	2.4
Equities	51.4	40.3	44.9
Bonds	36.0	41.9	37.1
Alternative asset classes			
Real estate	5.2	6.7	5.6
Hedge funds	1.5	2.2	2.2
Private equity	2.7	4.5	4.6
Commodities	0.4	0.6	1.0
Other	1.0	1.7	2.1

Source: International Monetary Fund. 2011. Long-Term Investors and Their Asset Allocation: Where Are They Now? *Global Financial Stability Report*. Washington: International Monetary Fund.

Table 9 Regional Allocation of Bond Portfolios for Pension Plans
(% of total)

Region	2006	2010
Own country of domicile	78.1	75.7
East Asia/Pacific	1.8	2.4
Europe	11.7	11.4
Latin America	0.3	0.9
Middle East/North Africa	0.0	0.3
North America	7.9	8.9
South/Central Asia	0.1	0.4
Sub-Saharan Africa	0.0	0.1

Source: International Monetary Fund. 2011. Long-Term Investors and Their Asset Allocation: Where Are They Now? *Global Financial Stability Report*. Washington: International Monetary Fund.

¹⁶ For instance, Towers Watson's *Global Pension Asset Study 2012* found the world average pension plan allocation to be: equities (41%), bonds (37%), cash (2%) and others (20%).

¹⁷ For instance, a report for the Bank for International Settlements (BIS) found that the average bond allocation for insurance companies was 47% in 2005. See Table 2 in BIS (2007, 7).

¹⁸ Studies have shown that there is a home-country bias in equities as well.

start by investing a small allocation (1%–2% of their total portfolio or 3%–5% of their fixed-income portfolio) to a global bond mandate, typically benchmarked to the Barclays Global Aggregate Index (or similar). As investors become more comfortable with investing in foreign bonds, they may then add more specialty mandates, such as global high yield bonds, global corporate bonds or emerging market debt. These latter mandates have only gained widespread use in the past decade as investors sought higher yielding alternatives to the low rates available on bonds in developed countries.

131. Four broad factors drive foreign investor interest in the bonds of a particular country:

- (i) *Macroeconomic factors* relate to the attractiveness of a country from a valuation perspective. Attractive long-term growth prospects, high yields, improving credit fundamentals, and the potential for currency appreciation are examples of the kinds of economic fundamentals that are attractive to investors.
- (ii) *Government factors* relate to political stability and regulatory openness and consistency. Investors are more likely to have confidence in markets where these are present.
- (iii) *Trading factors* relate to the ease with which a portfolio manager can invest and trade in a market. Free capital mobility, high levels of market liquidity, an absence of taxes on investment income and capital market transactions, and efficient clearing and settlement systems are positive factors that investors look for. The availability of interest rate and currency hedging instruments are also important.
- (iv) *Benchmark factors* relate to the demand for bonds of a particular country due to its inclusion in an index. The more widely a benchmark is used, and the higher the weighting of a country in that index, the greater the demand for the debt securities of that country.¹⁹

132. By some measures, global institutional investors are significantly underweight Asia. Asia's contribution to global GDP far exceeds the proportion of Asian investments found in most investment portfolios and benchmarks. Should global institutional investors increase their allocation to Asia by 1%, this would result in capital inflows of about \$600 billion. Not all of this would be invested in local currency bonds, but this "back-of-the-envelope" calculation provides some perspective on the size of the capital flows that could take place.

B. Foreign Institutional Investors and Emerging Market Debt

1. Emerging Market Debt Mandates

133. Emerging market debt (EMD) is composed of foreign and local currency debt issued by governments, quasi-governments, and corporations from developing and emerging market countries. "Emerging markets" are defined either as countries with a non-investment grade credit rating or on the basis of measures of per capita income and other macroeconomic factors. Bonds issued by entities from emerging markets in US dollars, euros and other developed country currencies are referred to as "hard currency" EMD. Local currency EMD is bonds issued in the currency of the issuer. Before foreign institutional investors will invest in

¹⁹ Benchmark factors are not independent of the other three. For instance, trading factors, such as liquidity and capital controls, affect a country's inclusion and weighting in an index.

EMD, they prefer that these instruments be of a minimum size (face value), that they trade with a degree of frequency, that bid/ask quotes be readily available, and that purchases and sales be settled outside the country.

134. The JP Morgan Emerging Markets Bond Global Index (JPM EMBGI) (or the Global Diversified version) is the most widely used index for tracking the performance and risk characteristics of *hard-currency* emerging-markets bond portfolios. The JP Morgan Government Bond Index-Emerging Markets Global Diversified (JPM GBI-EM Global Diversified) is the most widely used index for tracking the performance and risk characteristics of *local-currency* emerging-markets bond portfolios. Appendix 1 provides details on these two indexes, as well as others that track the performance of EMD.
135. EMD is a new asset class for global institutional investors. Prior to 2000, it was rare for institutional investors to have a *dedicated* allocation to EMD. Instead, exposure to EMD (if any) was generally part of a global bond portfolio, a hedge fund portfolio, or a portion of a domestic bond portfolio employing a “core-plus” investment strategy.²⁰ Only the very largest institutional investors, those with perhaps more than \$20 billion in assets under management, would have had a dedicated EMD portfolio prior to 2000. While there has been dramatic growth in the asset class, EMD remains a niche strategy, meaning that most institutional investors do not have a dedicated allocation (particularly smaller investors with, say, less than \$1 billion)²¹ and those investors who do, would have less than 5% of their total portfolio allocated to EMD (and most would have only 1% or 2%).²² Further, until the mid-2000, any EMD holdings were almost exclusively hard-currency issues.
136. Because EMD is a niche strategy, most institutional investors access it through intermediaries, namely asset management firms.²³ These firms are hired by institutional investors, such as insurance companies and pension plans, to manage some or all of their investment portfolio, using either pooled funds or segregated portfolios. Investment managers prefer to manage client assets using pooled funds, setting high minimum-portfolio sizes (typically \$50 million–100 million) for segregated management.
137. In the late 1990s, hard-currency EMD began to be promoted as a distinct asset class. Asset management firms launched EMD funds and they, as well as investment consultants, prepared studies showing that the addition of EMD to an investment portfolio would improve its efficiency (i.e., that it would increase the expected return and/or reduce portfolio risk). Interest in local currency EMD markets grew during the 2000s (both in absolute terms and relative to hard currency markets); by the late 2000s, asset management firms began to actively promote it as a distinct asset class and launched local currency pooled funds for their clients’ use.²⁴ In addition, asset management firms sought client permission to allow a portion of existing hard-currency EMD mandates to be invested in local currency debt.

²⁰ A core plus-strategy is a mandate where the investment management firm is permitted to hold a sizeable portion of the portfolio in “out-of-benchmark” bonds, i.e., bonds that are not included in the mandate’s benchmark. Managers are given this flexibility in exchange for higher value-added targets and the emerging market debt (EMD) is a popular “plus” strategy.

²¹ According to investment consulting firm Marsh, Mercer and Kroll, as of April 2010, only 2% of European pension funds had a dedicated mandate to EMD and only another 8% gave their manager discretion to hold EMD.

²² These observations are based on the authors’ discussions with selected investment managers and investment consultants. “These findings are consistent with the IMF’s Survey on Global Asset Allocation.” The reason being the survey came out prior to this study, unless the author states that the discussions authors had with selected investment managers took place prior to the IMF survey. It should also be noted that these are generalizations and exceptions abound.

²³ Asset management firms can be divided into two types: long-only/traditional managers and alternative/hedge fund managers. While it is widely known that hedge funds invest in EMD (both hard and local currency), there is little data on their activities. As a result, further references to asset management firms will be limited to long-only managers, unless explicitly referenced otherwise.

²⁴ According to JP Morgan, between June 2008 and September 2011, total assets managed against the JP Morgan Global Bond Index-Emerging Market Global Diversified increased by 272%, from \$35.9 billion to \$133.3 billion.

138. The basic “pitch” asset management firms use to promote the addition of local-currency EMD mandates to institutional investment portfolios is as follows:²⁵

- (i) Local currency EMD has performed well relative to other asset classes during the 2000s. This claim is supported by showing the return of the JPM GBI-EM Global Diversified Index in absolute terms and relative to other asset classes.
- (ii) Local currency EMD adds diversification to an investment portfolio. This claim is supported by showing that local currency EMD has low correlation with other asset classes.
- (iii) Adding an allocation of local currency EMD to an existing portfolio will increase its efficiency. This claim is supported by using the efficient frontier model analysis to show that adding 5% to 10% of EMD to a portfolio will increase its expected return and/or reduce its expected risk (defined as volatility).
- (iv) The attractive investment characteristics of local currency EMD are expected to persist in the future because: (1) local currency EMD has a high yield, (2) the yield spread over developed market bonds is expected to compress (thus providing capital gains potential) as local currency EMD receives rating upgrades due to a favorable macroeconomic climate, and as liquidity improves due to growing market size and increased number and variety of participants. Further, these favorable macroeconomic conditions should lead to currency appreciation relative to hard currencies, offering another potential source of return to American and European investors.

2. Emerging Market Debt Mutual Funds and Exchange-Traded Funds

139. Bloomberg lists over 2,600 EMD funds offered by 235 asset management firms.²⁶ The number of funds is *overstated* because many of them are locally registered feeder funds that invest in “top” funds incorporated in other jurisdictions. Other funds offered by the same asset management firm differ only by the jurisdiction of registration, the currency of denomination, or whether the fund is for retail or institutional investors. Offering a currency-hedged version of a fund and employing a slightly different mandate (for instance, allowing only investment-grade bonds in the portfolio) are two other reasons for the large number of funds. The asset management firms with the largest number of EMD funds are: JP Morgan (110), Capital International (98), PIMCO (85), Pictet (76), and BlueBay (75).

140. Using Bloomberg data, we estimate that 184 asset management firms offer *actively* managed *hard-currency* EMD funds. Many of these firms first launched EMD funds in the late 1990s and early 2000s. Using company and other websites, we were able to collect the following information on a single fund from 50 of these firms:

- (i) The fund inception dates were: 2011–2012: five (10%); 2006–2010: 10 (20%); 2001–2005: 14 (28%); 1996–2000: 16 (32%); and 1993–1995: five (10%).

²⁵ This summary is based on the authors’ review of 11 institutional presentations and white papers on EMD. It is worth noting that there is nothing novel about these promotional arguments; all new asset classes tend to be promoted in a similar way.

²⁶ The data are from Bloomberg accessed 26 January 2012. <http://www.bloomberg.com/markets/funds/emerging-market-debt/>

- (ii) The benchmark for 41 of the funds (82%) is the JPM EMBGI (or the Global Diversified version).
 - (iii) Almost all of these funds permit at least 10% of the portfolio to be invested in non-index securities (and some permit up to 20%). Management's discussion of recent fund performance and strategies suggest that this flexibility has been largely used to invest in local currency debt.
141. Six asset management firms offer *passively* managed *hard-currency* EMD ETFs: iShare (BlackRock), Lyxor (Societe Generale), PowerShares (Invesco), WisdomTree, Bank of Montreal, and Amundi.²⁷ At the end of 2011, the combined assets of all hard-currency EMD ETFs was estimated to be \$7 billion, with about half in iShares JP Morgan USD Emerging Market Bond Fund and another quarter in the PowerShares Emerging Markets Sovereign Debt Portfolio. PowerShares launched the first hard-currency EMD ETF in 2007.
142. Using Bloomberg data, we estimate that 60 asset management firms offer *actively* managed *local-currency* EMD funds. Using company and other industry websites, we were able to collect the following information on a single fund from 45 of these firms:
- (i) Fund inception dates were: 2012: one (2%); 2011: eight (18%); 2010: eight (18%); 2009: four (9%); 2008: six (13%); 2007: six (13%); 2006: nine (20%); and 2005: three (7%).
 - (ii) The benchmark for 34 of the 45 funds (76%) is the JPM GBI-EM Global Diversified.
 - (iii) The largest five funds as of 31 December 2011 were: PIMCO Emerging Local Bond Fund Institutional (\$10.3 billion), Pictet Emerging Local Currency Debt (\$9.1 billion), BNY Mellon EMD Local Fund (\$3.3 billion), Dreyfus EMD Local Currency Fund (\$2.6 billion), and the Investec Emerging Market Local Currency Debt (\$2.5 billion).
143. Four firms offer *passively* managed *local currency* EMD ETFs: iShares (BlackRock), State Street, Market Vectors (Van Eck Global), and WisdomTree.²⁸ At the end of 2011, the combined assets of all local market EMD ETFs was about \$2 billion, with about half in WisdomTree's Emerging Markets Local Debt ETF and another quarter in Market Vectors' Emerging Markets Local Currency Bond ETF. All of the local currency EMD ETFs have been launched since 2010.

C. Foreign Institutional Investors and Regional Asian Bond Mandates²⁹

144. Asian bonds (both hard and local currency) are *not* considered a distinct asset class by institutional investors. In other words, institutional investors rarely have a dedicated portfolio of Asian bonds but rather exposure to them (if any) is part of a broader global emerging-markets debt portfolio. Even *Asian* institutional investors typically do not allocate a portion of their portfolio to dedicated Asian bond mandates; instead, like their American and European counterparts, they tend to invest in Asian local currency bonds (apart from home-country bonds) as part of a broader fixed-income mandate.

²⁷ Four other major exchange-traded funds (ETF) providers—State Street, Market Vectors, db x-trackers, and Vanguard—do not offer hard currency emerging market debt (EMD) ETFs.

²⁸ Four other major ETF providers—Vanguard, Lyxor, db x-trackers, and PowerShares—do not offer local currency EMD ETFs.

²⁹ This section excludes single-country Asian bond funds.

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145. Approximately 25 asset management firms offer actively managed Asian bond funds (both local currency and US dollar denominated).³⁰ Discussions with some of these firms in Asia indicated that they actively promote these mandates to clients, prospects and investment consultants. Most of the existing funds are managed on behalf of retail investors. There is considerable heterogeneity among the indexes used to benchmark these funds, although the three most common are the: (i) HSBC Asian Local Bond Index (ALBI), (ii) HSBC Asian USD Bond Index (ADBI), and JP Morgan Asia Credit Index (JACI), an index consisting of US dollar-denominated debt instruments. Market participants commented that one challenge in “selling” this asset class is that there are relatively few investment managers who are capable of managing Asian bond mandates, and investment consultants are reluctant to recommend an asset class to their clients when there are so few firms to choose from and their track-records are short.
146. There are seven Asian bond ETFs, with total assets of \$3.2 billion as of 31 December 2011. The largest two accounted for 96% of the total: the ABF Pan Asia Bond Index ETF (\$2,637 million—see Box 2) and the WisdomTree Asia Local Debt ETF (\$397 million). Both of these funds invest predominantly in local currency debt.
147. Based on available mutual funds and ETF data, we estimate that global assets in dedicated Asian bond funds were between \$15 billion–\$25 billion at the end of 2011. These include both hard-, local- and mixed-currency mandates.
148. Within Asia, asset managers, investment consultants and asset owners have begun to consider whether Asian local currency bonds should be treated as a distinct asset class. Two arguments are being put forward in its favor. First, interest rates movements in the region appear to be more correlated with each other than with interest rates outside of the region. In other words, interest-rate changes in, say, Malaysia, tend to be more correlated with interest-rate changes in Thailand, Singapore and other neighboring countries than they are with interest-rate changes in the US or Europe. Second, movements in Asian currencies relative to one another tend to be correlated. In other words, the baht, ringgit, peso, etc. tend to rise and fall in unison relative to the US dollar or the euro. The minimum risk portfolio for pension plans and insurance companies is a portfolio of government bonds that match the investment characteristics of the fund’s liabilities. For instance, for a Thai insurance company, this would be a portfolio of Thai government bonds. If changes in the value of Thai government bonds is highly correlated with changes in the value of other Asian government bonds because interest rates and exchange rates tend to move in tandem, then adding these bonds to a Thai insurance company’s portfolio expands the investment opportunity set without introducing significant interest rate or currency risk.
149. At this point, these observations are merely hypotheses that require empirical investigation but asset management and investment consulting firms (particularly those located in Asia) are beginning to undertake the necessary research to determine if Asian local currency bonds can be treated as a single asset class. European bonds were not grouped into a single asset class until the 1990s when economic integration and the move to a single currency caused interest rates and exchange rates to move in unison (at least until recently). As Asian economic integration proceeds, the case for a distinct Asian local-currency bond asset class strengthens.

³⁰ Calculated by the author based on Morningstar data. <http://www.morningstar.com/> accessed January 2012.

150. Somewhat ironically, a second factor driving interest in establishing Asian local currency bonds as a dedicated asset class is the current situation in Europe. Asian investors appear to be especially concerned about the macroeconomic risks associated with many European governments, which make up about 20% of the Barclays Capital Global Aggregate Index. Many European government bonds are no longer viewed as “risk-free” investments, and non-European investors are looking to lighten exposure to them. One method under discussion would be to re-weight global bond indexes using GDP or measures of financial strength rather than the current practice of market capitalization, which gives the highest weighting to those countries with the most bonds outstanding. Doing so would reduce Europe’s weighting and would increase the weighting of Asian countries. Another method under discussion in Asia would be for institutional investors to reduce their exposure to global bond mandates and replace this exposure with more specialized bond mandates, such as Asian local currency bonds.

D. Recommendations

151. An academic and/or major investment consulting firm should be contracted to undertake a study to determine if treating Asian local currency bonds as distinct asset class has merit. This work should be done in consultation with leading regional and global investment management firms and key index providers. As part of this work, the strengths and weakness of commercially available regional market indices should be assessed, and recommendations on how they could be improved should be proposed.
152. Continued support for the ABF Pan-Asia Bond Index Fund (PAIF) and eight other country funds. These were an inspired initiative that, to some degree, were ahead of their time (Box 2). This initiative should continue to be supported, although changes to the operation of the fund **should be considered to make it more attractive to investors**. For the PAIF, these include considering a more widely used industry benchmark (such as the HSBC ALBI), having the fund listed on a larger number of Asian exchanges, and adopting a tapered fee schedule that provides lower fees on larger mandates. Consideration should be given to having country funds cross-listed on exchanges outside their home country.

Box 2 Asian Bond Fund Pan-Asia Bond Index Fund

The Asian Bond Fund (ABF) Pan-Asia Bond Index Fund (PAIF) is an exchange-traded fund that aims to track the performance of the Markit iBoxx ABF Pan-Asia Index. The fund was launched in July 2005, with initial contributions of about \$2 billion provided by central banks in Asia plus Australia and New Zealand. The fund invests in local currency government bonds in the People’s Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; and Thailand allocated according to the index weights, which are based on market capitalization, liquidity, sovereign credit rating, and the openness of the market. PAIF is incorporated in Singapore and is listed on the Hong Kong, China and Tokyo stock exchanges.

PAIF was established by the Executives’ Meeting of Asia-Pacific Central Banks to broaden investor awareness of Asian local currency government bonds and to provide a low-cost investment fund to enable investors to easily access these markets. More generally, this initiative was also aimed at identifying impediments to bond market development and to act as a catalyst for regulatory reforms and improvements to market infrastructure. As part of this initiative, country-specific ABF index funds were created in eight Asian countries, which invest in the local currency government bonds of those countries. While the funds have performed well, most of the investment in these funds is from the participating central banks.

E. Foreign Institutional Investment in Asian Local Currency Debt

1. Foreign Investment Patterns

153. Table 10 lists foreign holdings of local currency bonds in selected Asian countries. A further breakdown of this data by investor type and instrument preference is not available but market participants offered the following comments:

- (i) The largest foreign investors are banks and asset management firms, who manage these assets on behalf of pension plans, insurance companies, and SWFs.
- (ii) Bank holdings are disproportionately weighted to shorter-term debt securities.
- (iii) Foreign investors prefer liquid, benchmark issues.
- (iv) Foreign investors hold few corporate bonds.
- (v) Foreign investors find Singapore, the Republic of Korea and Malaysia the easiest markets to invest in. Thailand is also relatively easy. The Philippines and Indonesia are somewhat more difficult. The PRC is the most challenging.

Table 10 Foreign Holdings in Local Currency Bonds for Selected Countries, December 2011

Country	Total Local Currency Bonds Outstanding		Amount held by Foreign Investors		Foreign Investor Share (%)
	Local Units (billion)	\$ (billion)	Local Units (billion)	\$ (billion)	
PRC ^a	21,354	3,389.5	n.a.	n.a.	small
Indonesia ^b	724,000	79.8	228,800	24.6	30.8
Korea, Rep. of ^c	533,000	463.0	59,500	51.7	11.2
Malaysia ^d	805	263.2	120.8	18.1	15.0
Philippines ^e	2,781	63.5	300.3	6.9	10.8
Singapore ^f	231	177.6	37.9	29.1	16.4
Thailand ^g	7,327	230.2	461.6	14.5	6.3

PRC = People's Republic of China.

Notes:

^a The local currency is the renminbi. The Qualified Foreign Institutional Investor program total CNY265.5 billion but most of this is believed to be in equities. Exchange rate was \$1 = CNY6.3011.

^b The local currency is rupiah. This refers to government bonds only. The exchange rate is \$1 = IDR9,068.

^c The local currency is the won. The exchange rate was \$1 = KRW1,152.

^d The local currency is the ringgit. The exchange rate was \$1 = MYR3.06. Total bonds are government and corporate bonds.

^e The local currency is peso. The exchange rate was \$1 = PHP43.78. Total bonds are government bonds only, excluding government-guaranteed corporate issues. Foreign market share is an estimate using 90% of custodian assets and is based on 31 March 2012 data.

^f The local currency is Singapore dollars. The exchange rate was \$1 = SGD1.30. Total bonds include government and corporate bonds. Foreign investment holdings and market share are estimates.

^g The local currency is Thai baht. The exchange rate was \$1 = THB31.83. Total bonds include government and corporate bonds. The foreign market share is an estimate using September 2011 data.

Sources: AsianBondsOnline; <http://asianbondsonline.adb.org/> accessed multiple dates Dec 2011-January 2013 and authors' estimates.

154. The IMF Coordinated Portfolio Investment Survey provides data on foreign holdings of bonds by country of origin (Tables 11, 12 and 13). One limitation of this data for the purpose of this report is that it includes both local currency- and foreign currency-denominated debt securities. However, if we assume that foreign and local currency debt are held by investors in other countries in proportions equal to the amount outstanding, then a few key observations can be made:

- (i) Investors from the US are the largest foreign investors in debt securities for most Asian countries. A notable exception is Indonesia, where Singaporean investors are the largest foreign investors. Market participants indicated that much of this investment originates in Indonesia and is channeled through asset management firms located in Singapore.
- (ii) Singapore and Hong Kong, China are the largest Asian investors, collectively accounting for more than three quarters of Asian investment in Indonesia, Malaysia and Thailand,

Table 11 Regional Holdings of Total Debt Securities, 2010

Investment in:	Total (million)	Investment by:						
		US	UK	Japan	HK	Singapore	EU-15 ^a	Asia
Indonesia	\$42,151	22.8%	4.2%	6.3%	0.9%	30.0%	33.7%	39.7%
Korea, Rep. of	\$151,483	17.0%	14.8%	8.1%	12.2%	11.6%	31.8%	41.0%
Malaysia	\$51,187	23.3%	7.1%	5.4%	10.5%	16.1%	41.4%	33.2%
Philippines	\$26,686	28.1%	3.8%	11.0%	4.3%	10.4%	26.9%	28.7%
Singapore	\$41,850	18.0%	12.6%	11.9%	12.5%	n.a.	26.8%	32.2%
Thailand	\$13,136	15.5%	5.0%	6.7%	5.7%	23.9%	36.6%	38.1%

EU = European Union; HK = Hong Kong, China; UK = United Kingdom; US = United States.

Note:

^a EU-15 includes Austria, Belgium, Denmark, Finland, France, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom. Data can also be found in Table 12 of the Asian Bond Monitor April 2012 issue, p. 41.

Source: International Monetary Fund. 2010. IMF Coordinated Portfolio Investment Survey. Washington: International Monetary Fund.

Table 12 Regional Holdings of Total Debt Securities, 2011 (\$ million)

Investment in:	Investment by:						
	HK	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Thailand
Indonesia	393 ^a	n.a.	85	701	939	12,160	35
Korea, Rep. of	17,535	191	n.a.	1,930	152	25,068	6,710
Malaysia	6,851	40	243	n.a.	31	10,185	51
Philippines	621	2	23	245	n.a.	2,746	0
Singapore	5,188	508	89	2,822	104	n.a.	356
Thailand	633	12	102	165	41	3,334	n.a.

HK = Hong Kong, China.

Note:

^a 2010 data.

Source: International Monetary Fund. 2011. IMF Coordinated Portfolio Investment Survey. Washington: International Monetary Fund. (Preliminary, accessed January 2013). <http://cpis.imf.org/>

Table 13 Major Country Holdings of Total Debt Securities, 2011 (\$ million)

Investment in:	Investment by:						
	Japan	US	UK	France	Germany	Netherlands	Switzerland
Indonesia	2,631	11,944	1,654	176	1,564	1,202	118
Korea, Rep. of	17,595	29,550	12,674	3,787	4,333	1,158	4,419
Malaysia	2,731	14,964	4,221	805	1,444	1,493	194
Philippines	2,563	8,591	1,574	106	1,428	857	1,010
Singapore	5,428	11,656	6,864	639	515	800	1,101
Thailand	884	1,874	682	205	478	529	18

UK = United Kingdom; US = United States.

Source: International Monetary Fund. 2011. IMF Coordinated Portfolio Investment Survey. Washington: International Monetary Fund. Preliminary, accessed January 2013). <http://cpis.imf.org/>

and more than half in the Republic of Korea and the Philippines. This size reflects their status as regional financial centers, and the beneficial owners of much of this investment are located outside these two cities.

- (iii) European investors have sizeable holdings of Asian debt securities. About half of it is domiciled in the United Kingdom and Luxembourg. A large number of asset management firms are based in London and many European asset management firms incorporate their Undertakings for Collective Investment in Transferable Securities funds in Luxembourg.
- (iv) Japanese investors are important investors in Asian debt securities but they certainly do not dominate. Market participants commented that European and American asset management firms have been more active in Asian local currency markets than Japanese firms.

2. Benchmarks

- 155. As previously discussed, most foreign institutional investors invest in Asian local currency debt via investment funds that are benchmarked to the JPMGBI-EM Global Diversified. As of 31 December 2011, there were four East Asian countries in the JPMGBI-EM Global Diversified Index: Malaysia (10%), Indonesia (10%), Thailand (10%), and the Philippines (0.5%). Passively managed funds, like index funds and ETFs, will maintain the index weight in each country. Actively managed funds will vary their portfolio allocations to each country based on their investment outlook.
- 156. Active managers will overweight those countries whose bonds appear to be cheap and will underweight those that appear expensive. In most market environments, managers with overweight positions will be matched by managers with underweight positions such that the industry in aggregate has a weighting equal to the JPMGBI-EM Global Diversified Index. In some periods, however, the majority of managers will hold the same view, and this can result in significant capital inflows or outflows. Actively managed portfolios are almost always permitted to hold up to 10%–20% of their portfolio in the bonds that are not included in an index. Thus, country weightings in the JPM GBI-EM Global Diversified play an important role in the amount of foreign institutional investment in local currency

bonds, but the exclusion of a country from an index does not mean that foreign investors will ignore entirely bonds from issuers in non-index countries.

157. The JPM GBI-EM Global Diversified Index excludes a number of ASEAN+2 countries because their economies are too advanced (Singapore and the Republic of Korea), there is a presence of significant capital controls (the PRC), or their bond markets are too small and illiquid (Brunei Darussalam, Cambodia, the Lao PDR, Myanmar, and Viet Nam). In the latter case, bonds from these countries do not satisfy the JPM GBI-EM Global Diversified Index's eligibility requirements because available issues are too small in size, limited in number, liquidity and price availability are not sufficient, or bond transactions cannot settle outside the country.
158. While much less widely used by institutional investors, the HSBC ALBI provides a benchmark for dedicated Asian bond market portfolios. As of 2 August 2010, there were 10 countries in the index, seven of which are under examination in this report: Malaysia (16%), the Republic of Korea (10.6%), the PRC (9.7%), the Philippines (8.6%), Thailand (8.3%), Indonesia (7.8%), and Singapore (3.6%). Portfolio managers expressed some frustration with this index. First, index returns are reported on a pre-tax basis (except for the Philippines component), which makes it challenging to exceed the JPM GBI-EM Global Diversified Index's performance when reporting on an after-tax basis. Second, ALBI includes non-investable bonds, i.e., those from the PRC and India. This creates tracking-error and performance issues, which clients and investment consultants do not always fully appreciate.

3. Recommendation

159. Relevant officials should monitor their country's inclusion in global bond indices as their inclusion and weighting can influence foreign investor interest in them. They should also identify the most popular benchmarks in use. Multiple market indices are available to track the performance of local-currency emerging market debt portfolios and local-currency Asian debt portfolios. Depending on the construction methodology, the weighting given to a particular country by one index can be quite different from the weight given to the same country by another index. The market indices that are used most widely by institutional investors are what matter most.

4. Barriers to Foreign Institutional Investors

160. The ADB through the ABMI has undertaken considerable work on barriers to foreign investment in Asian bond markets. This section draws heavily on that work,³¹ supplemented with additional insights provided by market participants during the authors' field visits.
161. Market barriers take two forms: those that apply exclusively to foreign investors and those that apply to all investors (domestic and foreign). Barriers that most directly affect foreign investors include capital controls, investor registration rules, limits and administrative procedures on foreign exchange transactions, availability of foreign exchange hedging instruments, withholding taxes, and cross-border clearing and settlement systems. Additional barriers that affect both foreign and domestic investors include market liquidity, taxes on investment income and capital gains, market transactions costs, and the availability of repo markets and interest rate hedging instruments. This section will only address the barriers that apply exclusively to foreign investors.

³¹ ABMI Group of Experts. 2010. Market Assessments. In Appendix 3 of Barriers to Cross-Border Investment and Settlement in ASEAN+3 Bond Markets. Manila: Asian Development Bank.

162. Global asset-management firms are generally satisfied with their ability to access six of the seven largest ASEAN+2 markets (Singapore, the Republic of Korea, Malaysia, Thailand, the Philippines, and Indonesia). Singapore was universally viewed as the easiest market in which to buy and sell domestic bonds, followed closely by Malaysia and the Republic of Korea. With elimination of the unremunerated reserve requirement in 2008, Thailand is also seen as a relatively easy market in which to invest. The Philippines and Indonesia are seen as more difficult markets but investment professionals noted that significant improvements have been achieved in recent years. One interesting observation is that portfolio managers, who have responsibility for trade execution, were generally more satisfied with the ease of access than back-office professionals. This is likely because back-office professionals are responsible for clearing and settlement activities, where minor differences in handling and notification procedures can create additional work.
163. The PRC is a somewhat different story. Only Qualified Foreign Institutional Investors (QFII) are eligible to participate in the domestic bond market. QFIIs are subject to a quota on the amount that they can invest and are limited to exchange-listed bonds, and at least 50% of the funds that they invest in the PRC must be in equities. Further, the renminbi is not freely convertible, and all foreign exchange transactions require approvals and are subject to a variety of restrictions and administrative requirements. Market participants commented that the application process for QFII status is complex, time consuming and opaque.
164. Table 14 assesses the key barriers facing foreign investors in selected Asian countries and Table 15 identifies key areas of concern by country. Setting aside the PRC (see above), foreign investors see withholding taxes and administrative procedures associated with foreign exchange transactions as the biggest barriers to investment. Withholding taxes reduce a bond's effective yield. Further, withholding taxes can also make it more difficult for investment managers to exceed the return on market indexes that are not adjusted for taxes (e.g.,

Table 14 Barriers to Foreign Investors

Barrier	PRC	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Thailand
Quotas	Yes	No	No	No	No	No	No
Investor registration required	Yes	No	Yes	No	Yes	No	Yes
FX conversion limits	Yes	Yes	No	No	No	No	No
FX registration required	Yes	Yes	No	No	Yes	No	Yes
FX swaps available	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FX futures available	No	No	Yes	No	Yes	No ^a	Yes
Withholding tax (foreigners)	Corp only	Yes	Yes	No	Yes	No ^a	Yes
Capital gains tax (foreigners)	No	Corp only	Yes	No	Corp only	No	Corp only
Clearing and settlement ^b	Moderate	Good	Good	Excellent	Good	Excellent	Good

Corp = corporates; FX = foreign exchange; PRC = People's Republic of China.

Notes:

^a Indicates some minor exceptions.

^b Based on overall barrier assessment in the ABMI report on omnibus accounts, settlement cycle, message formats securities numbering, matching, and dematerialization. Excellent = 5–6 OK's, Good = 4 OK's or 3 OK's and all other low, Moderate = 3 OKs, Poor = 0–2 OKs.

Sources: ABMI Group of Experts. 2010. Market Assessments. In Appendix 3 of Barriers to Cross-Border Investment and Settlement in ASEAN+3 Bond Markets. Manila: Asian Development Bank; Goswami, Mangall and Sunil Sharma. 2011. The Development of Local Debt Markets in Asia, in Masahiro Kawai and Eswar Prasad, eds. *Asian Perspectives on Financial Reforms and Regulation*. Manila: Asian Development Bank; Bank for International Settlements. 2011. *Quarterly Review*. Basel: Bank of International Settlements.

Table 15 Foreign Investor Major Concerns by Country

Country	Major Issues
PRC	<ul style="list-style-type: none"> • Quotas and right of establishment • Restrictions and administrative procedures on FX transactions • Inability to use omnibus accounts
Indonesia	<ul style="list-style-type: none"> • Restrictions and administrative procedures on FX transactions • Withholding taxes • Complex/ambiguous regulatory framework and fear of abrupt rule changes
Korea, Rep. of	<ul style="list-style-type: none"> • Withholding taxes • Inability to use omnibus accounts
Malaysia	<ul style="list-style-type: none"> • No major concerns
Philippines	<ul style="list-style-type: none"> • Administrative procedures on FX transactions • Withholding tax • Fear of abrupt rule changes (related to decision to impose withholding tax on Poverty Eradication and Alleviation Certificates)
Singapore	<ul style="list-style-type: none"> • No major concerns
Thailand	<ul style="list-style-type: none"> • Administrative procedures on FX transactions • Withholding taxes • Complex/ambiguous regulations and fear of abrupt rule changes

FX = foreign exchange; PRC = People's Republic of China.

Sources: ABMI Group of Experts. 2010. Market Assessments. In Appendix 3 of Barriers to Cross-Border Investment and Settlement in ASEAN+3 Bond Markets. Manila: Asian Development Bank, and Market Participants.

the HSBC ALBI). Bilateral tax treaties in some cases allow taxes to be recovered but market participants indicated that doing so can be difficult in practice due to demanding reporting requirements and, in the case of global asset-management firms, the assets are held on behalf of clients in many countries, not all of which have tax treaties with the country in question.

165. Foreign-exchange administrative requirements typically involve having to open foreign exchange and local currency accounts with local banks, providing documentary evidence as to the legitimacy of the foreign currency transaction, and reporting all transactions to appropriate authorities. In the case of Thailand, foreign investors are subject to a maximum daily limit on the amount of local currency that can be held in their local bank accounts. While these practices are not a direct barrier to foreign investment, they add to the administrative costs of operating in those markets. They can also impact portfolio returns if administrative procedures delay foreign exchange conversions by even a day or two.
166. The ability to use omnibus accounts is remarkably important for foreign investors, especially global asset-management firms. Omnibus accounts enable local custodians to hold the investments of multiple clients in a single account. For global asset-management firms, this means that the investments of all their clients can be kept in a single custodian account.³² This reduces transaction costs and increases operational flexibility by enabling the transactions of all the clients of a single asset-management firm to be netted for clearing, settlement and reporting purposes.
167. Market participants indicated that their fear of arbitrary rule changes has diminished but is still present for Indonesia, the Philippines and Thailand, albeit at lower levels than in the

³² Global investment-management firms often manage client funds on a segregated basis. This means that Global Asset-Management Firm A may have 30 accounts in, say, Thailand. Being able to hold all Thai assets in a single custodian account is much more efficient than in 30 custodian accounts.

past. Change in the governing authority is often associated with policy and rule changes. In addition, frequent changes in government can slow the legislative process, preventing needed legislative and regulatory changes to deal with ongoing market developments from being implemented on a timely basis. At times, this means that existing rules are silent on some matters, or are confusing because they have been modified in an ad hoc and/or uncoordinated manner.

F. Recommendations

168. **Reduce or eliminate** withholding taxes, subject to other policy considerations. Withholding taxes were cited as the biggest obstacle by foreign investors. Any reduction in the withholding tax, however, must be considered in the broader context of government revenue requirements and the desire to influence capital inflows.
169. **Reduce or eliminate** foreign exchange restrictions.
170. **Streamline or eliminate** foreign exchange administrative requirements.
171. **Allow foreign investors to use omnibus custodial accounts.** Most ASEAN countries allow omnibus accounts and there have been no reported problems with their use. Omnibus accounts are particularly helpful to global asset-management firms, who along with banks are often the largest class of foreign investor in local currency bonds.
172. **Enable bond transactions to be settled through Euroclear (or equivalent).** This is important to foreign investors, although substantial progress has been made over the past decade to improve the efficiency of clearing and settlement systems. While clearing and settlement is no longer seen as a major impediment to foreign investment, initiatives to further improve these systems should continue to be supported.

G. Capital Controls³³

173. Too much foreign investment, especially in the form of inflow surges, can be disruptive to an economy. The most immediate impact of rapid capital inflows is upward pressure on exchange rates. For manufacturing-based economies, as is common in Asia, an appreciating currency threatens exports and, with this, output and jobs. Rapid capital inflows can also inflate real-estate and financial-asset prices, which, in extreme cases, can lead to pricing bubbles that create adjustment problems down the road when they inevitably burst. Rapid inflows can also undermine the central bank's ability to manage the money supply. Capital inflows that are temporary in nature can be equally disruptive when flows reverse direction once the conditions that initially prompted them, such as large interest-rate differentials, dissipate. This is especially the case in less-developed financial markets that lack the size and liquidity to easily accommodate sudden outflows.
174. Balanced against this, however, are the numerous benefits foreign investors confer on developing bond markets. First, by increasing demand for domestic debt securities, foreign

³³ See, generally, Ostry, Jonathan et al. 2010. Capital Inflows: The Role of Controls. *IMF Staff Position Note*. Washington: IMF; Gochoco-Bautista, Maria Socorro et al. 2011. How Effective are Capital Controls in Asia. *ADB Economics Working Paper Series*. No. 244. Manila: ADB; Balakrishnan, Ravi. 2012. Surging Capital Flows to Emerging Asia: Facts, Impacts and Responses. *IMF Working Paper WP/12/130*. Washington: IMF.

investors put downward pressure on local interest rates. Second, foreign investors contribute to market liquidity by diversifying the investor base and utilizing a wider range of trading strategies. Third, foreign investors demand higher standards of corporate governance, which encourage local companies to improve governance practices and transparency.³⁴ Fourth, foreign investors conduct and disseminate research on domestic bond markets, which heightens global awareness of the opportunities in these markets and contributes to market efficiency. Fifth, foreign investors with a local physical presence employ high-quality professionals (both locals and expatriates) that contribute to the professionalization of the market and the adoption of global best practices. Sixth, foreign investors encourage financial innovation by introducing trading techniques and demanding financial instruments that are utilized in more advanced markets. Seventh, foreign investors contribute to a “culture of investment,” whereby capital is allocated on the basis of valuations and expected returns rather than familial ties and political affiliations.

175. Policymakers have several tools available to them to control capital inflows, though they can be broadly divided into two categories: price-based controls and administrative controls. *Price-based controls* seek to reduce capital inflows by making the return on domestic assets less attractive to foreign investors. Withholding taxes and unremunerated reserve requirements (URRs) are two examples of price-based controls that have been used in Asia. *Administrative controls* seek to reduce capital inflows by rationing the amount of capital that can be brought into a country. Quotas on inward investment and selective licensing requirements for market access are two examples of administrative controls that have been used in Asia to constrain capital inflows. Limits on lending to foreign borrowers and involvement in currency derivatives are further examples of administrative controls. Another type of capital control is minimum holding periods, which embody elements of both price and administrative controls.
176. The most effective capital control depends on the cause of the inflow. For instance, price controls are more effective than administrative controls to deal with temporary surges of capital inflows due to interest-rate differentials. Existing administrative apparatus is also relevant to selecting an appropriate capital control. Countries tend to rely on capital controls that they have used in the past because the administrative processes and monitoring systems to effectuate the control are already in place. The effectiveness of capital controls requires constant monitoring as capital is highly fungible and will seep around poorly designed controls through channels that are free of controls.
177. Capital controls in Asia have more recently been targeted at debt instruments only. One reason for this is that the most pressing concern for Asian governments has been their appreciating currencies, which has been linked to growing foreign investment in local-currency government debt securities. A second reason for focusing on debt controls was Thailand’s experience with URRs in December 2006, which was applied to both foreign debt and equity positions. Immediately following the announcement, the Stock Exchange of Thailand Index dropped by nearly 10%, leading the government to reverse course the following day by exempting the URR on equity transactions.³⁵ This provided a cautionary tale to other governments in the region.

³⁴ IOSCO Emerging Markets Committee. 2012. Development and Regulation of Institutional Investors in Emerging Markets. Madrid: IOSCO, p. 50.

³⁵ According to two Thai central bank officials, in addition to the decline in stock prices on the first day (and fears of more selling pressure), the URR for equity investments was also exempted because custodian banks indicated that they could monitor equity flows via special accounts, and recognition that equities were not likely to be used for currency speculation. See Yunyong Thaicharoen and Hasha Ananchotikul. 2008. Thailand’s experiences with rising capital flows: recent challenges and policy responses. *BIS Papers*. No. 44. Basel: Bank for International Settlements. p. 444.

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178. Asia has experienced repeated periods of capital surges, most recently in 2010. Quantitative easing in developed economies created a flood of liquidity, some of which went to Asia economies because of their attractive economic fundamentals and higher interest rates. At the same time, the PRC indicated that it would allow the renminbi to appreciate (within bands), creating the expectation that all Asian currencies would move higher, boosting the potential return to foreign investors.
179. In response to surging capital inflows, the Republic of Korea, Indonesia and Thailand imposed capital controls in 2010. The Republic of Korea placed limits on local and foreign banks' currency derivatives positions and instituted a 14% withholding tax on interest income from government bonds paid to foreign investors. Indonesia introduced a one-month holding period for central bank bills and phased out shorter-term maturity bills. It also extended the minimum holding period on Bank Indonesia Certificates to six months. Thailand reinstated a 15% withholding tax on interest income, discount income and capital gains on government and corporate debt securities.
180. Not surprisingly, foreign investors universally dislike capital controls. They compromise a central tenet of modern finance theory, which is that capital should be allocated where it will yield the highest returns. More practically, price controls lower returns to investors and complicate performance reporting against benchmarks. Administrative controls make portfolio management more difficult by adding to administrative and compliance costs and restricting access to bonds that may be part of a manager's portfolio benchmark. Minimum holding periods reduce portfolio liquidity, which can impact a manager's ability to rebalance portfolios and to adjust to changes in its client base. If capital controls are necessary, market participants want the rules to be clear, unambiguous, and easy to administer. They also want controls not to be applied retroactively to existing investments.

1. Recommendation

181. More academic and practitioner research needs to be undertaken to determine the impact of capital controls on operation and long-term development of local bond markets. This work should include input from global asset-management firms as to the types of capital controls that they find most palatable.

H. Chapter Summary

182. Global institutional investors have investable assets in excess of \$60 trillion. The largest global investors are pension plans, insurance companies, banks, and SWFs. Large global investors manage the majority of their assets using in-house investment professionals while mid-size and small institutional investors hire external asset-management firms. Global asset-management firms are also significant investors. They are not the beneficial owner of the assets that they manage but instead invest on behalf of individuals and institutions.
183. Local-currency emerging market debt is a new asset class. While it is common for large institutional investors to have up to 1% to 2% of their total portfolio allocated to EMD, majority of institutional investors around the world have no exposure. Most institutional investors use external investment-management firms to manage their local-currency EMD portfolios, and these portfolios are typically benchmarked to the JP GBI-EM Global Diversified Index. Dedicated local-currency Asian bond mandates are rare.

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184. Foreign institutional investors generally account for between 5% and 15% of the local-currency bonds outstanding in major ASEAN+2 economies. The PRC on the low side and Indonesia on the high side are the major outliers. Asset management firms account for most of the debt held by non-residents, although their portfolios are managed on behalf of other institutional investors, primarily pension plans, life insurance companies and SWFs. Foreign investors hold primarily government and quasi-government bonds, although dedicated corporate bond mandates are beginning to appear.
185. Withholding taxes and administrative procedures on foreign exchange transactions are the key barriers faced by global institutional investors in larger ASEAN bond markets. While global asset-management firms would like to see these barriers eased or removed, they were generally satisfied with their access to major ASEAN markets. The notable exception is the PRC, which continues to have strict controls on market access and foreign exchange transactions.
186. Policymakers have several tools available to them to control capital inflows. Price-based controls seek to slow capital inflows by making the return on local bonds less attractive. Administrative controls seek to reduce capital inflows by rationing the amount of capital that can be brought into a country. Foreign investors dislike all forms of capital controls but, if they must be imposed, they want the rules to be clear, unambiguous, easy to administer and to have no retroactivity.

V. INDIVIDUAL INVESTORS, DOMESTIC MUTUAL FUNDS, AND EXCHANGE-TRADED FUNDS

187. Individual investors do not directly hold significant portions of outstanding corporate bonds in ASEAN countries, with the exception of Thailand. Even in countries such as Singapore—which actively facilitate sale of government debt to retail investors—and Indonesia, Malaysia and Thailand which use government savings bond programs, the total share of outstanding government debt directly held by individuals generally remains in the low single digits. However, individuals in many of ASEAN markets indirectly hold significant amounts of corporate and government debt through collective investments such as mutual funds.
188. The mutual fund and exchange-traded fund (ETF) sectors provide individual (and often institutional) investors with portfolio diversification and professional investment management. The mutual fund and ETF sectors are also garnering a growing portion of investable assets around the world, including local currency bonds. The discussion on domestic mutual fund and ETF sectors in ASEAN economies in this chapter focuses on their use by individual investors, particularly as a means for individuals to gain exposure to local currency bonds in the home country. Although institutional investors may hold mutual funds, this is not the focus of this chapter. Further, mutual funds and ETFs are inextricably linked to asset management firms, who are hired by and, in fact, often sponsor, them. The activities of asset management firms extend beyond mutual funds and ETFs due to their role in managing funds on a segregated basis for institutional investors located in and outside their home jurisdiction.

A. Individual Investors

189. Promoting retail investment in the bond market offers the opportunity to diversify the investor base beyond institutions, potentially providing a continuing and stable funding source for corporates and government. However, it also presents special challenges with respect to investor protection, and for the cost and efficiency of issuance and trading.
190. With the exception of Thailand where individuals hold a significant amount of corporate debt, holding marketable bonds is not popular among retail investors. Those seeking higher risk and return may be more interested in equities, while more conservative investors may prefer bank deposits. In many cases, it is not easy for retail investors to purchase bonds. Retail investors may have limited access to new issues. With high institutional investor demand for new issues in most ASEAN markets, underwriters and brokers may have little interest in allocating small amount to retail investors. The costs of trading small amounts of bonds may be a deterrent—high brokerage fees may be required to cover the fixed-cost element.
191. Most of the direct holdings of corporate bonds by individuals in ASEAN countries are currently owned by exempt investors—those individuals who by virtue of the size of their investment are deemed to have sufficient knowledge of the instrument and concomitant

risks. Developing a specific focus on the retail segment—investors not presumed to have sophisticated market knowledge—requires a well-established disclosure and market conduct regime, including investment suitability requirements. Brokers or financial advisors can play an important role in building a portfolio appropriate for a client’s investment objectives and risk tolerances, which could include a fixed-income component.

192. One option to facilitate retail bond investment is to permit or require bond trading on a stock exchange, meaning that any individual with a brokerage account would be able to directly acquire corporate or retail bonds. This is generally opposed by market participants on cost and efficiency grounds. Bond trading is almost universally OTC, and requiring all bond trading to take place on a stock exchange to facilitate retail trading could result in a significant additional cost for all market participants.
193. There are several options available to government debt managers to directly reach retail investors. One is a retail savings bond program, such as the Obligasi Ritel Indonesia, Malaysian Savings Bond and Islamic Merdeka bond programs, Thai Government Savings Bonds, and Philippine Retail Treasury Bonds. Typically government savings bonds are issued in very small amounts—face values equivalent to \$100 or less—and are distributed through banks and other financial institutions, with the institution receiving a commission on the sale. Thai Government Savings Bonds were distributed through automated teller machines (ATMs) for the first time in September 2011. One of the main benefits of these programs is to provide retail investors with a simple alternative to bank deposits. This is beneficial in the liquid banking sectors prevalent in ASEAN countries, and also helps to introduce retail investors to new classes of investment.
194. Another option to directly target retail investors is to reserve a tranche of each or selected government bond issues for retail, non-competitive subscription. Individuals could submit orders directly or through brokers which would be filled at the average auction price. Singapore facilitates direct purchase by making marketable government bonds available through ATMs. Alternatively, the same objective can be achieved through requiring primary dealers to allocate bonds to retail clients. Including this as one of the performance criteria for evaluating primary dealers would encourage them to actively develop a retail investor base.
195. Corporate issuers can require underwriters to reserve a tranche of new issues for retail investors. Government-related issuers can play a leadership role in establishing this practice. Cagamas, the largest corporate issuer in Malaysia, has done this as part of its bond market development mandate. Many Thai corporate issuers see significant benefits in cultivating a retail-investment following, with the result that individuals directly hold almost 17% of outstanding debt securities—several times the average amount held by retail investors in ASEAN countries. These issues are distributed through the branches of the underwriting banks, providing easy access to a class of asset that might not otherwise be considered by bank depositors.

B. Mutual Funds and Exchange-Traded Funds

196. A mutual fund is an investment vehicle that pools the assets of multiple investors and is managed by an investment management firm. Mutual funds are established with a specific investment objective that can be broadly divided into five categories: (i) money market funds; (ii) bond funds; (iii) equity funds; (iv) mixed or balanced funds;³⁶ and (v) alternative

³⁶ Mixed fund hold two or more asset classes.

funds.³⁷ Many fund sub-categories exist for each category (e.g., global bond funds, domestic bond funds, high-yield bond funds, long-term bond funds, etc.). Most mutual funds are managed on an active basis, meaning the investment manager constructs the portfolio based on his or her assessment of the best opportunities available in the market, subject to regulations and the investment policy of the fund. Passive (or index) mutual funds are also popular. Under this arrangement, funds are designed to match the return of a specific market index (less expenses), which they do by holding all of the securities in the reference index or by using a rules-based sample of securities in the reference index.

197. Mutual funds are offered on a prospectus or private basis.³⁸ Investors purchase units or shares³⁹ of the mutual fund and receive on a pro-rata basis the fund's investment income (interest, dividends and capital gains) less operating expenses (mostly regulatory fees, administrative expenses and investment management fees). Investors may also have to pay a commission on the purchase and/or sale of the mutual fund. Open-end funds issue an unlimited number of units/shares, which are bought and sold at end-of-day prices, generally through an investment advisor. Closed-end funds issue a set amount of units/shares and, after issuance, are generally bought and sold on an exchange at any time during opening hours.
198. National securities and exchange commissions most often regulate mutual funds, although in some jurisdictions other regulatory bodies may regulate part or all of this sector. Regulations can be divided into three broad categories: disclosure requirements, limits on investment activities, and sales practices. The cornerstone of disclosure regulations is the requirement that mutual funds file a prospectus with the regulator, and that units/shares of the fund cannot be sold until the prospectus has been approved. Regulations typically specify in detail the types of information that the prospectus must include, such as information on investment objectives, risks, performance, portfolio holdings, and fees. Details on the fund sponsor, manager, auditor, custodian, and other relevant parties must also be provided. In addition to the prospectus, mutual funds must also prepare quarterly, semi-annual or annual performance reports to unit/share holders, and an independent auditor on an annual basis must review the fund's financial position. A trend in mutual fund regulation which could be considered best practice, and which is being adopted in most jurisdictions, is to require separation of investment manager and the securities custodian, or at least to disclose the affiliation between the manager and the custodian, and to limit investment in the securities of these entities.
199. Investment regulations vary tremendously by jurisdiction. Some are broad, merely requiring the investment manager to act in a prudent manner. Others are very specific, setting maximum limits on holdings in single companies and, in the case of fixed-income mutual funds, minimum credit ratings. There may also be limits on foreign holdings, short selling, leverage and the use of derivatives. Requiring diversification and a minimum amount of the portfolio to be invested in liquid securities is also common.
200. A license or professional certification is required in most countries to sell mutual funds. This usually requires specific training, passing an exam, and sponsorship by a financial institution. Sales practices are also regulated, particularly the presentation of fund performance information and the requirement to provide a prospectus to an investor before (or

³⁷ Alternative funds hold non-traditional assets (e.g., real estate, commodities) or pursue non-traditional investment strategies, such as shorting and using leverage (e.g., hedge funds).

³⁸ Funds offered by way of a prospectus must file disclosure documents with the appropriate regulator and cannot sell units/shares of the fund until approved. Mutual funds offered on a private basis are typically done by way of an offering memorandum (a more limited disclosure document) and are only available to accredited (exempt) investors (high net-worth individuals and institutions).

³⁹ If the mutual fund is established as an investment trust, then participants own units of the trust. If the mutual fund is established as a corporation, then participants own shares of the corporation.

immediately following) an investment. Most regulators also require fund sponsors to make it clear that investments in mutual funds are not covered by deposit insurance schemes.

201. Mutual funds are sold in most countries primarily through bank branches due to their dominant position in the financial sector. Bank-selling platforms vary: Some only offer proprietary mutual funds, i.e., those that are sponsored and managed by a bank-affiliated asset management firm while others have a more open-selling architecture. The sale of mutual funds in banks is usually limited to specially trained and licensed staff, and often must be transacted at a desk in the branch that is separate from deposit-taking activities. Typically the second biggest distributors of mutual funds are life insurance agents, who will sell them directly or packaged in investment-linked insurance products. Brokerage accounts at securities dealers and direct sales by asset management companies are two other ways mutual funds are distributed to individual investors. Among Internet-enabled investors, electronic platforms and fund supermarkets are growing in some countries.
202. Most countries limit the sale of mutual funds to those that are established and custodied in their jurisdiction. There are some exceptions, of which Singapore is one. In most cases, a mutual fund established in country A cannot be sold in country B. However, a number of countries permit feeder funds, whereby a fund established in one country invests in a fund established in another country. Where this is permitted, there are typically rules that prohibit fees-on-fees, i.e., fees cannot be charged on both the feeder fund and the underlying fund. Global asset-management firms frequently use feeder funds to allow the sale of their flagship funds in multiple countries and/or to different types of investors.
203. The above discussion focused solely on mutual funds. ETFs are similar to mutual funds in virtually all respects. The key difference is that ETFs trade on exchanges and thus can be bought or sold during trading hours at prices prevailing at the time of transaction. In addition, they are bought through and held in brokerage accounts. Other differences are listed in Table 16.

Table 16 Open-ended Mutual Funds vs. Exchange-Traded Funds

	Mutual Fund ^a	ETF ^b
Cost ^c	1.0%–3.0%	0.1%–1.0%
Transaction	End of day	Trading hours
Purchase from	Investment advisor	Brokerage firm (Stock exchange)
Management of fund	Generally active	Generally passive
Disclosure of portfolio holdings	Quarterly at best	Daily
Valuation	Net asset value per unit	Market
Ability to sell short	No	Yes
Minimum purchase	Yes	No
Turnover in fund	Moderate to high	Low to moderate

ETF = exchange-traded funds.

Notes:

^a An open-end mutual fund managed on an active basis.

^b An open-end exchange trade fund managed in a passive basis.

^c Regulatory fees, administrative expenses and management fees. Excludes commissions.

Source: Authors.

1. The Mutual Fund and Exchange-Traded Fund Sectors in ASEAN Economies

a. Individual Investors

204. The mutual fund sector is more developed in the Americas and Europe than in Asia (Table 17). Among ASEAN+2 economies, established mutual fund sectors exist in the PRC, the Republic of Korea, Malaysia, Singapore, and Thailand (Table 18). Total mutual fund assets in ASEAN+2 economies were \$878 billion at the end of 2010, with almost three quarters in the PRC and the Republic of Korea. Singapore has a sizable asset management sector, with total assets under management of just over \$1,000 billion at the end of 2010,

Table 17 Worldwide Total Net Assets of Mutual Funds, 2011

Region	Assets (\$ trillions)	Share
Americas	13.5	56.7%
Europe	7.2	30.3%
Asia & Pacific	2.9	12.2%
Africa	0.1	0.4%
Total	23.8	100.0%

Note: Totals may not add due to rounding.

Source: Investment Company Institute. <http://www.ici.org/research/stats/worldwide>

Table 18 Mutual Fund Assets by Country, 2010

Region	Population (millions)	GDP (\$ billions)	Assets (\$ billions)	Assets per capita (\$)	Assets as share of GDP (%)
PRC ^a	1,355.2	5,708	347.6	256.5	6.1
Indonesia ^b	232.8	707	18.7	80.3	11.4
Korea, Rep.of ^c	48.9	1,028	300.2	6,139.1	29.2
Malaysia ^d	28.0	248	73.1	2,610.7	29.5
Philippines ^e	93.8	200	5.7	60.8	2.9
Singapore ^f	4.8	223	44.9	9,354.2	20.1
Thailand ^g	68.2	319	87.7	1,285.9	27.5
United States	310.2	14,490	11,820.7	38,106.7	81.6
Japan	127.0	5,485	785.5	6,185.0	14.3

PRC = People's Republic of China.

Notes:

^a Asset figures are for June 2011.

^b Asset figures are for 2011.

^c Asset figures include mutual fund and investment trusts.

^d Assets include only unit trusts.

^e Assets are for 2011.

^f Asset figures are for authorized mutual funds and ILP's.

^g Asset figures are for 2011.

Sources: Indonesian Mutual Fund Association; Securities Commission (Malaysia); Philippines Investment Funds Association; Monetary Authority of Singapore; Association of Investment Management Companies; Investment Company Institute; Swiss RE for data on population and gross domestic product.

but the vast majority of these assets are managed on behalf of clients (largely institutional) located outside of the city-state.⁴⁰

205. There are significant differences among countries in the types of mutual funds that investors hold. In Singapore and Malaysia, mutual funds are used primarily to invest in equities, with fixed-income mutual funds making up less than one quarter of total mutual fund assets. In Indonesia, the Philippines and Thailand, however, fixed-income mutual funds account for more than half of total mutual fund assets. In these countries, banks are the dominant distributors; mutual funds and bond funds are actively marketed in bank branches as higher yielding alternatives to savings accounts and term deposits. In the PRC and the Republic of Korea, equities dominate, while bonds account for about a third of assets.
206. Mutual funds are important investors in local currency bonds in ASEAN economies, though with the exception of Thailand, they hold less than 10% of the outstanding local currency bonds (Table 19). The reason for their much greater importance in Thailand is that the mutual fund sector is large and there is a preference for fixed-income funds among Thai investors.

b. Exchange-Traded Funds

207. Assets invested in ETFs are insignificant in ASEAN economies. With the exception of Singapore, there are relatively few ETFs available to investors and most of these are small (Table 20). Part of the reason for the small size of the ETF sector is that they are new, with most launched in the past two or three years. Another reason is that individuals tend to look to banks and insurance agents for investment options, who have little or no incentive to promote ETFs. There are no ETFs in the Philippines because the necessary regulations for them to be offered are not in place.
208. Singapore offers a wide range of ETFs, which to some degree is due to its large and sophisticated asset management sector. Another reason, though, is that Singapore

Table 19 Share of Local Currency Bonds Held by Mutual Funds, 2011

	% of total outstanding
Indonesia ^a	7
Malaysia ^b	7
Philippines ^a	5
Singapore ^a	4
Thailand ^b	20

Notes:

^a Government bonds only.

^b Total bonds.

Sources: AsianBondsOnline; <http://asianbondsonline.adb.org/> accessed multiple dates December 2011–January 2013 Authors' estimates.

⁴⁰ Singapore's resident investor base in mutual funds is larger than Table 3 suggests. Under certain circumstances, Singapore permits funds established and custodied in a foreign jurisdiction to be sold in Singapore. These are known as "recognized" mutual funds. Data on holdings by Singapore residents in these funds is not collected. A significant number of investors from neighboring Indonesia holds funds in Singapore.

Table 20 Exchange-Traded Funds by Country, December 2011

	Bond ETFs (Number) ^a	Other ETFs (Number)	Total ETFs (Number)	Total ETF Assets (\$ billion)
Indonesia	na	na	several	na
Malaysia (May 2012)	1	4	5	0.3
Philippines ^b	0	0	0	0
Singapore ^c	17	74	91	3.1
Thailand ^d	1	8	9	0.3
Total	19	86	105	3.7

ETF = exchange-traded funds.

Notes:

^a Includes money-market ETFs.

^b The Asian Bond Fund (ABF) Philippine Bond Index Fund is structured as a unit investment trust fund.

^c Includes Singapore-based assets in cross-listed ETFs.

^d Includes the ABF Thailand Bond Index Fund.

Sources: Stock exchanges.

Table 21 Asian Bond Fund Country Bond Index Funds, 31 July 2012

Fund	Legal Structure	Assets (\$ million)
ABF China Bond Index Fund	Unit Trust	398
ABF Indonesia Bond Index Fund (March 31, 2012)	ETF	63
ABF Korea Index Securities Investment Trust – Bond	Investment trust	593
ABF Malaysia Bond Fund	ETF	191
ABF Philippines Bond Index Fund	Unit Trust	131
ABF Singapore Bond Index Fund	ETF	388
ABF Thailand Bond Index Fund	ETF	184

ABF = Asian Bond Fund; ETF = exchange-traded funds.

Source: ABF Fund annual reports, Bloomberg, HSBC Institutional Fund Services.

allows ETFs incorporated in other jurisdictions to be cross-listed on the Stock Exchange of Singapore. Thailand does not allow cross-listings and the Philippines does not yet have ETF regulations in place.

209. As part of the ABF 2 initiative, country-specific bond index ETFs were launched in several ASEAN+2 markets. The ABF bond index ETFs are the largest (and often the only) local currency fixed-income ETF available in ASEAN+2 markets. However, in the Republic of Korea and the Philippines, the funds for ABF are structured as unit trusts, not ETFs (Table 21). In the case of the Philippines, as noted above, this is because the necessary rules to establish an ETF are not in place. In the Republic of Korea, the AFB fund is an investment trust managed by Samsung Asset Management.
210. Due to the small size of the overall ETF sector in ASEAN economies, ETFs are not significant investors in local currency bond markets. While ETFs have been growing more quickly than other managed investment products, they are unlikely to become significant investors in local currency bonds in the near term. This is not only due to the fact that current growth rates are off a small base, but most of the growth is taking place in equity and resource ETFs, where gold ETFs in particular have been very popular.

2. Promoting the Mutual Fund and Exchange-Traded Fund Sectors

211. The growing importance of the mutual fund sector is a global phenomenon, though there are considerable differences across countries (and regions) in terms of the sector's pace and level of development, even after adjusting for per capita income levels and the size of the investor base. This section focuses on factors and policies to encourage the development of the mutual funds sector in ASEAN economies.
212. Because ETFs are a relatively recent development and are not yet widely used in most ASEAN economies, we do not address them directly here. However, mutual funds and ETFs are close substitutes, and policies designed to promote the mutual fund sector will typically encourage the development of the ETF sector as well. This close substitutability also means that mutual funds and ETFs are direct competitors: The growth of ETFs will likely come at the expense of mutual funds, especially as differences between them narrow, which has been the case in many developed markets with the launch of actively managed ETFs and the extension of ETFs into a broader range of asset classes (e.g., commodities and real estate) and the use of more investment strategies (hedging, short-selling and leverage). Generally better after-fee performance relative to actively managed mutual funds has also sparked interest in ETFs as an alternative to mutual funds.

a. Factors Promoting the Development of the Mutual Fund Sector

213. Several factors contribute to the development of the mutual fund sector.⁴¹ Conceptually, they can be divided into demand factors and supply factors, though in practice some are both. Moreover, some of these factors promote the use of all financial products, whereas others are linked more closely to the mutual funds. The key factors driving the growth of the mutual fund sector in any particular country are:
- (i) **Wealth and income.** As incomes rise (as measured by GDP per capita) and investor wealth and education improve, the mutual fund industry tends to increase in size.
 - (ii) **Mandated retirement savings plans.** Mandated retirement savings plans can be a positive or negative factor for the growth of the mutual fund sector. Defined benefit plans and single-option defined contribution plans reduce the demand for mutual funds as investable assets are placed in these plans, which as institutional investors typically allocate only a minor portion of their total portfolio to local mutual funds. Defined contribution plans that permit members to choose how their funds are invested can be positive for the growth of the mutual fund sector as long as mutual funds are eligible investments.
 - (iii) **Tax benefits for retirement savings.** Many countries encourage saving for retirement with tax policies that allow contributions to retirement savings plans to be deducted from taxable income and/or for income generated from investments held in these plans to be tax-exempt. These incentives encourage savings, which, in turn, increase the demand for mutual funds.

⁴¹ See Fernando, Deepthi, Leora Klapper, Victoria Sulla, and Dimitri Vittas. 2003. The Growth of Mutual Funds. *World Bank Policy Research Working Paper*, No. 3055. Washington: World Bank; Khorana, Ajay, Henri Servaes and Peter Tufano. 2005. Explaining the Size of the Mutual Fund Industry Around the World. *Journal of Financial Economics*. Vol. 78. Rochester: *Journal of Financial Economics*. pp. 145–85.

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- (iv) **Fees, expenses and commissions.** Mutual funds are one of many options available to individual investors. Lower fund-administrative expenses, investment management fees and sales commissions make mutual funds more attractive to investors relative to other investment options.
 - (v) **Depth of local capital markets.** In most countries, the most popular mutual funds tend to be those that invest solely or primarily in local debt and equity securities. Mutual fund sectors tend to be larger in those countries with more developed capital markets because they allow mutual funds to offer more diversified portfolios, mutual funds tend to be subject to fewer liquidity constraints, and fund companies are able to offer a broader selection of funds.
 - (vi) **Availability of substitutes.** Bank deposits are a direct substitute for money-market and short-term bond funds. As the spread between the yield on short-term debt securities and bank deposits increase, so does the demand for mutual funds, although the presence of generous deposit insurance schemes may lessen the attraction of higher yields. Investment-linked insurance products are also a substitute for mutual funds. However, they can also be compliments where the “link” is to mutual funds.
 - (vii) **Industry age.** The mutual fund industry tends to be larger in countries where the sector has a longer history. Familiarity with and confidence in mutual fund investments tend to increase with time.
 - (viii) **Regulations.** A strong legal and regulatory system that protects shareholder interests is positively linked to the size of the mutual fund sector. In particular, clear regulations for launching funds, strong disclosure requirements for fees and performance, and measures to handle conflicts of interest between the fund management company and fund shareholders are associated with larger mutual fund sectors.
 - (ix) **Barriers to entry.** Restrictions on entry and cumbersome and expensive licensing procedures to launch a fund are linked with smaller mutual fund sectors.

- 214. Among other specific factors that the studies identify as important are: the degree of market orientation versus bank-based orientation of the financial system (positive), indicators of country risk (negative), market liquidity (positive), and the ratio of defined contribution to defined benefit pension plans (positive). The Morningstar paper (Alpert and Rekenhaller 2011) also attach importance to the variety and openness of the fund distribution architecture; a wider variety of institutions offering sales platforms, and multiple offerings on each platform constitute a better distribution environment.
- 215. Khorana et al. (2005, p. 32) also sounds a cautionary note: “[P]ushing funds in economies where development is at lower levels may not yield quick results.” The paper notes that from the viewpoint of a developing country, mutual funds are advanced financial products. They require sound legal underpinnings, ongoing enforcement of regulation, and reliable financial infrastructure.

b. Actions Taken to Promote the Mutual Fund Sector in ASEAN

- 216. ASEAN governments have promoted the mutual fund sector with five types of initiatives: (i) mandatory participation in retirement savings plans that permit the use of mutual funds as an investment option; (ii) encouraging employers to offer employees retirement savings plans that permit the use of mutual funds as an investment option; (iii) tax

incentives to encourage retirement savings generally or through mutual funds in particular; (iv) enacting legislation that creates an efficient regulatory structure with comprehensive disclosure requirements and measures to promote investor confidence in the sector, with requirements such as the use of mark-to-market pricing and independent custodians, auditors and pricing authorities; and (v) easing barriers to entry for asset management firms (including foreign companies) to offer mutual funds.

217. The remainder of this section lists examples of the kinds of policies selected ASEAN governments have used to promote the development of their mutual fund sector. It is important to note that a number of these policies are designed to achieve broader policy objectives—such as ensuring adequate income in retirement—and that the benefits these policies confer on the mutual fund sector is largely ancillary.
218. Examples of mandatory participation in retirement savings plans in ASEAN economies include:
- (i) **Malaysia.** EPF participants may invest a portion of their balances in approved investments which include mutual funds.
 - (ii) **Singapore.** The CPF permits a portion of members' balances to be placed in the CPF Investment Scheme, which includes mutual funds and investment-linked insurance products as eligible investments.
219. An example of policy to encourage employers to offer retirement savings plans in ASEAN economies is that of Thailand where provident funds are investor-choice defined contribution plans offered by Thai corporations to their employees. They are regulated and operate differently from mutual funds but, from a functional perspective, they are essentially the same.
220. Examples of tax incentives to encourage retirement savings in ASEAN economies include:
- (i) **Philippines.** The Personal Equity Retirement Account Act was passed in 2008. The Act establishes a national defined contribution plan for Filipinos not covered by the Government Service Insurance System and the Social Security System. Contributions receive a 5% tax credit against taxes payable (up to certain limits), and investment earnings and withdrawals—providing they are held until age 55—are tax-exempt. Mutual funds, unit investment trust funds and ETFs are all eligible investments. The plan is not yet operational due to technical issues.
 - (ii) **Singapore.** Singapore residents are largely exempt from tax on all forms of investment income.
 - (iii) **Thailand.** All investment income earned in provident funds is free of tax. Withdrawals from provident funds are also free of tax. Employer-matching contributions to provident funds are deductible from corporate income tax. In addition to provident funds, Thailand provides tax benefits for contributions to Retirement Mutual Funds and Long-Term Equity Funds.
221. Examples of efforts to introduce a more efficient and effective regulatory regime in ASEAN economies include:
- (i) **Philippines.** The Securities and Exchange Commission is responsible for regulating mutual funds and the BSP is responsible for regulating unit investment trust funds

(UITFs). A new Collective Investment Schemes Law, which would modernize and unify the regulatory structure, was first proposed almost a decade ago but has not been passed by the Philippine Congress. In 2004, the BSP introduced new regulations that eliminated Common Trust Funds, which operated under arcane rules, and replaced them with UITFs.

- (ii) **Singapore.** MAS has sole responsibility for regulating the mutual fund sector and regulations have kept pace with industry needs and global best practices. The regulatory system is generally well regarded by mutual fund providers and investors. New investor protection rules, which require mutual fund providers to ensure that customers have the relevant knowledge and experience to understand the risks and features of more complex investment products, came into force at the beginning of 2012.
- (iii) **Indonesia.** The impending combination of financial sector regulation under one agency has the potential to rationalize fund regulation.
- (iv) **Republic of Korea.** Both regulators and market participants expressed satisfaction with the regulatory framework and operations of the fund sector under the Financial Services Commission and the self-regulatory organization, Korea Financial Investment Association.

222. An example of efforts to ease barriers to entry in ASEAN economies includes the case of Singapore. Market participants reported that launching new mutual funds in Singapore is relatively easy. In addition, Singapore encourages foreign asset-management companies to establish operations in the city-state and permits foreign incorporated and custodied mutual funds from jurisdictions with comparable legislation to be sold to residents.

3. Recommendations

223. Specific actions required to promote the fund industry in ASEAN+2 countries vary depending on fund industry's situation and the regulatory environment. However, there are some common themes for the region which are discussed below. No recommendations have been made for ETFs. They are well advanced in Singapore and beginning to be listed in some other countries. There are few barriers to the introduction of these products in most ASEAN countries, and as investors understand them, they will no doubt grow in importance.
224. **Promotion of independent advisory services and distribution channels.** Most countries have bank-dominated fund distribution channels, which is understandable and appropriate, given the large bank physical footprint and ongoing investor relationships with them. Some banks offer "open architecture"—that is, they sell funds from multiple providers; others restrict or steer clients to in-house products. They may also have a bias towards deposit-based products. Licensing of financial advisors and fund distributors should accommodate qualified non-bank and independent advisory services so that investors can have the benefit of independent advice. Advisory services usually stress the benefits of diversification and a mix of fund types, including fixed income. For Internet-enabled investors, ways can be found to offer fund supermarkets and electronic platforms with multiple fund providers.
225. **Promotion of long-term investing.** While we have found that many investors are conservative, preferring bank deposits and principal guaranteed products, in several countries there is another investor segment that trades mutual funds like equities, following the latest theme. The promotion of advisory services (above) should help form a middle ground which follows a more structured approach, combining funds based on

a longer-term, retirement-fund oriented approach. This approach should lessen volatility in the market. The establishment of a third retirement pillar of individual accounts in most countries will be a related enabling factor. A specific proposal authorities may wish to consider is to limit front-end load fees on mutual funds. These fees reward mutual fund salespeople when funds are switched frequently. Their replacement with trailer fees (if necessary) or performance fees would better align the interests of the advisor and the investor.

226. **Distinguish between accredited (exempt) investors and retail investors.** In some ASEAN countries, institutional investors use mutual funds for parts of their portfolios. Institutional investors, being larger and more sophisticated, need less mandated disclosure, but will demand a different more in-depth style of sales coverage and analysis. Retail investors need a higher degree of investor protection and disclosure. The lack of distinction between the two reflects in part the youthful stage of the industry (10–15 years in many) and the low level of contracting out by institutions. A clear distinction between the two will focus regulation on the separate needs of the retail and the institutional sectors. Taxation should also be differentiated—at present, it seems that fund taxes (Indonesia) and withholding taxes (several jurisdictions) do not distinguish between the two.

VI. SUMMARY OF RECOMMENDATIONS

227. The experience with bond market development in ASEAN countries suggest a number of policy initiatives that can contribute to the expansion of the investor base for local currency bonds. In considering the options, it is important to recognize that reducing the concentration of the investor base may be at least as important as expanding its size. The recommendations provided earlier in this report are summarized below.

A. Preconditions

228. ASEAN countries with the best-developed bond markets have already invested significant resources to put the preconditions in place (see paragraph 25). These include:
- (i) A modern legal framework including company and insolvency laws.
 - (ii) A disclosure-based regime for securities regulation and market conduct oversight meeting the standards of the IOSCO Principles and Objectives of Securities Regulation.
 - (iii) A government debt program with regularly scheduled benchmark-sized issues over a range of tenors, with provision for re-opening less liquid issues.
 - (iv) The infrastructure to provide DVP in the settlement of securities transactions and an LVTs capable of providing final irrevocable payment.
 - (v) A mechanism to collect and disseminate information on bond trading and bond pricing to facilitate development of the secondary market and providing the data required to mark debt portfolios to market prices.
229. The ongoing work of the ABMI has identified the few remaining barriers in the larger ASEAN markets. For countries at an earlier stage of development, addressing the preconditions noted above and the obstacles identified by the ABMI Group of Experts should be part of national bond-market development initiatives.⁴²

B. Addressing Remaining Impediments to Bond Market Development

230. Policy actions that would contribute to bond market development more generally, and specifically the expansion of the investor base include:
- (i) **Issuer and investor education.** There is a broad need for capital-markets education throughout ASEAN countries (see paragraphs 58 and 120).

⁴² ABMI Group of Experts. 2010. Market Assessments. In Appendix 3 of *Barriers to Cross-Border Investment and Settlement in ASEAN+3 Bond Markets*. Manila: Asian Development Bank.

- (ii) **Building expertise and human capital.** Even in some better-developed ASEAN markets there is a shallow pool of expertise, which can be addressed through a range of capacity building initiatives (see paragraphs 59–61).
- (iii) **Disclosure-based regulatory regimes should be introduced** where these have not already replaced merit-based regimes (see paragraphs 62–63).
- (iv) **Performance of government securities dealers.** Improving the performance of government securities dealers, including ensuring that they contribute to market liquidity, can contribute to overall market development. (see paragraphs 30–39, and 64).
- (v) **Developing market-making and risk-management tools.** These include securities lending, the repo market, and interest rate and currency derivatives (see paragraph 65).
- (vi) **Considering the implications for bond market development of tax policies.** Although often considered in the context of foreign investors, withholding taxes, income and capital gains tax, and tax incentives for varying types of instruments and savings vehicle affect bond market development generally and the investor base specifically (see paragraphs 25, 66–67, 118, and 121).

C. Indirect Measures to Increase Investor Base

231. Market participants in many ASEAN countries noted that they would hold additional local currency bonds if the supply were greater. Bringing new issuers to market would increase the supply of bonds. Some measures include:
- (i) Government-related entities can play a leadership role in corporate bond issuance (see paragraph 43).
 - (ii) Bond financing can be used to support important policy objectives such as building infrastructure and increasing the stock of housing (see paragraph 44).
 - (iii) Credit enhancements can bring smaller issuers, issuers without a track record, and lower rates issuers to market (see paragraph 45).

D. Expanding the Domestic Investor Base

232. Many of the recommendations to expand the investor base should be considered for policy reasons other than promotion of local currency bond markets. Expanding participation in existing provident and pension funds, and promoting the growth of new pension plans and individual retirement savings plan is important to provide income security for ageing populations. A beneficial byproduct will be the development of new pools of domestic capital that can become important investors in the local currency bond markets. Initiatives to expand the domestic investor base include:
- (i) The legal and regulatory framework for non-bank financial institutions, particularly insurance companies and pension plans, should be put in place. Other measures to promote development of the non-bank sector are beyond the scope of this report,

but it is clear that more developed bond markets are associated with larger non-bank financial sectors (see paragraphs 96–103).

- (ii) Adopting the prudent-person investment rule for insurance companies and pension plans would encourage holding a wider range of instruments, including within an appropriate investment strategy, high-yield bonds and local currency bonds of regional countries (see paragraphs 105–106).
- (iii) Adopting more permissive investment rules for national and government-sector pension plans, based on the prudent-person approach, could help to reduce the dominance of these very large funds by encouraging a more diversified portfolio, including an appropriate high-yield mandate and local currency bonds of regional countries (see paragraphs 107–108).
- (iv) Training for boards of directors (or trustees) needs to accompany the adoption of more permissive investment rules and the adoption of the prudent person approach (see paragraph 109).
- (v) Movement to full (or at least partial) funding of pension plans rather than relying on the pay-as-you-go approach creates additional pools of domestic capital, potentially both expanding and diversifying the investor base (see paragraph 110).
- (vi) Increasing the investment options for government plans, for example by allowing individuals to withdraw a portion of their accounts for investment in approved investments, can contribute to the development of the funds management sector and introduce individuals to new classes of investment (see paragraph 111).
- (vii) Increasing the use of external managers by government plans can mitigate the market dominance of large provident funds, stimulate the development of the funds management sector, and promote bond market development through introduction of new mandates, for example, a high-yield bond mandate, which could stimulate lower-rated issuance (see paragraph 112).
- (viii) Formation of new pensions plans and private retirement savings accounts will increase the number of domestic investors in local currency bonds (see paragraph 113).
- (ix) The legal and regulatory framework for mutual funds should be put in place. Supplemented by the development of a professional advisory sector, this can help build an investment alternative to bank deposits which will indirectly channel retail savings to the bond market (see paragraph 114).
- (x) Removing restrictions on mutual fund investment in low-rated or unrated securities, replacing merit review with full disclosure of risks, can spur the development of a high-yield market (see paragraph 115).
- (xi) Government-related entities such as national provident funds and SWFs could stimulate the demand for local-currency debt securities by increasing their use of external managers and adding niche debt market mandates, such as high-yield or regional local currency bonds (see paragraphs 117–118).
- (xii) Establishing a licensing and oversight regime for independent financial advisors and prohibiting tied selling are two measures that can contribute to the development

of non-bank distribution channels, helping to diversify the investor base (see paragraph 119).

- (xiii) Prefunding of long-term liabilities (in addition to retirement savings), for example environmental and nuclear remediation funds, would create additional domestic pools of capital (see paragraph 122).

E. Foreign Institutional Investors

233. If Asian local currency bonds were considered as a distinct asset class by institutional investors in the region and more broadly, a larger number of foreign institutional investors would seek to hold ASEAN local currency bonds. A larger and more diverse group of investors could mitigate some of the risks associated with foreign portfolio investments. Other specific measures can be considered to attract additional foreign investor interest in ASEAN local currency bonds.

- (i) A study should be commissioned to review the merits of treating Asian local currency bonds as a distinct asset class (see paragraph 151).
- (ii) The ABF Pan Asia Bond Fund Index (and eight country funds) should continue to be supported. Consideration should be given to making the fund more attractive by adopting one of the more widely used benchmarks, listing the fund on a larger number of Asian exchanges and adopting a graduated fee schedule providing lower fees on larger mandates (see paragraph 152).
- (iii) Country officials should monitor their country's inclusion in global bond indexes, understand the inclusion criteria, and take these into account when developing policy and in developing government debt management programs, for example, by focusing on large-sized benchmark issues (see paragraph 159).
- (iv) Reduce or eliminate withholding taxes, subject to other policy considerations (see paragraph 168).
- (v) Reduce or eliminate foreign exchange restrictions, streamline or eliminate foreign exchange administration requirements (see paragraphs 169–170).
- (vi) Allow foreign investors to use omnibus custodial accounts (see paragraph 171).
- (vii) Enabling bond transactions to be settled through Euroclear (see paragraph 172).
- (viii) Undertake additional academic and practitioner research on the long term effect of capital controls on local currency bond market development (see paragraph 181).

F. Individual Investors, Mutual Funds and Exchange-Traded Funds

234. Individual investors are more likely to hold bonds indirectly through mutual funds, ETFs, life insurance products, or pension funds. Nevertheless, there are options open to government and corporate issuers to promote retail investment in local currency bonds.

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- (i) Retail savings bond programs (see paragraph 193).
 - (ii) Government or corporate issuers can require that a tranche of each or selected bond issues be reserved for retail subscription. Building on the experience of Thai corporates, issuers in other countries could cultivate retail followings (see paragraphs 194–195).

235. In addition to the measures noted above in the discussion of domestic institutional investors, there are several actions that could contribute to greater investment by individuals in local currency bonds through mutual funds or ETFs.

- (i) **Promotion of long term investing.** Authorities may consider limiting front-end load fees on mutual funds, which reward salespeople for frequent switching of accounts. Bond funds, which may be less volatile than other funds, would benefit from a longer term perspective (see paragraph 225).
- (ii) **Distinguish between accredited (exempt) and retail investors.** Retail investors require a higher degree of investor protection and disclosure, suggesting differing requirements for funds sold to institutional investors and those sold to retail investors (see paragraph 226).

APPENDIX

BOND MARKET INDICES

Several indices produced by a handful of index providers are available to measure the performance of both hard and local currency emerging markets debt (EMD) portfolios. The key differences among them are due to differences in their inclusion criteria:

- (a) Country inclusion criteria
 - (i) Definition of “emerging market”
 - (ii) Currency convertibility requirements
- (b) Currency denomination of issues inclusion requirements
- (c) Inclusion of governments, quasi-governments and corporate issues
- (d) Market development requirements
 - (i) Bond settlement and clearing
 - (ii) Market liquidity
 - (iii) Pricing transparency
- (e) Issuer requirements
 - (i) Minimum issuer size
 - (ii) Minimum term to maturity

There can also be significant differences in how constituent components are weighted. Most indexes are market weighted, which means that a bond’s (and by extension a country’s) weight in an index is determined by the market value (i.e., capitalization) of each issue. This can lead at times to a highly concentrated index, with the debt instruments of only a few countries accounting for the lion’s share of the total. As a result, most of these indexes offer capped/constrained versions, which typically limit the maximum weighting of debt instruments of a single country to be no more than 10% of the index. These versions are generally signified with the words “constrained,” “capped” or “diversified” in the title. Other weighting formulas are “equal weighting” and “GDP weighting.”

JP Morgan produces the most widely used EMD indices. Other EMD index providers include Barclays Capital, Bank of America/Merrill Lynch, HSBC, and Markit. EMD indices can be divided into three categories: hard currency indices, local currency indices and corporate bond indices. We have also provided a list of regional Asian bond indices. This appendix discusses the most widely used indexes but is by no means an exhaustive list.

Emerging Market Debt (EMD) Hard Currency Indices

JP Morgan Emerging Markets Bond Index Plus (JPM EMBI+): The JPM EMBI+ has been available since 1995 (with historical data available from 31 December 1993). It is a measure of US dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities. (Only Brady bonds were included in the original EMBI.) To be included, countries must be rated BBB-/Baa3 or less by both S&P and Moody’s, and an

individual bond must have a minimum of \$500 million of face value outstanding, have at least 2.5 years to maturity on inclusion in the index, and pass a variety of liquidity tests. In addition, instruments included in the index must be able to settle internationally, either through Euroclear or another institution domiciled outside the issuing country, and bid/offer prices must be available daily and on a timely basis from an interdealer broker or JP Morgan. As of 31 December 2011, there were 17 countries in the index with a market value of \$279 billion. Two were ASEAN countries and the percentage weight of these countries were: the Philippines (9.8%) and Indonesia (7.1%).

JP Morgan Emerging Markets Bond Index Global (JPM EMBI Global): The JPM EMBI Global was launched in 1999 (with historical data available from 31 December 1993). The inclusion criteria differ from the JPM EMBI+ in two important respects: (i) Countries eligible for inclusion are based on World Bank-defined per capita income brackets and debt-restructuring history; and (ii) less liquid instruments are acceptable. As of 31 March 2011, there were 44 countries in the index with a market value of about \$457 billion. Five were ASEAN+2 countries and the percentage weight of these countries were: the Philippines (6.7%), Indonesia (6.6%), the PRC (1.6%), Malaysia (1.6%), and Viet Nam (0.4%). A version with maximum country weights is also available (JPM EMBIG Diversified).

Barclays Capital Global Emerging Markets Bond Index: The index is a measure of US dollar-denominated bonds issued by governments, agencies and corporations with fixed- and floating-rate coupon structures. Instruments must have a face value of at least \$500 million and a maturity of at least one year. Corporate issuers must have at least \$1 billion in aggregate of bonds outstanding. Countries must have a maximum sovereign rating of BBB+ to be included in the index. As of 31 March 2011, there were 29 countries in the index, including the Philippines and Viet Nam.

Emerging Market Debt (EMD) Local Currency Indices

JP Morgan produces six local-currency, government-only emerging market bond indexes (plus one local currency money-market index). The six local currency bond indexes differ in terms of breadth and country constraints. The six indexes are:

- (i) JPM GBI EM
- (ii) JPM GBI EM Diversified
- (iii) JPM GBI EM Global
- (iv) JPM GBI EM Global Diversified
- (v) JPM GBI EM Broad
- (vi) JPM GBI EM Broad Diversified

The “global” versions have less strict eligibility criteria and thus contain more securities and have higher market values. The “broad” versions are even less restrictive. The “diversified” versions restrict the maximum country weight to 10%. By far the most widely used local currency EMD index is the JPM GBI EM Global Diversified, which is discussed below.

JP Morgan Government Bond Index-Emerging Markets Global Diversified (JPM GBI-EM Global Diversified): The JPM GBI-EM Global Diversified Index was launched in 2005 (with historical data available from 31 December 2001) and is by far the most widely used benchmark for local currency EMD mandates. As of 31 December 2011, there were 14 countries in the index with a market value of \$826 billion. The percentage weight of the four East Asia countries in the index at the end of 2011 was: Malaysia (10%), Indonesia (10%), Thailand (10%), and the Philippines (0.5%).

JP Morgan Emerging Local Markets Index Plus (JPM ELMI+): The JPM ELMI+ was introduced in 1996 and is composed of local-currency money-market instruments. Country weights are based on a trade-weighted allocation, with a maximum weight of 10% for countries with convertible currencies and 2% for countries with non-convertible currencies. As of 31 December 2011, there were 23 countries in the index, including eight from ASEAN+2. The percentage weight of selected countries in the index at the end of 2011 was: Singapore (10.0%), Thailand (2.0%), the Philippines (2.0%), Malaysia (2.0%), Indonesia (2.0%), and the PRC (2.0%).

Emerging Market Corporate Bond Indices

JP Morgan produces four hard-currency corporate bond indexes:

- (i) JPM CEMBI
- (ii) JPM CEMBI Diversified
- (iii) JPM CEMBI Broad
- (iv) JPM CEMBI Broad Diversified

The “broad” versions have wider eligibility requirements (e.g., smaller issues sizes, more eligible instrument types) and thus contain a larger number of securities and have a higher market value. The “diversified versions” limit the maximum country weight.

JP Morgan Corporate Emerging Markets Bond Index (CEMBI): The CEMBI was launched in 2007 (with historical data available from December 31, 2001). The index includes US denominated corporate bonds from emerging markets. Eligible instruments must have a face value of at least \$500 million and a maturity exceeding five years. For companies with many issues outstanding, the two largest issues will be used. At December 31, 2011, there were 30 countries in the Index with a market capitalization of \$206 billion. Ten were ASEAN+2 countries and the percentage Index weight for a selection of them are: the PRC (7.0%), the Republic of Korea (6.7%), Singapore (2.8%), Indonesia (1.1%), Thailand (1.0%), Malaysia (0.3%), and the Philippines (0.2%).

BoA Merrill Lynch Emerging Markets Corporate Plus Index (EMCB): The EMCB was launched in 2011 (with historical data available back to back to 31 December 1998). The index includes US dollar- and euro-denominated corporate bonds from emerging markets. Quasi-government issues are also eligible. Investment grade bonds must have a minimum face value of \$250 million while those below investment grade must have a minimum face value of \$100 million. Bonds must have a fixed coupon and a maturity exceeding one year. As of 14 February 2011, there were 47 countries and 875 issues in the index, with a market value of \$601.2 billion. A more liquid version (US dollars only and higher minimum-issue sizes) is also available (BoA/ML US EM Liquid Corporate Plus Index).

Asian Regional Bond Indices – Hard Currencies

HSBC Asian USD Bond Index (ADBI): The ADBI has been available since 2002 (with historical data available from 31 December 1996). The index includes US dollar-denominated fixed-rate, straight bonds satisfying a set of size and liquidity criteria. The country weights as of 10 December 2010 were: the Republic of Korea (25.5%), Malaysia (8.0%), Hong Kong, China (15.7%), the PRC (7.6%), the Philippines (15.0%), Singapore (5.3%), Thailand (1.6%), Indonesia (12.1%), India (6.0%), Pakistan (0.7%), Sri Lanka (1.0%), and Viet Nam (0.9%).

JP Morgan Asia Credit Index (JACI): The JACI was first launched in 1999, with enhancements made in 2006. The index consists of liquid US dollar-denominated debt instruments in the Asia

ex-Japan region. Instruments must have a minimum face value of \$150 million and a minimum time to maturity of one year. As of 31 December 2011, there were 14 countries in the index with a market capitalization of \$284 billion. The percentage weight of selected countries in the index was: the Republic of Korea (22.8%), the Philippines (13.1%), the PRC (12.7%), Indonesia (12.7%), Singapore (6.8%), Malaysia (4.6%), Thailand (2.0%), and Viet Nam (0.6%).

Asian Regional Bond Indices – Local Currencies

HSBC Asian Local Bond Index (ALBI): The ALBI has been available since the end of 2000 and tracks the total return performance of a portfolio local currency government and corporate bonds in Asia ex-Japan. Non-government bonds account for about one-third of the index. The index is weighted composite of 10 individual country indexes. The weightings of individual bonds in each country index are determined by their market capitalization. The country weights in the ALBI are determined by the size and market capitalization of each country index, liquidity in secondary markets, accessibility to foreign investors, and the development of infrastructure to support fixed-income trading. As of 2 August 2010, the weightings were as follows: the PRC (9.7%), Hong Kong, China (14.0%), India (7.1%), the Republic of Korea (10.6%), Malaysia (16.0%), the Philippines (8.6%), Singapore (3.6%), Taipei, China (14.4%), Thailand (8.2%), and Indonesia (7.8%).

Markit iBoxx ABF Pan-Asia Index: The ABF Pan-Asia Index tracks the total return performance of a portfolio of local currency government and quasi-government bonds in eight Asian countries. The market weights are based on four macro factors: market size, turnover, sovereign debt rating and market functionality, an indicator of the investment climate in each market. As of 31 October 2011, the weightings were as follows: the PRC (21.3%), Hong Kong, China (19.4%), Indonesia (5.7%), the Republic of Korea (14.9%), Malaysia (10.2%), the Philippines (5.3%), Singapore (14.1%), and Thailand (8.9%).

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Broadening the Investor Base for Local Currency Bonds in ASEAN+2 Countries

The Asian Development Bank has been working closely with 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 promote the development of local currency bond markets in the region through the Asian Bond Markets Initiative (ABMI). ABMI was launched in 2002 to help channel regional savings toward long-term investments within the region. ABMI was established with the goal of improving the resilience of the region's financial systems by helping reduce the double mismatches (maturity and currency) of companies' investment financing.

Since the launch of ABMI, local currency bond markets in the region have grown rapidly in recent decades in terms of size and diversity of issuers. This study was undertaken under ABMI and funded by the Government of Japan. It focuses on measures to expand the investor base for local currency bonds in ASEAN, the PRC, and the Republic of Korea, with the goal of generating greater variety in investment objectives and a wider range of investment strategies.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.7 billion people who live on less than \$2 a day, with 828 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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