Harmonization of Bond Market Rules and Regulations in Selected APEC Economies

Ismail Dalla

Asian Development Bank
November 2003
The Asian Development Bank (ADB) carried out this study on Harmonization of Bond Market Rules and Regulations in Selected APEC Economies at the request of the Chairman of the APEC Finance Ministers’ Technical Working Group in December 2002.

The main objective of the study is to recommend ways to accelerate development of regional bond markets to increase sources of long-term investment funds for the private and public sectors. During the 1997 Asian financial crisis, the mismatch in maturity and currency was a key factor in worsening the crisis. Although the Asian region has substantially recovered, the absence of long-term sources of financing in local currencies could make the region vulnerable to future financial shocks.

ADB considers the stability of the financial system crucial for the long-term prosperity of the region and supports initiatives to further develop domestic bond markets. Ismail Dalla, Principal Financial Sector Specialist, prepared this report when he was a consultant, under the overall guidance of Asavin Chintakananda, Senior Advisor, Regional and Sustainable Development Department. A regional technical assistance (RETA 5763) for APEC Collaborative Initiatives supported the report.

ADB would like to express its appreciation to various individuals for their time and valuable comments. In particular, we would like to thank Olarn Chaipravat, adviser to the Deputy Prime Minister of Thailand; Thurgah Govidasamy of the Ministry of Finance of Malaysia; and staff of the Fiscal Policy Research Institute in Thailand, Bank Negara Malaysia, and the Securities Commission (Malaysia).

J.P.M. van Heeswijk
Director General
Regional and Sustainable Development Department
Contents

Foreword ................................................................. iii
Executive Summary ............................................... x

1 Introduction ............................................................ 1
2 Recent Macroeconomic Developments .................. 5
3 East Asian Bond Markets and the
   Institutional Investor Base .................................. 7
   Institutional Investor Base .................................. 9
   Institutional Assets by Type ............................... 10
   Constraints ....................................................... 13
   The Bond Market by Country ......................... 13
4 Harmonization of Bond Market Rules
   and Regulations ................................................ 39
   Legal and Regulatory Framework ................... 39
   Market Infrastructure ........................................ 42
   Audit and Accounting Standards .................... 45
   Taxation ............................................................ 45
   Foreign Exchange Regulations ....................... 46
5 Conclusions and Recommendations .................... 47

Annex: Bond Markets of Selected East Asian Economies
   People’s Republic of China ................................. 51
   Hong Kong, China ............................................. 53
   Indonesia ......................................................... 59
   Republic of Korea ............................................ 65
   Malaysia .......................................................... 79
   Philippines ....................................................... 89
   Singapore ........................................................ 97
   Thailand .......................................................... 109

Bibliography and Web Sites .................................... 117
Tables

Table 2.1: Growth Rate of GDP .................................................. 5
Table 2.2: Gross Domestic Savings ............................................. 6
Table 2.3: Gross International Reserves ................................... 6
Table 3.1: Financial Sector Profile, 2002 ................................. 7
Table 3.2: East Asian Institutional Investor Base .................... 9
Table A.1: Withholding Tax Rates, Indonesia ......................... 62
Table A.2: Interest Income and Capital Gains Tax, Republic of Korea .................................................. 77
Table A.3: Total Outstanding Debt Securities/ Instruments, Malaysia, 2001–2002 ........................................ 80
Table A.4: National Government Outstanding Public Debt, Philippines .................................................. 89

Figures

Figure 3.1: Composition of the East Asian Bond Market .................................................. 8
Figure 3.2: Institutional Assets by Country, East Asia .......... 10
Figure 3.3: Institutional Assets by Type, East Asia ................ 11
Figure 3.4: Mutual Fund Assets, East Asia ......................... 12
Figure 3.5: Pension Fund Assets, East Asia ......................... 12
Figure 3.6: Life Insurance Assets, East Asia ......................... 12
Figure A.1: Domestic Debt Securities Outstanding, PRC .................................................. 51
Figure A.2: Outstanding Bank Loans, Stock Market Capitalization, and Bonds in Hong Kong, China ....... 54
Figure A.3: Outstanding Bonds by Type of Issuer, Hong Kong, China ........................................ 55
Figure A.4: New Debt Issuance in the Private Sector, Hong Kong, China ........................................ 57
Figure A.5: Outstanding Value Among Traded Fixed-income Instruments, Indonesia ........................................ 59
Figure A.6: Total Value of Commercial Bank Loans, Equities, and Domestic Bonds, Republic of Korea .......... 67
Figure A.7: Outstanding Amount of Bonds, Republic of Korea ........................................................................ 68
Figure A.8: Outstanding Amount of Bonds by Type of Issuer as of the End of 2002, Republic of Korea ............ 69
Figure A.9: Major Bond Investors as of the End of 2002, Republic of Korea ..................................................... 74
Figure A.10: Growth of National Pension Fund and Percentage of Total Bond Investment, Republic of Korea .................................................................................................................. 76
Figure A.11: Value of Commercial Bank Loans, Common Stock, and Domestic Bonds, Philippines .......... 90
Figure A.12: Total Outstanding Singapore Government Securities and Corporate Bonds ................................... 97
Figure A.13: Composition by Type of Issuer of Corporate Debt, Singapore .................................................... 99
Figure A.14: Total Value of Commercial Bank Loans, Common Stock, and Domestic Bonds, Thailand ......... 109
Figure A.15: Total Outstanding Amount of Bonds by Type as of the End of 2002, Thailand ......................... 110
Figure A.16: Total Outstanding Value of Bonds by Type, Thailand ................................................................. 111
Figure A.17: Holdings of Government Bonds by Investor Type, Thailand ...................................................... 113
## Currency Equivalents per US$1.00
(as of 31 December 2002)

<table>
<thead>
<tr>
<th>Country</th>
<th>Currency Value</th>
<th>Unit</th>
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<td>China, People’s Rep. of</td>
<td>8.3</td>
<td>yuan (Y)</td>
</tr>
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<td>7.8</td>
<td>Hong Kong dollar (HK$)</td>
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<tr>
<td>Indonesia</td>
<td>9,311.2</td>
<td>rupiah (Rp)</td>
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<td>Korea, Rep. of</td>
<td>1,251.1</td>
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<td>Malaysia</td>
<td>3.8</td>
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<td>Philippines</td>
<td>51.6</td>
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<td>Singapore</td>
<td>1.8</td>
<td>Singapore dollar (S$)</td>
</tr>
<tr>
<td>Thailand</td>
<td>43.0</td>
<td>baht (B)</td>
</tr>
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</table>

**Note**

For the purpose of this report, the term East Asia is used to represent the following eight economies: People’s Republic of China (PRC); Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; and Thailand.
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>APEC</td>
<td>Asia Pacific Economic Cooperation</td>
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<tr>
<td>BAPEPAM</td>
<td>Badan Pangawas Pasar Modal</td>
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<tr>
<td>BI</td>
<td>Bank Indonesia</td>
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<tr>
<td>BIDS</td>
<td>Bond Information and Dissemination System</td>
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<tr>
<td>BIS</td>
<td>Bank for International Settlements</td>
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<tr>
<td>BNM</td>
<td>Bank Negara Malaysia</td>
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<tr>
<td>BOK</td>
<td>Bank of Korea</td>
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<tr>
<td>BOT</td>
<td>Bank of Thailand</td>
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<tr>
<td>BSP</td>
<td>Bangko Sentral ng Pilipinas</td>
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<tr>
<td>CP</td>
<td>commercial paper</td>
</tr>
<tr>
<td>CPF</td>
<td>Central Provident Fund (Singapore)</td>
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<tr>
<td>DVP</td>
<td>delivery vs. payment</td>
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<tr>
<td>EFBNs</td>
<td>Exchange Fund Bills and Notes</td>
</tr>
<tr>
<td>EMEAP</td>
<td>Executives’ Meeting of East Asia-Pacific Central Banks</td>
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<tr>
<td>FAST</td>
<td>Fully Automated System for Tendering</td>
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<td>FIDF</td>
<td>Financial Institution Development Fund</td>
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<td>FSC</td>
<td>Financial Supervisory Commission (Republic of Korea)</td>
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<tr>
<td>FSS</td>
<td>Financial Securities System</td>
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<tr>
<td>GDP</td>
<td>gross domestic product</td>
</tr>
<tr>
<td>GII</td>
<td>Government Investment Issue</td>
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<tr>
<td>GSED</td>
<td>government securities eligible dealer (Philippines)</td>
</tr>
<tr>
<td>HKMA</td>
<td>Hong Kong Monetary Authority</td>
</tr>
<tr>
<td>IBRA</td>
<td>State Asset Management Company (Indonesia)</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>IOSCO</td>
<td>International Organization of Securities Commissions</td>
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<tr>
<td>ITC</td>
<td>investment trust company</td>
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<tr>
<td>KDB</td>
<td>Korea Development Bank</td>
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<td>KDIC</td>
<td>Korea Deposit Insurance Corporation</td>
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<td>KSD</td>
<td>Korea Securities Depository</td>
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<td>Korea Stock Exchange</td>
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<td>KTB</td>
<td>Korea Treasury Bonds</td>
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<td>LFX</td>
<td>Labuan International Financial Exchange</td>
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<td>MART</td>
<td>Money Market Association of the Philippines</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>MAS</td>
<td>Monetary Authority of Singapore</td>
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<td>MEPS</td>
<td>MAS electronic payments system</td>
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<tr>
<td>MGS</td>
<td>Malaysian Government Securities</td>
</tr>
<tr>
<td>MOF</td>
<td>Ministry of Finance</td>
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<td>MOFE</td>
<td>Ministry of Finance and Economy</td>
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<td>MSB</td>
<td>Monetary Stabilization Bond</td>
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<td>MTB</td>
<td>Malaysian Treasury Bill</td>
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<tr>
<td>MTN</td>
<td>medium-term notes</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>OTC</td>
<td>over the counter</td>
</tr>
<tr>
<td>PBC</td>
<td>People’s Bank of China</td>
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<tr>
<td>PDS</td>
<td>private debt securities (Malaysia)</td>
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<tr>
<td>PEFINDO</td>
<td>Pemeringkat Efek Indonesia</td>
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<tr>
<td>PRC</td>
<td>People’s Republic of China</td>
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<tr>
<td>Recap</td>
<td>recapitalization</td>
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<tr>
<td>RENTAS</td>
<td>Real Time Electronic Transfer of Funds System</td>
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<tr>
<td>Repo</td>
<td>repurchase agreement</td>
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<tr>
<td>RoSS</td>
<td>Registry of Scripless Securities</td>
</tr>
<tr>
<td>RTGS</td>
<td>real time gross settlement</td>
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<tr>
<td>S&amp;P</td>
<td>Standard and Poor’s</td>
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<tr>
<td>SBI</td>
<td>Sertifikat Bank Indonesia</td>
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<tr>
<td>SC</td>
<td>Securities Commission</td>
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<td>SEC</td>
<td>Securities and Exchange Commission</td>
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<td>SFA</td>
<td>Securities and Futures Act</td>
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<td>SFC</td>
<td>Securities and Futures Commission</td>
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<td>Securities and Futures Commission Ordinance</td>
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<td>SFO</td>
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<td>SGS</td>
<td>Singapore Government Securities</td>
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<tr>
<td>SOE</td>
<td>state-owned enterprise</td>
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<td>SPV</td>
<td>special purpose vehicle</td>
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<td>SSTS</td>
<td>Scripless Securities Trading System</td>
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<td>SSX</td>
<td>Surabaya Stock Exchange</td>
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<tr>
<td>UK</td>
<td>United Kingdom</td>
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<td>US</td>
<td>United States</td>
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Executive Summary

The vision of an Asian regional bond market, with harmonized rules and regulations, arose from the emerging need to develop domestic bond markets to help finance large infrastructure requirements in many Asian countries. Although this was apparent to Asian governments, regulators, and multilateral institutions in the early 1990s, the markets grew moderately until the Asian financial crisis in 1997 highlighted the utility of the bond market in managing financial risks and dealing with the volatility of capital flows. The Asian bond market accelerated as a result, in different forms and to a different extent in each economy.

It has become clear that these individual, diverse markets can all benefit from regional-level cooperation to provide further security and stability, through such initiatives as establishing regional-level supervisory and guarantee agencies, a regional clearing and settlement system, mobilizing regional resources through Asian bond funds, and harmonizing bond market rules and regulations.

The First Asian Bond Fund of US$1.0 billion was successfully launched in July 2003. The Fund was subscribed by the central banks of the eight regional economies covered in this study as well as by Japan, Australia, and New Zealand, which together form the Executives’ Meeting of East Asia-Pacific Central Banks (EMEAP). A second Bond Fund of about US$2 billion is under active consideration by EMEAP. Substantial work on the market infrastructure for an Asian bond market has also been carried out through the ASEAN+ 3 initiatives.

This study, one of several related activities by the Asian Development Bank (ADB), provides an outline of the development of bond markets in East Asian economies—People’s Republic of China (PRC); Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; and Thailand. It addresses the issues involved in harmonization of their bond market rules and regulations, and makes recommendations on the next steps toward building a regional bond market.
In 1994, the overall size of the emerging East Asian bond market was about US$338 billion and by the end of 2002 exceeded US$1.1 trillion, more than half the total for emerging markets. The East Asian market achieved this preeminent position without much support, and even as the region’s economic and financial sectors endured a series of difficulties during the 1990s. In the early 1990s, commercial banks dominated the financial scene, and bond markets, although seen by many Asian governments as a means to support their infrastructure funding needs, were under-appreciated by the region’s policymakers, issuers, and investors.

In July 1995, the World Bank published a major study on regional bond markets that highlighted the need for policymakers, regulators, and major players to promote greater bond market development, and to catalyze possible initiatives on a regional scale. Although domestic markets were small in absolute and relative terms, their growth had begun to increase noticeably, and they seemed ideally suited to serving as vehicles to intermediate between the region’s capital consumers and providers. To foster their development, policy initiatives at the time exemplified a “build and then it will come” approach, and focused on building the necessary market infrastructure and developing the appropriate set of legal and regulatory frameworks.

Emerging East Asian bond markets actually grew rapidly during 1996–2002, but for reasons different from those envisaged just a few years earlier. Large infrastructure financing to support rapid growth in the region did not materialize. However, no event in recent history affected bond markets more than the Asian financial crisis that followed the devaluation of the Thai baht in July 1997. As contagion swept the region, bond markets provided a surprising utility and have prospered since the onset of the crisis. The role of domestic bond markets became widely appreciated post crisis, and the broadening and deepening of domestic markets has become a mantra for countries throughout the region. As a result, bond markets across Asia have grown, but in different ways in different countries. Varied initiatives by individual countries, ranging from developing a benchmark yield curve to fostering a robust securitization market, could serve as possible examples of how to further develop fixed-income markets in the region.

The bond market in East Asian economies is diverse and can be divided into three groups. Hong Kong, China; and Singapore,
as the premier financial centers, have well-developed bond markets. Republic of Korea, Malaysia, and Thailand have robust bond markets but will need to carry out additional reforms to deepen their bond markets. The bond markets of PRC, Indonesia, and Philippines are at different stages of development and need further reforms. Malaysia and the Republic of Korea have the largest bond markets as a percentage of the gross domestic product (GDP). The presence of a large institutional investor base in Malaysia is the key for the development of its bond market. In the Republic of Korea, the asset-backed securities market has made a major contribution to the development of a domestic bond market. The smallest bond markets relative to the GDP in 2002 were in Indonesia (32.3% of GDP) and the Philippines (28.4%). The PRC experienced rapid growth in its bond market during 2002, but the latter was only one fifth the size of the banking system.

East Asian bond markets have good growth potential compared with those in such countries as the United States. The recovery of East Asia and the massive accumulation of foreign exchange reserves (exceeding US$1 trillion) combined with historically low interest rates in the US will provide further stimulus to the development of Asian bond markets.

Seven areas are identified here that need to be harmonized to foster development of regional bond markets:

- Legal and regulatory framework
- Rating agencies
- Trading platforms
- Clearing and settlement
- Accounting and auditing standards
- Taxation
- Foreign exchange regulations

Given the different regulatory regimes and stages of debt market development, harmonizing regulatory regimes will take a long time. However, all eight countries are members of the International Organization of Securities Commissions (IOSCO) and subscribe to the IOSCO Objectives and Principles of Securities Regulations. Most Asia Pacific Economic Cooperation (APEC) countries have adopted a disclosure-based regulatory model and it is recommended that the others adopt this model as soon as feasible.
It is quite clear that it will take a considerable time for all the eight countries to adopt a common regulatory system and implement requisite regulatory reforms in individual countries. Some of these countries also operate on different legal systems and this will add complexity. Securities laws in many countries are also closely linked to several other laws including commercial codes, tax laws, and exchange controls.

A thematic approach toward the harmonization of regulatory frameworks would involve setting up a high-level APEC task force or working group representing the securities market regulators in each of the eight countries. In addition, a “committee of wise men” should be established to provide guidance for the working group. The use of the committee of wise men has been very successful in the integration of the European Community.

An interim measure would be to adopt a uniform bond registration requirement that approximates one that is already used in economies with well-developed financial markets, such as Singapore; Hong Kong, China; and Malaysia. This would accelerate development of regional bond markets. Specifically, it would mean that the countries can adopt a unified registration format for bond issuance that would specify (i) listing requirements, (ii) disclosure requirements, (iii) accounting standards, (iv) rating requirements, (v) places of trading, and (vi) clearing and settlement platforms aimed primarily for domestic bond issuance and trading, but which could accommodate cross-country issuance and trading in a limited manner when policymakers decided to do so. The uniform registration form could be based on IOSCO principles so that it would be easier to enforce.

Because the economies of at least three countries (Hong Kong, China; Malaysia; and Singapore) already meet international standards and have trading platforms, implementation of both domestic and regional bond market developments could proceed quickly once a decision is made by the authorities.

The study concludes that there is merit in creating a regional credit rating agency to complement the existing international and local rating agencies. A regional credit rating agency could play a lead role in developing local rating agencies and be a standard setter. Such an agency would have a clear mandate to operate within the Asian region.
The basic argument for setting up such a regional entity is similar to that for regional multilateral banks. The regional rating agency would be able to allocate its resources to rate small and medium companies that may be of less interest to the international rating agencies. The regional credit rating agency would also complement national rating agencies. Its priority areas would be corporate bonds and small and medium companies as well as structured finance.

It is appreciated that building such an agency would take time and talent. However, such talent already exists in the Asian region and the agency should be able to attract such talent. An alternative to creating a regional credit rating agency is strengthening institutional capacity of national rating agencies to rate foreign-currency-denominated debt instruments.

Government and corporate bonds in most of the countries studied are traded over the counter. However, the Republic of Korea and Malaysia have elaborate electronic trading platforms that can be used for the trading of Asian bonds at the regional level: Korea Stock Exchange, Labuan International Financial Exchange, and Bond-in-Asia. A comprehensive study of the existing regional trading platforms should be carried out to assess their comparative efficiency. As an alternative, an agreement on uniform over-the-counter trading rules should be sought among APEC countries to increase regional trading of Asian bonds.

Taxation for fixed-income securities in the eight countries varies. Singapore has the most generous tax regime for its bond market and it covers the issuers, market intermediaries (approved bond intermediaries), and investors. Hong Kong China’s tax regime for bond trading and investment is also attractive. The Republic of Korea, Philippines, and Thailand need to carry out reforms in this area to foster development of the domestic and regional bond market. The Philippines’s present tax system (20% final withholding tax) discourages the issuance of corporate bonds. There is more incentive for the corporate sector to issue short-term notes.

Given the fiscal implication and different levels of political commitment toward developing bond markets, the total harmonization of taxation between the eight countries may be the most difficult endeavor. Tax regulations, which need to be addressed both at the country and regional level, should be consistent with the tax treatment of global bonds issued by Asian countries in the
international markets. It is recommended that an APEC task force on taxation be set up to review taxation on bond markets within these countries to create a level playing field.

Hong Kong, China; Republic of Korea; and Singapore have no exchange controls as far as bond investment and trading are concerned. The Philippines has also liberalized exchange controls for bond market investment. Malaysia maintains capital control. Exchange regulations regarding bond market investment and trading should be reviewed to enable efficient and cost effective investment in regional bonds. A committee under EMEAP, a cooperative organization of central banks and monetary authorities in the East Asia and Pacific region, should be set up to review the exchange regulations with a view to creating a level playing field for regional bond trading. Given the different stages of economic development, it is appreciated that it may not be possible to create a level playing field for all investors in the short run. However, a step-by-step approach should be considered. For example, institutional investors in APEC countries might be allowed to invest in Asian bonds within a specified limit that can be reviewed from time to time.

Almost all of the countries except the PRC and Philippines have fairly advanced clearing and settlement systems. Hong Kong, China; Singapore; and Malaysia have adopted scripless trading and real time gross settlements using a delivery-versus-payment system on a transaction-by-transaction basis.

Although there are some differences in clearing and settlement systems, harmonizing them across the region would probably be the easiest step. Most of the changes are within the control of decision makers and would not require legislative changes. There are also other established clearing and settlement systems, such as Euroclear and CEDEL, that can be used as a regional hub for setting up and for clearing and settlement at the regional level. It is recommended that an APEC task force on clearing and settlement be set up to recommend ways to standardize these systems and to link them through one or more hubs.
Chapter 1
Introduction

This study, one of several related activities by the Asian Development Bank (ADB), provides an outline of the development of bond markets in East Asian economies—People’s Republic of China (PRC); Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; and Thailand. It addresses the issues involved in harmonization of their bond market rules and regulations, and makes recommendations on the next steps toward building a regional bond market.

At the end of 2002, the value of bond markets in these emerging East Asian countries exceeded US$1.1 trillion, more than half the total for emerging markets as a whole. East Asian markets achieved this preeminent position without much support, and despite a series of difficulties in the region’s economic and financial sectors over the preceding decade.

Domestic bond markets have grown rapidly to become important features of financial markets across the Asian region. The recovery of the East Asian economies (Chapter 2) and the massive accumulation of foreign exchange reserves combined with historically low interest rates in the United States (US) will provide further stimulus to the development of Asian bond markets. At present, the bond markets in all Asian countries except the Republic of Korea are smaller than the equity markets and substantially smaller than the banks.

The bond market in East Asian countries is diverse and can be divided into three groups. Hong Kong, China; and Singapore, as the premier financial centers, have well developed bond markets. The Republic of Korea, Malaysia, and Thailand have robust bond markets but will need to carry out additional reforms to deepen their bond markets. The bond markets of PRC, Indonesia, and Philippines are at different stages of development and need further reforms to build their bond markets. The Republic of Korea and Malaysia have the largest bond markets as a percentage of gross
domestic product (GDP). In the Republic of Korea, the asset-backed securities market has made a major contribution to the development of a domestic bond market. The presence of a large institutional investor base in Malaysia is the key for the development of the bond market there. The smallest bond markets relative to GDP in 2002 were in Indonesia and the Philippines. The PRC bond market grew rapidly in 2002, but it is much smaller than the banking system.

East Asian bond markets have good growth potential when compared with such countries as the US. However, concerted efforts are required at the country and regional levels. Each of the East Asian economies has a plan to further develop its domestic bond market.

Country-level efforts are being complemented by several initiatives to develop regional markets and supporting infrastructure. These involve (a) creating more robust, asset-backed securities markets; (ii) establishing a regional financial guarantee corporation; (iii) promoting regional credit rating agencies; (iv) developing a regional clearing and settlement system; (v) mobilizing regional resources through Asian bond funds; and (vi) harmonization of bond market rules and regulations.

Subsequent to the preparation of this publication there have been several notable developments in Asian bond market initiatives. The First Asian Bond Fund of US$1.0 billion was successfully launched in July 2003. The Fund was subscribed by the central banks of the eight regional economies covered in this study as well as of Japan, Australia, and New Zealand, which together form the Executives’ Meeting of East Asia-Pacific Central Banks (EMEAP). The Bank for International Settlements (BIS) is the portfolio manager and will invest the funds in dollar-denominated sovereign and quasi-sovereign issuers in PRC; Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; and Thailand. The First Asian Bond Fund has provided a major impetus for the development of regional bond market.

A Second Bond Fund of about US$2 billion is under active consideration by EMEAP. The second bond fund would focus on investments in local-currency-denominated debt and would also draw on the private sector. EMEAP expected to launch the second fund by the end of 2003.
Substantial work on the market infrastructure of the Asian bond market has also been carried out through the ASEAN+3 initiatives. These cover several topics including clearing and settlement, credit rating, credit guarantee, and asset securitization. ADB is an active participant in the six committees that have been set up to work on these initiatives.

There have also been notable changes in the area of taxation. In October 2003, the Royal Thai Government decided to waive withholding tax on bonds issued under the Asian Bond Fund Scheme. This is a move that financial industry experts believe will help accelerate development of the regional bond market.

This study is based on a review of information available in the public domain and telephone interviews with key market participants and staff of multilateral organizations. The study provides an overview of the recent developments in the East Asian bond market (Chapter 2) and the general state of the bond market in the selected economies (Chapter 3), with a special focus on rules, regulations, and key issues that would need to be addressed to build regional bond markets (Chapter 4). Chapter 5 provides recommendations and the next steps that are required to facilitate harmonization of bond market rules and regulations.
Chapter 2

Recent Macroeconomic Developments

Notwithstanding the sluggish global economy and subdued economic growth in the Organisation for Economic Co-operation and Development (OECD) countries, the economic development of East Asian countries exhibited good growth rates in 2002 (Table 2.1). In contrast, Japan’s GDP declined by 0.3% during 2002. The East Asian history of high domestic savings rates, a positive current account, and large foreign exchange reserves remains intact. Growth was punctuated in early 2003 by the outbreak of severe acute respiratory syndrome (SARS). However, its impact was not long lasting and these economies were rebounding during the second half of the year. Large domestic saving rates (Table 2.2) provide a cushion to stimulate growth through an increase in domestic consumption and regional integration in trade, investment, and financial market development.

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<thead>
<tr>
<th>Table 2.1: Growth Rate of GDP (%) p.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>China, People’s Rep. of</td>
</tr>
<tr>
<td>Hong Kong, China</td>
</tr>
<tr>
<td>Indonesia</td>
</tr>
<tr>
<td>Korea, Republic of</td>
</tr>
<tr>
<td>Malaysia</td>
</tr>
<tr>
<td>Philippines</td>
</tr>
<tr>
<td>Singapore</td>
</tr>
<tr>
<td>Thailand</td>
</tr>
</tbody>
</table>

Sources: ADB 2003; ADB 2003a.

East Asian economies continue to accumulate substantial foreign exchange reserves (Table 2.3), reflecting the success of their export-oriented economies. These reserves (other than gold) have grown appreciably since 1998 and stood at US$448.6 billion in 1998,
reaching US$720.6 billion in 2002, an increase of 60%. The PRC’s reserves grew to US$286.4 billion in 2002, with Hong Kong, China; and the Republic of Korea each exceeding US$100 billion. Most of the foreign exchange reserves of East Asian countries in 2002 were invested in US and European markets. These reserves provide a cushion against possible adverse economic events and serve as a potential pool of money that could be deployed to develop regional financial markets, especially Asian bond markets and asset-backed securities markets.

### Table 2.2: Gross Domestic Savings (% of GDP)

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003a</th>
</tr>
</thead>
<tbody>
<tr>
<td>China, People’s Rep. of</td>
<td>41.5</td>
<td>39.8</td>
<td>39.4</td>
<td>38.0</td>
<td>38.6</td>
<td>38.7</td>
<td>38.2</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>31.6</td>
<td>30.5</td>
<td>30.9</td>
<td>32.9</td>
<td>31.6</td>
<td>33.9</td>
<td>34.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>31.5</td>
<td>26.5</td>
<td>19.5</td>
<td>25.1</td>
<td>24.9</td>
<td>21.1</td>
<td>20.1</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>33.7</td>
<td>34.4</td>
<td>32.9</td>
<td>32.4</td>
<td>30.2</td>
<td>29.2</td>
<td>28.0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>43.9</td>
<td>48.7</td>
<td>47.4</td>
<td>47.1</td>
<td>42.2</td>
<td>41.8</td>
<td>42.1</td>
</tr>
<tr>
<td>Philippines</td>
<td>18.7</td>
<td>21.6</td>
<td>26.5</td>
<td>24.8</td>
<td>17.0</td>
<td>17.3</td>
<td>19.5</td>
</tr>
<tr>
<td>Singapore</td>
<td>50.5</td>
<td>51.7</td>
<td>48.8</td>
<td>47.9</td>
<td>43.6</td>
<td>44.2</td>
<td>47.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>33.6</td>
<td>36.1</td>
<td>32.8</td>
<td>31.0</td>
<td>30.0</td>
<td>30.5</td>
<td>28.7</td>
</tr>
</tbody>
</table>


* Estimate

### Table 2.3: Gross International Reserves (US$ billion)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China, People’s Rep. of</td>
<td>139.9</td>
<td>145.0</td>
<td>154.7</td>
<td>165.6</td>
<td>212.2</td>
<td>286.4</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>92.8</td>
<td>89.6</td>
<td>96.3</td>
<td>107.6</td>
<td>111.2</td>
<td>111.9</td>
</tr>
<tr>
<td>Indonesia</td>
<td>17.4</td>
<td>23.8</td>
<td>27.1</td>
<td>29.4</td>
<td>28.0</td>
<td>31.6</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>20.4</td>
<td>52.0</td>
<td>74.0</td>
<td>96.1</td>
<td>102.8</td>
<td>121.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>21.0</td>
<td>23.0</td>
<td>30.9</td>
<td>29.9</td>
<td>30.8</td>
<td>34.6</td>
</tr>
<tr>
<td>Philippines</td>
<td>8.8</td>
<td>10.8</td>
<td>15.1</td>
<td>15.0</td>
<td>15.7</td>
<td>16.2</td>
</tr>
<tr>
<td>Singapore</td>
<td>71.3</td>
<td>74.9</td>
<td>76.8</td>
<td>80.1</td>
<td>75.4</td>
<td>79.7</td>
</tr>
<tr>
<td>Thailand</td>
<td>27.0</td>
<td>29.5</td>
<td>34.8</td>
<td>32.7</td>
<td>33.0</td>
<td>38.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>398.5</strong></td>
<td><strong>448.6</strong></td>
<td><strong>509.6</strong></td>
<td><strong>556.4</strong></td>
<td><strong>609.0</strong></td>
<td><strong>720.6</strong></td>
</tr>
</tbody>
</table>

Chapter 3

East Asian Bond Markets and the Institutional Investor Base

East Asian bond markets continue to grow and their estimated size at the end of 2002 was US$1.1 trillion. However, in all Asian countries they were smaller than the banks and much smaller than bond markets in industrialized economies in 2002 (Table 3.1). The bond market in the US, for example, was 155.8% of GDP in 2002, while that in the United Kingdom (UK) was 68.3% of GDP. The potential for further development of the Asian bond market is substantial.

Table 3.1: Financial Sector Profile, 2002

<table>
<thead>
<tr>
<th>Country</th>
<th>Bonds US$ billion</th>
<th>%GDP</th>
<th>Equities US$ billion</th>
<th>%GDP</th>
<th>Banks US$ billion</th>
<th>%GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>China, People’s Rep. of</td>
<td>412.4</td>
<td>33.3</td>
<td>463.1</td>
<td>37.4</td>
<td>2073.3</td>
<td>167.6</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>44.6</td>
<td>27.4</td>
<td>463.1</td>
<td>284.1</td>
<td>677.9</td>
<td>415.9</td>
</tr>
<tr>
<td>Indonesia</td>
<td>56.0</td>
<td>32.3</td>
<td>30.1</td>
<td>17.4</td>
<td>114.4</td>
<td>66.0</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>380.9</td>
<td>82.5</td>
<td>215.7</td>
<td>46.7</td>
<td>608.6</td>
<td>131.9</td>
</tr>
<tr>
<td>Malaysia</td>
<td>82.7</td>
<td>86.9</td>
<td>122.9</td>
<td>129.1</td>
<td>135.0</td>
<td>141.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>21.9</td>
<td>28.4</td>
<td>18.2</td>
<td>23.6</td>
<td>46.0</td>
<td>59.7</td>
</tr>
<tr>
<td>Singapore</td>
<td>57.6</td>
<td>63.8</td>
<td>101.6</td>
<td>112.5</td>
<td>209.6</td>
<td>232.2</td>
</tr>
<tr>
<td>Thailand</td>
<td>47.3</td>
<td>37.4</td>
<td>45.4</td>
<td>35.9</td>
<td>136.8</td>
<td>108.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,103.4</strong></td>
<td><strong>45.5</strong></td>
<td><strong>1,460.1</strong></td>
<td><strong>60.2</strong></td>
<td><strong>4,001.6</strong></td>
<td><strong>165.0</strong></td>
</tr>
<tr>
<td>Germany</td>
<td>1743.9</td>
<td>87.6</td>
<td>686.0</td>
<td>34.5</td>
<td>3859.3</td>
<td>193.9</td>
</tr>
<tr>
<td>Japan</td>
<td>6748.0</td>
<td>169.0</td>
<td>2069.3</td>
<td>51.8</td>
<td>6685.9</td>
<td>167.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1064.0</td>
<td>68.3</td>
<td>1800.7</td>
<td>115.6</td>
<td>5001.4</td>
<td>321.2</td>
</tr>
<tr>
<td>United States</td>
<td>16272.6</td>
<td>155.8</td>
<td>11009.8</td>
<td>105.4</td>
<td>6979.5</td>
<td>66.8</td>
</tr>
</tbody>
</table>

Sources: BIS; Deutsche Bank; IFS; World Bank; World Federation of Stock Markets.
The East Asian bond market is diverse. The Republic of Korea and Malaysia have the largest bond markets as a proportion of their GDP. The presence of a large institutional investor base in Malaysia is the key for the development of the bond market there. In the Republic of Korea, the asset-backed securities market has made a major contribution to the development of the domestic bond market. Singapore has also made remarkable progress in developing the Singapore dollar market during the last 5 years. The smallest bond markets relative to the GDP in 2002 were in Indonesia (32.3%) and the Philippines (28.4%). The PRC experienced rapid growth in its bond market in 2002, but that market is only one fifth the size of the banking system. Figure 3.1 shows the composition of the East Asian bond market by country at the end of 2002.

The institutional infrastructure for domestic bond markets is largely in place in the region. In PRC, Indonesia, and Philippines, one area that stands out as a constraint to further bond market development and an impediment to structuring and pricing asset-backed securities, is the lack of market-based benchmarks.

Figure 3.1: Composition of the East Asian Bond Market

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC</td>
<td>37.4%</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>5.2%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>4.3%</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>7.5%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>34.5%</td>
</tr>
<tr>
<td>Philippines</td>
<td>2.0%</td>
</tr>
<tr>
<td>Singapore</td>
<td>4.0%</td>
</tr>
<tr>
<td>Thailand</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

Total: $1,103.4 billion

Institutional Investor Base

Institutional investors play vital roles in bond market development and are critical for advancing securitization activity. These roles include the facilitation of

- efficient pooling of long-term funds,
- risk mitigation and diversification,
- reduced reliance on commercial banks,
- financial innovation,
- transparency and disclosure, and
- minority shareholder protection.

Table 3.2: East Asian Institutional Investor Base (US$ million)

<table>
<thead>
<tr>
<th></th>
<th>Pension Funds</th>
<th>Life Insurance</th>
<th>Mutual Funds</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>China, People’s Rep. of</td>
<td>–</td>
<td>8,246</td>
<td>2,416</td>
<td>10,662</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>2,012</td>
<td>7,229</td>
<td>183,030</td>
<td>192,271</td>
</tr>
<tr>
<td>Indonesia</td>
<td>4,031</td>
<td>588</td>
<td>633</td>
<td>5,252</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>43,432</td>
<td>35,703</td>
<td>211,780</td>
<td>290,915</td>
</tr>
<tr>
<td>Malaysia</td>
<td>46,859</td>
<td>1,347</td>
<td>10,184</td>
<td>58,390</td>
</tr>
<tr>
<td>Philippines</td>
<td>7,194</td>
<td>466</td>
<td>138</td>
<td>7,798</td>
</tr>
<tr>
<td>Singapore</td>
<td>51,471</td>
<td>31,756</td>
<td>4,372</td>
<td>87,599</td>
</tr>
<tr>
<td>Thailand</td>
<td>8,270</td>
<td>1,342</td>
<td>8,020</td>
<td>17,632</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>163,269</strong></td>
<td><strong>86,677</strong></td>
<td><strong>420,573</strong></td>
<td><strong>670,519</strong></td>
</tr>
</tbody>
</table>

— data not available.

However, as Table 3.2 indicates, the development of an institutional investor base has been uneven across the region and across investor type. The institutional investor base for which data are available stands at US$670.5 billion. Assets are concentrated in the more developed countries, with Hong Kong, China; Republic of Korea; and Singapore accounting for about two thirds (Figure 3.2). It is not surprising that the Republic of Korea, with just over two fifths of the region’s institutional assets under management, has a domestic bond market with a similar share of regional bond market assets—and by far the largest market in asset-backed securities.

1 This section was drawn in large part from Akhtar 2001.
Harmonization of Bond Market Rules and Regulations

Most institutional assets in the region are concentrated in mutual fund portfolios (62.8% or US$420.6 billion), with another 24.3% (US$163.3 billion) in pension funds, and 12.9% (US$86.7 billion) in life insurance (Figure 3.3).

Institutional Assets by Type

Figure 3.2: Institutional Assets by Country, East Asia (%)

Sources: Hong Kong Monetary Authority; Monetary Authority of Singapore; OECD 2001.

Figure 3.3: Institutional Assets by Type, East Asia (%)

Sources: Hong Kong Monetary Authority; Monetary Authority of Singapore; OECD 2001.

Institutional Assets by Type

Most institutional assets in the region are concentrated in mutual fund portfolios (62.8% or US$420.6 billion), with another 24.3% (US$163.3 billion) in pension funds, and 12.9% (US$86.7 billion) in life insurance (Figure 3.3).
Mutual Funds

Development of these funds varies across the region, with Hong Kong, China; and the Republic of Korea dominating (Figure 3.4). Republic of Korea assets under management have dropped sharply in recent years because of the restructuring of major conglomerates, but portfolios are expected to recover and increase. Funds are constrained by a high fee structure, often with a front-end fee of 5% on top of management fees, which run at 1.5–2.0%. Governments also offer little incentive to the development of markets along the lines of 401(K) plans in the US.

Pension Funds

Pension systems also vary substantially by country (Figure 3.5) from pay-as-you-go systems to the established provident funds in Malaysia and Singapore. The Singapore Central Provident Fund is noteworthy in that it has a portfolio worth US$53 billion. There are newer provident funds in the PRC and Hong Kong, China, and mixed systems are present throughout the region. Pensions face challenges concerning aging populations and inadequate coverage, and are subject to public policy priorities concerning welfare policy objectives. Addressing these constraints promises significant opportunities for growth in this asset class.

Figure 3.4: Mutual Fund Assets, East Asia (%)

Sources: Hong Kong Monetary Authority; Monetary Authority of Singapore; OECD 2001.
Harmonization of Bond Market Rules and Regulations

Life Insurance

Half the region’s life insurance assets originate in the Republic of Korea (Figure 3.6). Penetration rates are low by world standards. While life insurance premiums are above 3% of GDP in Hong Kong, China; and Singapore, they are around or below 1% in most other
countries in the region. A few large companies dominate the insurance scene and foreign entry is usually restricted. Smaller companies tend to have limited resources and are relatively unsophisticated, while larger companies have all too often shown an unwillingness to innovate and suffer from weak distribution structures. By and large, Asian insurers have low paid-in capital and lenient solvency requirements. This has led to several high profile bankruptcies in the Republic of Korea, but Malaysia has done well by adopting a strong enforcement culture and has been willing to enforce the exit of companies that do not meet regulatory requirements. The insurance sector holds out the possibility of higher growth in higher-income countries.

**Constraints**

There are several constraints to the development of a thriving institutional investor base in the region: (i) underdeveloped capital markets, (ii) inadequate domestic debt markets, (iii) high transaction costs, (iv) government-mandated investment priorities, (v) investment objectives suited more for policymakers than beneficiaries, and (vi) weak legal infrastructure.\(^2\) These areas require redress in order to foster a stronger institutional base and, by extension, greater support for securitization activity.

**The Bond Market by Country**

The East Asian countries have moved in different directions in developing their bond markets. Highlights of each of the eight bond markets are provided below and the Annex provides more details on these markets.

*People’s Republic of China*

Although the PRC’s bond market is large in absolute amount, it is still at an early stage of development and lags substantially behind other East Asian countries in terms of regulatory framework, market infrastructure, efficiency, and transparency. Based on preliminary

data, the size of the PRC bond market in 2002 was about US$412.4 billion, making it the largest bond market in Asia excluding Japan. The market size in 2002 was 33.3% of GDP, or about the same as Indonesia. The banking system, with total assets of more than US$2 trillion, was the largest segment of the PRC financial market.

The regulatory system for the PRC bond market involves several institutions and is fragmented. The Ministry of Finance (MOF) is responsible for planning and issuing bonds in collaboration with the State Economy and Trade Committee. MOF is in charge of administering regulation and supervision of the debt market. However, the China Securities Regulatory Commission is in charge of regulating primary and secondary markets, including the supervision of securities companies. The People’s Bank of China (PBC), the central bank, is responsible for formulating and implementing monetary policy and supervising and regulating the financial industry.

Bond market regulations are less defined than those of the equity markets. MOF is in charge of the issuance of T-bonds, while PBC is responsible for approving debt securities issued by the financial institutions. Integration of debt market regulations into a single organization will facilitate development of the bond market in the PRC.

In 2002, the domestic bond market consisted of T-bonds (US$200.7 billion), financial institutions bonds (US$201.3 billion), and enterprise bonds (US$10.4 billion). Most T-bonds are traded through the interbank markets, although both the Shanghai Stock Exchange and Shenzhen Stock Exchange are also active in trading bonds in the secondary markets.

Several initiatives are underway to modernize the government bond markets: (i) issuance and distribution, (ii) market integration, (iii) expanding investor base and strengthening bond market intermediaries, (iv) creation of interest rate benchmarks, (v) clearing and settlements, and (vi) debt management strategy. Several technical assistance programs funded by the World Bank and ADB support these initiatives.

**Hong Kong, China**

The Hong Kong Monetary Authority (HKMA) has played a lead role in building the basic infrastructure of the market including
the creation of benchmark securities, trading platforms, and clearing and settlements. In 1995, HKMA and the World Bank jointly sponsored a regional conference in Hong Kong, China on the World Bank study: The Emerging Asian Bond Market.³

Although the need for a robust Asian bond market as an alternative source for industry was appreciated by regional financial authorities, it did not become a mantra in the region until the 1997 Asian financial crisis revealed the risk of excessive reliance on the banking sector. Since then, HKMA has spearheaded regional efforts to develop the Asian bond market, not just as an alternative source of funds but also as a risk management tool for financial authorities. The need for a more diversified financial system with a good balance between the banking sector, bond market, and equity market is well appreciated within the Asian region.

Hong Kong, China has made good progress in developing its debt market. As of the end of 2002, the bond market amounted to about HK$348 billion (US$44.6 billion). Although the banking sector and the equity market remain dominant in Hong Kong, China’s financial markets, the importance of the local bond market has been growing rapidly, now accounting for about 42% of GDP⁴ compared with 26% in 1997.

The current laws and regulations governing the debt securities market are the Banking Ordinance, the Securities and Futures Commission Ordinance (SFCO), and the Companies Ordinance. HKMA is responsible for the administration of the Banking Ordinance, which deals with the supervision of banks. The Securities and Futures Commission (SFC), an independent statutory body established by SFCO,⁵ administers the laws governing the securities and futures markets, which cover most nonbank intermediaries operating in the capital markets. Hong Kong, China has one of the most transparent regulatory systems in the world.

HKMA has put in place an infrastructure that can support the development of a robust local bond market. The infrastructure

³ Dalla 1995.
⁴ This percentage includes multilateral development banks (MDBs) and nonMDB overseas borrowers. For cross-country comparison (Table 3.1), these are excluded.
⁵ SFCO and nine other securities and futures related ordinances were consolidated into the Securities and Futures Ordinances (SFO), which came into operation on 1 April 2003.
includes the development of a government yield curve out to a maturity of 10 years; a real time, computerized book-entry settlement system for government and corporate bonds; and a mechanism to provide repo (repurchase agreement) and reverse repo facilities to primary dealers. The system is efficient and provides the same treatment to domestic and foreign participants. Availability of a broad range of products for hedging and investment purposes has helped Hong Kong, China to maintain its role in regional finance.

The key feature of the market is the operation of the currency board mechanism by HKMA, which increases the credibility of the fixed exchange rate regime. HKMA issues Exchange Fund Bills and Notes (EFBNs) to facilitate development of domestic bond markets. Notes issued by the Exchange Fund, which is responsible for managing HKMA’s assets, form the benchmark curve. Under the rules of the currency board, liquid foreign currency assets must back all the liabilities of HKMA, including EFBNs.

All EFBNs are exempt from all taxes (interest and capital gain) and stamp duties. HKMA has also extended the tax exemption to debt issues by multilateral agencies, such as the World Bank and ADB. In addition, income from “eligible securities” is subject to 50% of the applicable profit tax. To qualify as an eligible security, a security must be rated BBB or better, have an original maturity of not less than 5 years, a minimum denomination of HK$500,000 if issued after 1 April 1999 and HK$50,000 if issued before 1 April 1999, be cleared under the HKMA clearing system, and be issued to the public in Hong Kong, China. Clearing and settlements of EFBNs and corporate bonds are carried out through a real time gross settlement (RTGS) system using the delivery-vs.-payment (DVP) method, under which transactions are settled one by one.

The derivative market in Hong Kong, China ranks as one of the most developed markets in Asia. There is no restriction in accessing the foreign exchange or the fixed-income market for offshore investors. The pricing of derivatives is governed by arbitrage forces in the market rather than by regulatory restrictions, as is the case in many emerging market countries.

Indonesia

Fixed-income markets in Indonesia have developed rapidly since 1999 because the Government needed to issue massive amounts of
bonds to restructure the domestic banking system and recapitalize Bank Indonesia (BI), the central bank. At the end of 2002, total bonds outstanding were about rupiah (Rp)500 trillion (US$60 billion) or one third of GDP. Recapitalization bonds (recap bonds) account for the lion’s share of the Indonesian bond market. The recap market has undergone restructuring by the Government to smooth out its liability profile, and this process is expected to continue via voluntary exchanges in the future. A government bond market has also begun. In early 2003, the Government appointed BI as its agent to manage the issuance of government securities including clearance and settlement systems. Indonesian banks own most recapitalization (recap) bonds, but they will be replacing the bonds with loan assets in the future by making new loans or by applying them for payment in IBRA (State Asset Management Company) auctions. Liquidity in the market averaged about Rp400 billion per day (US$50 million) in 2002, but improved significantly in 2003.

With the passage of the Government Debt Securities Law in November 2002, the Government can now raise funds in the local market through the issuance of bonds. Despite recent progress, the Indonesian bond market is at an early stage of development. Further development needs concerted efforts by the Government, by establishing an interdealer market, developing the repo market, creating benchmark issues, widening the investor base, and enhancing the clearing and settlement system.

The Ministry of Finance (MOF) is responsible for regulating capital markets as provided in the Capital Market Law of 1995 (Law No. 8). BAPEPAM (Badan Pangawas Pasar Modal), the capital market supervisory agency, is responsible for carrying out the supervisory function of the securities markets for MOF. BAPEPAM is modeled on the US Securities and Exchange Commission. BAPEPAM regulates securities markets (stocks, bonds and derivatives, and market intermediaries) excluding the government securities market, which is regulated by the BI. Like other East Asian countries, Indonesia is a member of the International Organization of Securities Commissions (IOSCO) and follows the Objectives and Principles of Securities Regulation adopted by IOSCO.

Outstanding government debt comes in three forms: recap bonds, T-bonds, and promissory notes issued by BI. The Government Debt Securities Law established the legal framework for T-bond
issuance. MOF has since issued two bonds, originally of 8 and 8.5 years to maturity, in amounts of Rp2 trillion, and Rp2.7 trillion, respectively. Because T-bonds will be issued to fund fiscal deficits and refinance maturity recap bonds, this will be the major growth sector for the market over the years to come.

Sertifikat Bank Indonesia (SBI) is BI’s primary tool for open market operations. SBIs are issued to control the amount of liquidity within the banking system. They are issued in 1- and 3-month tenors and trade actively, forming the benchmark money market yield curve. SBIs are currently the only actively traded money market instrument in the Indonesian market.

Corporate bonds are generally underwritten by investment banks or securities houses on a best-effort or firm-commitment basis. Their issuance involves BAPEPAM, rating agencies, public accountants, notaries, trustees, and legal advisors. All participants in the process must register with BAPEPAM. Most corporate bonds are listed on the Surabaya Stock Exchange (SSX), which is the key player in the bond market in Indonesia. Although SSX has an electronic trading system, most corporate and government bonds are traded OTC as in the Republic of Korea and Thailand.

Income and capital gains for the bond market are treated the same way as operating income and are subject to the progressive corporate tax rate. Withholding tax varies depending on both the instrument and the institution. Capital gains from the sale of interest-bearing bonds are subject to ordinary income tax, which ranges from 5% to 35%, depending on the institution and level of income. Although banks are not subject to withholding tax on bonds, the income must be reported in the corporate income tax statement and is subject to the prevailing corporate income tax rate.

Government bonds trade in scripless form and are cleared and settled through BI, which houses the central registry for government bonds. BI’s registration and settlement system is called the Bank Indonesia System for Clearing, Registering, and Information about Government Securities, or BI-SKRIPT. Within this registry are the subregistries of onshore banks with which investors must set up a custodian account to trade government bonds. Since April 2003, all trades in government securities are cleared and settled in a DVP/RTGS process, although custodian banks submit clearing and settlement instructions to BI via a manual process. Settlement of corporate bond transaction payments follows the same process as
government bonds. Clearing of bonds, however, is carried out through the Kustodian Sentrel Efek Indonesia, the central depository for corporate bonds and securities. Standard settlement on government and corporate bonds is on a T+3 basis.

**Republic of Korea**

The Republic of Korea has a very large domestic bond market—it was the largest in Asia after Japan until 2002, when preliminary figures indicate that the PRC may have become the largest bond market in the region. From 1997 to 2001, the bond market in the Republic of Korea grew by 62%. By the end of 2001, the total value of bonds outstanding in the country was US$381.4 billion, equivalent to 90% of GDP. By the end of 2002, the total size of the bond had increased to Won (W)738 trillion. Throughout the 1990s, corporate bonds have accounted for an increasingly large share of the total bond market. In 2001, corporate bonds outstanding totaled W154.4 trillion, or 41% of the bond market overall. The Korean bond market is now the largest part of the Korean financial system. The role of the bond market has increased notably since 1997 and the trend has continued unabated.

Until 1997, corporate bond issuance in the Republic of Korea was controlled, and interest rates were determined administratively by the Government. In addition, most bonds were guaranteed by commercial banks, effectively tying the bond market to the banking sector. Although this practice enhanced the ability of the Government to implement its industrial policies through the banking system, it exacerbated the 1997 Asian financial crisis. Prior to the crisis, the Republic of Korea’s corporate sector had one of the highest rates of leverage in the world. The slowdown in the Korean economy, combined with large currency devaluations, led to a rash of defaults and bankruptcies in the corporate sector, which in turn contributed to the rising nonperforming assets of Korean financial institutions and their ultimate financial distress.

From 1997 to 2000, the Government made concerted efforts to address the problems of the banking sector and the corporate bond market. It issued a large amount of government securities to

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6 Dalla and Yoon-Shik Park 2003.
recapitalize and restructure banks. Defaulted bonds were systematically restructured through securitization, and banks have been prohibited from guaranteeing corporate bonds.

The asset-backed securities market in the Republic of Korea grew from US$6.7 billion in 1999 to US$50.9 billion in 2001. Securitization was fostered by the urgent need to address the problem of nonperforming loans in the financial system, the need to increase liquidity for the financial sector, and the need for an alternative funding source for the corporate sector. To facilitate securitization, the Government enacted the Asset-Backed Securitization Law in September 1998, which resolved most of the legal and regulatory issues associated with asset-backed securities and securitization. The law defined the term *asset-backed securitization* and specified the three main types of issuers of such securities in the Republic of Korea: (i) a special-purpose company, (ii) a trust company under the Trust Business Act, and (iii) foreign companies specializing in asset securitization. In addition to the Asset-Backed Securitization Law, the Government passed the Mortgage-Backed Securitization Company Act in 1999 to develop residential mortgage-backed securities.

Because of the deliberate policy of prohibiting banks from guaranteeing corporate bonds, the share of nonguaranteed corporate bonds rose from only 8% in 1996 to 98% in 2001. This has transferred risk from the corporate sector to the capital market. In the process, it has increased the transparency of the transaction and general corporate governance. Rating agencies, all of which are now associated with international rating agencies, have become more vigilant in credit risk assessment. General improvement in the economy and the sharp recovery in the stock market in 1999 and 2000 enabled the corporate sector to raise more equity capital and reduce its leverage. The leverage ratio of major Korean companies is now comparable to US companies.

The Republic of Korea’s regulatory framework has gone through substantial change since 1998. In 1997, the country was close to default on foreign exchange settlements because of the severe foreign exchange shortage faced by the financial system. On 21 November 1997, the Government had to turn to the International Monetary Fund (IMF) for a US$21 billion rescue package. One of the requirements of the IMF was that the country set up an effective and transparent regulatory framework, consistent with international
standards, that would enable the country to regain the confidence of the international community.

Prior to April 1998, the Ministry of Finance and Economy (MOFE) had the ultimate power in controlling all facets of the financial system. MOFE was a very powerful ministry before it relinquished some of its important functions to the Financial Supervisory Commission (FSC) and the Bank of Korea (BOK). Until then, MOFE established basic policies and supervised the overall operation of the securities markets by setting policies, interpreting securities laws, and authorizing the revocation of licenses for financial institutions. This led to excessive concentration of regulatory power, ineffective supervision of financial institutions, and the failure of the system during the 1997 Asian financial crisis. The financial supervisory system was completely overhauled in April 1998 under the Act on the Establishment of Financial Supervisory Organizations.

The Financial Supervisory Commission (FSC) is a unified financial supervisor for the securities, banking, insurance, and credit management funds sectors. The FSC, established in April 1998, inherited most of the functions of the Korean Securities and Exchange Commission, which was abolished in February 1998. Although the FSC answers to the Prime Minister, its active duties are performed independent of that office and other government agencies. The FSC has nine members—chairman, vice-chairman, and seven commissioners. Most decisions within the FSC are based on the majority rule; all financial institutions in the Republic of Korea are supervised by the FSC and Financial Securities System (FSS). The FSC’s duties include enforcing and rectifying supervisory rules, authorizing business activities, and overseeing the operation of financial institutions. The Securities and Futures Commission (SFC) is an enforcement agency that works under the FSC to supervise the securities and futures markets. It scrutinizes insider trading and price manipulation in the securities and derivative markets. It also oversees accounting standards and audit reviews, and reviews regulatory and supervisory matters related to the securities and futures markets for the FSC.

In the primary market, MOFE issues Korea Treasury Bonds (KTBs) based on the Government Bond Law. KTBs are issued in tenors of 3, 5, and 10 years. The weighted average maturity was 5.8 years at the end of 2002. The 10-year KTB was introduced in October
2000 and accounts for roughly 20% of the total issuance. KTBs are sold through competitive auctions. Since March 2003, the coupon frequency has changed to semiannual from quarterly. MOFE is considering restarting the issuance of short-term T-bills (e.g., 3 months) and these may replace certificates of deposit as a short-term benchmark.

For the issuance of government bonds, the BOK acts as agent to MOFE without participating in any auctions. The annual KTB auction schedule is announced at the end of each year and the monthly auction details are released at the end of each month. Since July 1999, several changes have been implemented in the primary market. First, the introduction of the primary dealer system lowered the number of auction participants and standardized the auction process. Second, various types of government bonds have been consolidated as KTBs and made fungible within 6 months. More importantly, the auction rates have been set at the highest successful bid rate (a Dutch auction) since August 2000, reducing the winner’s curse problem. In addition, individuals are allowed to enter noncompetitive bids up to 20%, which are filled at the average successful bid rate of each auction.

Corporations can issue bonds in an amount of up to four times their equity capital. When securities firms underwrite corporate bonds, they are required to do so only on a fully underwritten basis. No prior approval is required for issuing corporate bonds, but corporations must submit an issuance report to the FSC 8 calendar days in advance (or 6 days for guaranteed bonds) for the report to be validated. Corporate bonds are usually issued in original maturities of 1, 2, 3, and 5 years. Currently, over 90% of the bonds outstanding have a maturity of less than 4 years compared with 82% at the end of 1997.

Three local credit rating agencies (Korea Investor Services [KIS], Korea Ratings, and National Information & Credit Evaluation) are permitted to rate corporate bonds. Moody’s owns 50%+1 shares of KIS and Fitch has 7.4% ownership of Korea Ratings.

In the past, foreign issuers were not active in the Korean market because of the complex regulatory requirements. In January 2003, FSC changed the previous regulation in order to facilitate the issuance of won-denominated bonds by foreign issuers, i.e., Arirang bonds. Foreign issuers who follow International Accounting Standards
(IAS) or US Generally Accepted Accounting Standards (GAAP) are exempt from these requirements.

Although about 90% of bonds are listed on the Korean Stock Exchange (KSE), over 95% of the total trades in the secondary market take place in the OTC market. A bond’s listing on KSE has largely become a formality designed to enhance its acceptability, because most institutional investors are not permitted to invest in unlisted securities. Securities companies charge only around 1 basis point brokerage fees for the OTC bond trades. Typical minimum trade volume is W10 billion and yields are quoted on an after-tax basis. Same-day (T+0) settlement has been the norm, but the minimum settlement period will change to T+1 in June 2003. Typical bid/ask spreads are about 5-10 basis points (bps). In order to enhance market transparency, the Government opened the interdealer KTB market on the KSE in March 1999. Beginning January 2003, primary dealers are required to execute at least 40% of KTB trades in the interdealer market, including all on-the-run issues. With strong government support, exchange trading is expected to grow fast relative to OTC trading. Securities traded in either market are settled through the Korea Securities Depository (KSD), the sole central depository for securities.

In 1999, the Republic of Korea lifted most of the existing restrictions on the foreign exchange market. All capital account transactions, except those on the negative list, were fully liberalized. The most significant step was to allow all domestic forward foreign exchange transactions to be exempt from the “real demand principle” under which all such forward transactions must be certified as hedges against expected current account transactions. A forward exchange market exists onshore and is liquid up to 1 year, with daily trading volume near US$1 billion. In the offshore market, nondeliverable forwards (NDFs) can be structured in tenors up to 10 years, but tenors up to 12 months are the most actively traded. The NDF daily trading volume is approximately US$700 million. Typical bid/ask spread is 30–100 bps and typical trading size is US$5 million onshore and US$2 million offshore. Since foreign exchange market liberalization, the onshore/offshore spread has converged dramatically.

Banks have been the largest investors in government securities followed by the investment trust companies, insurance companies,
and pension funds. As of the end of 2002, holdings by banks amounted to W71.7 trillion or about 70% of the total outstanding. With accession to OECD at the end of 1996, the schedule for market liberalization was accelerated. In December 1997, the country fully opened the domestic capital market to offshore investors as part of the terms in accepting the IMF-sponsored bailout package. As of the end of 2002, foreigners held W647 billion worth of domestic bonds, which is about 0.1% of the total outstanding amount. Compared with the 35% foreign ownership of the domestic stock market, foreigners have been inactive in the local bond market, mainly because of the low interest rate.

The definition of a Korean resident is an individual who has a domicile or has been residing in the country for at least 12 months. Under the Income Tax Law, the taxation for nonresidents depends on whether they have a permanent establishment, such as an office or a factory. A nonresident who has a permanent establishment faces tax liabilities that are identical to those faced by a resident. A Korean resident pays 9–36% individual income tax for aggregate income, but a 16.5% separate tax rate applies up to W40 million of interest and dividend income. Residents do not pay capital gains tax on securities transactions. In contrast, the base tax rates for foreigners are 27.5% for interest income as well as capital gains. For capital gains, 11% of total sales proceeds may apply if it is lower than 27.5% of capital gains. Tax rates are often reduced or completely exempted under applicable double-taxation treaties, or agreements between the Republic of Korea and the investors’ countries. As a result, most foreign investors do not pay capital gains tax. Regarding tax rates for interest income, applicable rates for foreigners are 0.0–16.5%, mostly 10% or 15%. Currently, 55 countries have double-taxation treaties with the Republic of Korea.

There is a sophisticated clearing and settlement system. KSD’s role includes critical clearing, settlement, and custody functions in the Korean securities industry. KSD is subject to the supervision of MOFE, FSC, and FSS. At the end of 2001, KSD, a nonprofit organization, had 96 shareholders and 468 participants. The 96 shareholders are securities companies, banks, insurance companies, investment and trust companies, and other financial institutions.  

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7 Korea Securities Depository 2002.
All trades executed on the KSE or OTC are cleared on the basis of net balance. This net balance is settled through the book-entry transfer system operated by KSD. Trades initiated by institutional investors and executed by their broker/dealers can be confirmed, affirmed, and settled by book-entry deliveries for securities and by money transfer between the two parties through the KSD. Domestic bonds are usually settled on T+0 while the settlement cycle for equity-type debt instruments is T+2. FSC changed the minimum settlement period from T+0 to T+1 from June 2003.

**Malaysia**

Malaysia has one of the most robust bond markets in Asia. At the end of 2002, the size of its bond market was US$82.7 billion, or 86.9% of GDP. This was the highest proportion among all the East Asian countries. The bond market in Malaysia has developed significantly in terms of market size, the range of its instruments and products, and its level of market efficiency. The progress made has enhanced the role of the bond market in supporting economic growth and transformation. In particular, these developments have been geared toward developing the capital market to complement the role of traditional lenders.

At the end of 2002, outstanding bonds amounted to ringgit (RM)267.4 billion. Private debt securities (PDS) accounted for 43% of the total outstanding amount compared with Malaysian Government Securities (41%), quasi-government papers (7%), and Cagamas (National Mortgage Corporation) (8%). Total outstanding PDS declined in 2002 by 8% to RM114.2 billion because of redemptions from investors. Among PDS instruments, Islamic PDS (IPDS) and asset-backed securities registered significant growth during this period. Outstanding IPDS increased by 37% to RM46.6 billion, while asset-backed securities surged by 146% to RM3.0 billion.

*Bank Negara Malaysia* (BNM) regulates the activities of financial institutions via the Banking and Financial Institutions Act of 1989 (BAFIA). On 1 July 2000, the approving authority for private debt securities was transferred from BNM to the Securities Commission. The Securities Commission was established on 1 March 1993 pursuant to the Securities Commission Act of 1993 with the power to regulate the issuance of and the dealings in securities, to
encourage the development of the securities market, and to curb improper dealings. The Commission also regulates all matters pertaining to unit trusts and takeovers and mergers. Effective 1 July 2000, the Commission is the single approving and registering authority for prospectuses with respect to all private debt securities other than securities issued by unlisted recreational clubs. The Registrar of Companies is responsible for the lodgment of prospectuses.

In the government sector, the major instruments are Malaysian Treasury Bills (MTBs), Malaysian Government Securities (MGS), Government Investment Issues (GII) and BNM Bills, Cagamas Instruments, and Islamic Notes–Al Mudharabah (mutual funds).

The private debt market in Malaysia is the most active and instruments issued include commercial papers, medium-term notes (MTNs), and corporate bonds. The issuer may issue these bonds based on Islamic or conventional principles, and with (fixed/floating rate bonds) interest or without interest (zero coupon bonds) attached. The interest may be payable quarterly, semiannually, or annually depending on the cash flow of the issuer.

Tendering of bonds is carried out through the Fully Automated System for Tendering (FAST). FAST is an automated tendering system whereby invitations to tender, bids submission, and processing of tender for Scripless Securities Trading System (SSTS) instruments and short-term private debt securities are done electronically. The objective of FAST is to improve the overall efficiency of the tendering procedures, to reduce errors and delays arising from manual handling of tenders, and to eliminate potential disputes that may arise from the bidding process. Membership in FAST is currently open to licensed financial institutions (commercial banks, merchant banks, discount houses, and Islamic banks), development banks, insurance companies, statutory bodies, other financial bodies, and other market participants as approved by BNM.

For fund settlement purposes, the results of the tender for SSTS instruments are linked to the Real Time Electronic Transfer of Funds System (RENTAS) for allotment of securities and cash transfer. For PDS tendered through FAST, the settlement is done manually either through the Interbank Funds Transfer System or check clearing. Membership of RENTAS is restricted to financial institutions licensed under the Banking and Financial Institution
Act of 1989. The Bond Information and Dissemination System (BIDS), a computerized centralized database on Malaysian debt securities, provides information on the terms of issue, real-time prices, details of trades done, and relevant news on the various debt securities issued by both the Government and the private sector. The transparency of information provided by BIDS is expected to facilitate both primary and secondary market activities in the domestic bond market. BIDS provides transparency of information on bonds issued, thereby facilitating efficient trading in the secondary OTC market and enhancing liquidity in the debt securities market.

The Philippines

Philippine government debts have increased every year since 1997. External debt has increased at a faster pace than domestic debt as the government has resorted to international capital markets to take advantage of relatively lower market rates. It is estimated by Moody’s that about 48% of fiscal deficit has been financed through external borrowing.

In 2002, the domestic bond market amounted to about peso (P)1.4 trillion (US$27 billion or 35% of GDP) and overtook equities to become the second largest part of the Philippines financial system. The Philippines’ bond market has been dominated by the government sector since 1997 to finance fiscal deficits that have averaged around 5% of GDP per year. This may be one of the causes for the underdevelopment of the corporate bond market, which accounts for about 7% of the bond market. There are only two bond issues listed on the Philippine Stock Exchange.

The largest investors in the government securities are banks, trust funds, and the social security system. Banks are the dominant investors in the market, investing about P540 billion (17% of their assets) in national government debt, comprising over a third of total outstanding domestic government debt. Deposit and lending rates are fully liberalized, with most assets and liabilities priced on a floating rate basis relative to either 91-day or 365-day Treasury rates. Banks, therefore, have no natural demand for long-dated securities; however, the 0% risk weighting on investment in government debt boosts demand, especially because many banks do not meet the 10% capital adequacy ratios required under the General Banking
Act Capital Adequacy Requirements. At the end of 2002, total assets of the trust industry amounted to about ₱600 billion, of which ₱257 billion or 43% were invested in government debt. The life insurance sector in the Philippines is relatively small with total assets of about ₱145 billion, or 3.6% of GDP.

The government securities market in the Philippines is regulated by the Department of Finance and the implementation is carried out through the Treasurer of the Philippines. The Bureau of Treasury implements the regulations on a day-to-day basis. Corporate debt markets, both primary and secondary, are the responsibility of the Securities and Exchange Commission (SEC). Thus far, there have been only two bond issues listed on the Philippines Stock Exchange because of the withholding tax on corporate bonds. The Bangko Sentral ng Pilipinas (BSP) regulates dealers that are financial institutions that fall under its supervision. Securities dealers are regulated by the SEC.

T-bonds and T-bills are still the main investment vehicles for institutional investors, but the Government has also developed special purpose issuance, such as dollar-linked notes and taxable promissory notes, to answer particular investor needs. These innovations have allowed the Government to minimize supply affects in the T-bond market by tapping specific pools of liquidity. There has been a move to diversify the domestic investor base, focusing initially on development of the retail sector.

Only government securities-eligible dealers (GSEDs), dealers regulated and licensed by the SEC and BSP, are allowed to participate in government bond auctions on a competitive basis. Other financial institutions may participate via noncompetitive bid. Specifically, GSEDs are required to interface with the automated debt auction processing system (ADAPS), and the official Registry of Scripless Securities (RoSS) using Bridge Information Systems. RoSS is the central electronic registry for all government bonds, and is run by the Bureau of Treasury.

The bond market has never been a particularly important source of funding for Philippine companies. Both foreign and domestic issuers are governed by the same regulation under Chapter III of the SEC Regulation Code. Issuers must file a registration with the SEC, although exemptions are granted for issues to less than 19 investors, and issues guaranteed by the Government, or any foreign government with which the Philippines enjoys diplomatic relations. Issuers are
required to pay the SEC a fee of not more than 10 bps. Most corporate debt issued comes in tenors of less than one year in the form of commercial paper (CP). The issuance requirements differ slightly between commercial paper and corporate bonds. For example, CP requires that issuers obtain a credit rating from the sole ratings agency, PhilRatings, whereas no rating is required for corporate bonds. Conventionally, CP is underwritten, whereas corporate paper is most often issued via a Dutch auction process.

The secondary market is regulated by the SEC in consultation with the BSP. Transparency and price discovery have shown marked improvement in recent years, assisted by the market’s self-regulatory body, the Money Market Association of the Philippines, comprised of more than 60 financial institutions. Real-time pricing is available from a number of sources including Reuters, Telerate, and Bloomberg.

In the domestic T-bill market, a 20% final withholding tax is levied on the discount component upon issuance of the T-bills by the Bureau of Treasury subsequent to an auction participated in by domestic commercial banks and local branches of foreign banks. No other tax is levied on subsequent transfers of the T-bills in the secondary market. For corporate bonds, a final withholding tax of 20% is also levied on the coupon on coupon paying date. This 20% final withholding tax rate on government and corporate bonds is the Philippines domestic tax rate, which could be reduced to 15% under several tax treaty provisions.

Government securities are settled through the RoSS interface system, providing electronic settlement of government securities. All member banks have securities accounts with the Bureau of Treasury, which issues the government securities and administers RoSS. RoSS was designed from the start to handle DVP with the BSP as the settlement bank. However, at present, settlement is not done on a real-time basis. Corporate bonds are cleared through a separate DVP system between the institutions. There is no central clearing system for corporate bonds.

**Singapore**

Singapore’s debt market is one of the most efficient and transparent markets in the world. Until 1995, banks and equity markets were the major components of Singapore’s financial market; the bond
market played a limited role. Since the Asian financial crisis began in 1997, the Monetary Authority of Singapore (MAS) has made concerted efforts to develop domestic bond markets. Over the past few years, the Singapore Government Securities (SGS) market has grown rapidly, averaging more than 20% increase per annum. The size of bond market at the end of 2002 was about US$57.6 billion, or 63.8% of GDP, compared with 27.4% for Hong Kong, China. Since 1997, the local corporate bond market has nearly trebled in size to S$48.4 billion at the end of 2002.

The Singapore government bond market exists solely for the development of the debt market. It has developed rapidly without funding requirements for the Government. The Government has highlighted three reasons for the issuance of SGS: (i) to provide investors with a liquid and relatively risk-free investment alternative, (ii) to provide a pricing benchmark for corporate debt securities, and (iii) to encourage the development of skills relating to fixed-income financial services in Singapore.

The SGS is the largest segment of Singapore’s bond market, accounting for about 54% of the market. This has largely been a function of government regulations requiring banks to hold SGS for reserve purposes and more recently with the Government liberalizing the Central Provident Fund (CPF) investment accounts. In the corporate market in 2001, issuance by special purpose vehicles (SPVs) made up the largest part of the new issuance market. Issuance through SPVs has become increasingly popular in recent years, because they are able to offer a higher yield than normal securities.

The second largest issuers are foreign entities. Issuance by foreign entities increased under a stable exchange rate environment and the relatively low interest rates locally. Following closely behind foreign entities are property companies. However, local corporate debt issuance has fallen dramatically, with many companies in Singapore not wanting to increase their leverage in a tough and uncertain economic environment. Most corporations in Singapore are well capitalized. New issuance by financial institutions has declined in 2002, largely because there have been fewer mergers and acquisitions.

Despite the Government’s extension of the yield curve to 15 years in a bid to provide a pricing benchmark for issuers, the maturity of new securities has rarely extended beyond 10 years.
Since 2001, issuance has come mainly in short-dated to medium-dated securities because, with interest rates on a declining trend, most companies can issue short-dated debts with little risk of incurring higher rates when they are rolled over. This may change toward 2004 as expectation changes from one of declining rates to one of rising rates.

MAS is responsible for the development of Singapore’s financial markets. In October 2001, the Securities and Futures Act (SFA) was passed by parliament. The SFA is aimed at consolidating legislation related to capital markets activities in Singapore. For the debt market, the SFA has simplified the process for raising funds through debt issuance.

MAS, on behalf of the Government, issues two main types of government securities: Treasury bills (T-bills) and bonds (T-bonds). These securities have been given the highest credit rating available by three international ratings agencies: Fitch, Moody’s, and Standard and Poor’s (S&P). Issuance by statutory boards was at the forefront of development of the local bond market until 2001. The three largest issuers among the statutory boards in Singapore are Jurong Town Corporation, the Housing Development Board, and the Land Transport Authority.

The corporate debt market in Singapore has attracted a diverse group of issuers from around the world. The major issuers in the market are property companies, SPVs, locally incorporated entities, financial institutions, and foreign entities. Among that group, the locally incorporated entities remain the largest borrowers. However, as mentioned earlier, borrowing from foreign entities has been accelerating over the past few years.

At the start of 2003, the Government adopted a one-tier corporate tax system. Under the new system, dividends paid will not receive a tax credit component, and dividends received by investors will be tax exempt. More cash-rich companies are likely to issue preferential shares, which are often treated as bonds, over the coming years. This should provide some more duration to the bond market and be a welcome relief for life insurers because they will be moving to a new risk-based capital framework during the coming years.

As discussed earlier, debt issued through SPVs has increased significantly from only 37% of the debt issued in 2001 to 54% in 2002. SPVs generally offer more complex products to the market,
providing higher returns through a more efficient capital structure. The growth over the past few years has been driven by asset securitization, credit hybrid products, and collateralized debt obligations (CDOs). On asset securitization, property developers have been securitizing their property holdings to free-up more capital and increase their advantage. This area should continue to exhibit strong growth in the coming years with the introduction of the new risk-based capital framework, which means that insurers cannot have more than 16% of their assets concentrated in property. With regard to CDOs, banks, life insurers, and asset managers have been actively investing in this relatively new product as a means to diversify their assets and earn higher yield.

 Marketable SGS are issued via auction, with 3-month T-bills being issued weekly, while 1-year T-bills, 2-year, 5-year, 7-year, 10-year, and more recently 15-year bills are issued according to an issuance schedule. T-bill auctions are conducted under a multiple price (or discriminatory price auction) basis. Auctions of bonds are conducted under a uniform price basis. Although SGS auctions are open to all bidders, all bids must be submitted first to primary dealers. The primary dealers then submit the bids via SGS, which are made available only to primary dealers.

 Corporate issuers can use a simplified procedure to place their bonds to institutional investors. Unlike private placement, where the number of investors is limited to 30, there is no such restriction for selling bonds to institutional investors. Offering bonds to the public requires filing a prospectus and following procedures prescribed by MAS.

 Since August 1998, MAS has actively encouraged the participation of foreign issuers in Singapore, while still maintaining the policy of non-internationalization of the Singapore dollar. Issuance by foreign entities is governed by MAS Notice 757, which is also the notice dealing with the dollar non-internationalization policy. Under this policy, funds raised in Singapore dollars must be swapped into the remitting currency if they are being used outside Singapore. In general, foreign issuers follow the process outlined above.

 Secondary market trading in bonds has recently increased following the slump in equities in 2000 and efforts by the Government to encourage participation in the bond market. Trading in SGS dominates turnover, with significantly lower liquidity in
corporate debt in terms of both bid/offer spreads and size per issue. Average SGS bond daily turnover in cash trading in 2002 was S$1.7 billion, significantly higher than the 2000 turnover of S$0.6 million. Turnover is likely to stabilize unless the investor base widens or there is greater volatility in interest rates. T-bill turnover has been on a slight decline, with most investors buying and holding the instruments to maturity.

As of end-March 2003, banks held around 63% of the total SGS in the market. Over the past few years, asset managers have begun to participate more actively in the bond market. They have been more active buyers of SGS than of corporate bonds. These managers usually manage index funds, in which performance is compared with a certain benchmark index. If a foreign entity buys a corporate bond, the trade can be settled via Euroclear. However, if they buy SGS they must use a custodian account. Because of this extra administrative hurdle, foreign investor participation in the SGS market has been relatively small.

Nonresidents can freely transact in the SGS market and remit funds in and out of Singapore because there are no capital controls. Participation in SGS auctions is also permitted through the normal channels as mentioned previously. Furthermore, there are no restrictions on nonresidents to transact in Singapore dollar asset swaps, or to borrow from financial institutions in Singapore to invest in SGS and other Singapore dollar financial products. Also, there is no capital gains tax or withholding tax for nonresident entities when transacting in financial instruments.

The bigger players over the past few years have been the hedge funds and asset managers. Hedge funds have largely participated in the market by trading the bond-swap spread and more recently, they have occasionally traded in the interest rate options market via swaptions. Trading in bond-swap spreads, although more active than trading in interest rate options, has been limited because the swap spreads are tighter than in the more developed markets in the US and Europe. Similar to Hong Kong, China, Singapore has a well developed market for derivatives.

Any gains in the nature of capital made from the sale of bonds are exempt from Singapore tax except where the gains arise from the sale in the ordinary course of business carried on in Singapore or dealing in bonds. Generally, payments of any interest on bonds made to a nonresident are subject to withholding tax of 15%. This
rate may be reduced under the double taxation conventions to which Singapore is a party. Attractive tax incentives have also been introduced to encourage origination and trading of debt securities in Singapore. Tax incentives relevant to the bond market include a scheme for approved derivatives traders, financial institutions, and approved bond intermediaries.

SGS are traded in the secondary market “over the counter” (OTC). Secondary market dealers are spread across banks, merchant banks, and stock broking firms. In addition to primary and secondary dealers, there are a number of interdealer brokers who provide broking services for SGS outright and repo transactions to facilitate secondary market trading in the interbank market. The minimum trading amount for customers for both bonds and bills is S$1,000. Standard lot-size among dealers is S$5 million for on-the-run issues and off-the-run issues. Trading is usually transacted by telephone or via the Reuters Dealing System and cleared electronically on a DVP basis over the MAS Electronic Payments System (MEPS) and the MAS SGS book-entry clearing system. This is a RTGS system, introduced on 13 July 1998, which replaces the former end-day net settlement system, SHIFT. In order to trade in SGS, banks must have an SGS account with the MAS. Because SGS are scripless, ownership and transfer of SGS are reflected as book entries in banks’ custody accounts with MAS.

In the corporate bond market, nongovernment bonds settle through the Central Depository Pte (CDP), now under the Singapore Exchange (SGX), which has recently established a link with MEPS. However, since the extension of the bond market, many issues are launched through either Euroclear or CEDEL, which also have links with the CDP. Publicly issued bonds are listed on the SGX.

Similar to Hong Kong, China there are no local credit rating agencies. Issuers that wish to have their bond rated usually go to international ratings agencies such as Fitch, Moody’s, and S&P.

**Thailand**

Thailand’s bond market has grown rapidly since the 1997 Asian financial crisis. To help support cash-strapped financial institutions, the Government issued government bonds in June 1998, the first time in the decade. The total amount was baht (B)500 billion.
The other key development in the Thai bond market has been the introduction of savings bonds as a way of financing losses of the Financial Institution Development Fund (FIDF). With the issuance of B300 billion in savings bonds in 2002, retail investors have become the largest single investor segment, surpassing banks. Another B480 billion in savings bonds are expected to be issued in coming years.

The substantial amount of new government bonds, coupled with decreasing interest rates has made the bond market robust, as evidenced by a significant increase in both market size and trading volume. The outstanding value of total bond market increased from B547 billion in 1996 to B1,533 billion (US$35 billion) at the end of 2002.

The Bank of Thailand (BOT) supervises the operation of banking and finance businesses while the Securities and Exchange Commission (SEC) supervises the primary and secondary market for securities business. The issuance and offering of securities are governed by the Securities and Exchange Act 1992 (B.E. 2535). In November 1994, the Bond Dealers Club (BDC) was set up to be the secondary market for debt securities. The BDC was upgraded to The Thai Bond Dealing Centre (Thai BDC) in April 1998 after it was granted the Bond Exchange license from the SEC. The Thai BDC’s goals are to provide an environment for fair and secure trading, to monitor trade, and to disseminate information on the secondary bond market. The Thai BDC also functions as a self-regulatory organization and has implemented a number of standards and conventions for bond trading.

Bonds issued in Thailand are of two kinds: government and corporate debt securities. The market is dominated by government debt securities, which currently account for approximately 85% of total market outstanding. Government debt securities consist of T-bills and government bonds. Government bonds are medium- to long-term debt instruments issued by the Ministry of Finance (MOF). They consist of three types: investment bonds (IBs), loan bonds (LBs), and savings bonds (SBs). LBs capture the majority of the market because they are issued for financing budget deficits. IBs have not been issued since 1991 and there are only few issues remaining. SBs are issued to provide households with an alternative source of saving.

State-owned enterprise (SOE) bonds are medium to long-term debt instruments issued by SOEs. They are of two types: guaranteed
and nonguaranteed by MOF, of which the guaranteed bonds account for 86% of total. However, there are restrictions on the Government; its debt guarantee cannot exceed 10% of total budget expenditure. Only MOF-guaranteed bonds are eligible for liquidity reserve requirement, the same as government bonds.

The corporate sector began to issue bonds in 1992 after the enactment of the SEC Act, which has eased criteria for the issuance of corporate bonds. Structures of bonds include straight, floating rate notes, amortizing, and convertible. Bonds with more varying features are increasingly issued in recent years.

Government bonds and T-bills are issued through auction, which is organized by the central bank on a weekly basis. Term and size of the auctions are announced prior to the auction date. Auctions are held on a competitive price auction (American auction) basis. In June 2002, there was a launch of noncompetitive bids for small investors in the range of B4–40 million. For SOE bonds, the issuance and auctions are managed by the Public Debt Management Office and made through Dutch auction, where the entire issues are awarded to bidders (underwriters) who offer the lowest cost of funding.

For corporate bonds, issuance is subject to the SEC’s approval. Approval is granted on “issuer” basis, enabling issuers to offer bonds several times in one year. Credit ratings are required for all bond offerings with an exception applied to those offered to no more than 10 investors, or in an amount not exceeding B100 million or to creditors for debt restructuring.

In 2002, individuals as a group became the largest investor in the Thai government bond market. The sharp increase in the “pensions, individuals, others” is due mainly to the B300 billion savings bond that was sold to individual investors via an OTC savings bonds offering in September 2002. There was also a flight to safety by individual investors seeking higher returns in risk-free instruments. Other major investors in government bonds are commercial banks, mutual funds, securities, and investment companies. Commercial banks are the major holders of state enterprise bonds to meet BOT’s requirement that the banks hold at least 2.5% of their deposit base in these bonds. The number of mutual funds offering fixed-income products and their total funds under management have expanded rapidly in recent years.
However, they tend to prefer highly liquid securities of duration up to 10 years.

All government debt securities and most corporate bonds are registered with the Thai BDC. However, trading of bonds is mostly conducted through telephone or on an OTC basis. Dealers (financial institutions holding a debt securities license granted by the SEC) are required to report all bond transactions to the BDC. The BDC monitors, compiles, and disseminates prices to the public at the end of day. Prices disseminated by the BDC are used as market reference.

Most bonds trade on yield quoted with up to 6 decimal points. Prices are usually quoted on a “clean” basis as a percentage to par value. The market convention for price/yield formula is actual/365. Government bonds are the most actively traded securities, accounting for approximately 80–90% of total trade. Benchmark issues are government bonds with maturity close to 1, 2, 5, 7, and 10 years. Trading volume in the secondary market rose from a daily average of only B822 million in 1996 to B6,472 million in 2001. The liquidity of the market continues to improve, reaching about B10 billion per day in 2002 (about US$230 million for an annual turnover ratio of 1.7).

BOT is responsible for the settlement of government securities, as it is a depository and a registrar for government debt securities. Most government bonds are issued in bearer form and settled by physical delivery at BOT. Corporate bonds are cleared and settled at the Thailand and Securities Depository Co. Ltd. Most of them are scripless and transferred on a book-entry basis. The convention on settlement date is T+2 but can be varied upon counterparty agreement. BOT is currently working on the project to improve efficiency of the settlement system for government securities in order to facilitate DVP on a real-time basis.

Three types of income are subject to taxation: interest, discount (a spread between par and offering price), and capital gain. The tax rates vary across types of investors and types of income. Nonresident institutional investors are subject to 15% withholding tax on interest, discount, and capital gain. The rates may be reduced to 10% for double-tax treaty countries. For individual investors, interest income is subject to 15% withholding tax. The first individual buyer who buys discount bonds is also taxed 15% because discount is treated
as interest income. Capital gains tax for zero coupon debt instruments is waived for individual investors, while there is a 15% tax on coupon bonds. Very recently, the Government decided to waive a withholding tax on bonds issued under the Asian Bond Fund promoted by EMEAP. This should help accelerate development of the regional bond market.
Harmonization of Bond Market Rules and Regulations

This study identified several areas that need to be harmonized to foster development of regional bond markets. These are discussed below.

- Legal and regulatory framework
- Rating requirements
- Trading platforms and trading conventions
- Clearing and settlement procedures
- Accounting and auditing standards
- Tax treatment of interest income, capital gains, premium, and discount
- Foreign exchange regulations

Legal and Regulatory Framework

It is well appreciated in Asia that an effective regulatory and supervision framework for the bond market, intermediaries, institutional investors, and other market participants is required to foster the development of robust bond markets.\(^8\) Such framework should provide for adequate investor protection and sound business practices or codes of conduct that reduce systemic risks. This requires clearly defined market rules, a high degree of transparency, and high prudential standards and governance principles that recognize the importance of fiduciary obligations.

In the selected countries, there are currently two basic models of the regulatory systems: merit-based and disclosure-based. Three economies have adopted disclosure-based regulatory systems for securities market regulations: Hong Kong, China; Malaysia; and

\(^8\) APEC 1999.
Singapore, PRC, Indonesia, Republic of Korea, Philippines, and Thailand are still following merit-based systems.

Regulatory systems in several countries are still evolving. In the PRC, the regulatory system is fragmented, with several regulatory bodies involved in regulating bond markets. Reforms to unify the regulatory system and rules are underway. However, it is likely to take time. In Indonesia, it was only in March 2003 that the central bank (BI) was given a mandate to develop government securities markets.

To harmonize the regulatory frameworks of these countries that have different regulatory models and are at different stages of market development will require a high level of political commitment. A more elaborate and detailed review of securities laws and regulations of each country is required. This will be a major challenge. It will also take a considerable amount of time and resources.

The experience of Malaysia should be of interest to countries that are still following the merit-based regulatory system. In 1995, a decision was made by Malaysian authorities to accelerate the development of the bond market and streamline the regulatory system. Regulatory power for the bond market was also divided between the central bank (BNM), and the SC. The regulatory system was based on a merit system. It was not until 2000 that the SC was granted full power to regulate private debt securities. Careful preparations were made by the authorities to set the groundwork for transitioning to a disclosure-based regulatory system. Several studies were carried out in consultation with the private sector and key players in the bond market. Guidelines were issued to enable market participants to understand fully their responsibility and the rules of the game.

Two notable guidelines that should be studied by the other countries are (i) the guidelines for private debt securities (April 2003) and (ii) the final guidelines on asset-backed securities (April 2003). The Malaysian legal and regulatory framework clearly differentiates between bank deposits, money market instruments, and debt instruments and sets out the respective applicable regulatory regime. Debt instruments including Islamic debt instruments have been carefully defined.

It is apparent that it will take a long time for all the East Asian economies to adopt a common regulatory system and implement requisite regulatory reforms. Their different legal systems also add
complexity. Securities laws in some countries are closely linked to several other regulations including commercial codes, tax laws, and exchange controls.

A thematic approach toward the harmonization of regulatory frameworks would be to set up a high-level APEC task force or working group representing the securities market regulators in each country. In addition, a “committee of wise men” should be established to provide guidance for the working group. The use of such a committee has been very successful in the integration of the European Community. Committee members should be selected from the public and private sectors. Someone with direct experience in the harmonization of the European Community should also participate.

*Interim Measures to Facilitate Development of the Asian Bond Market*

There is no doubt that the harmonization of the regulatory system is one of the most essential requisites for the development of the regional bond market in the long run. However, movement toward a single bond market can probably take place in the interim period while these countries undertake comprehensive regulatory reforms.

The experience of the mortgage industry in the US should be of interest to the decision makers in Asia. In the US, all mortgage applications use standard formats that are acceptable to all market participants. This simplification has contributed to development of the secondary mortgage market. If the East Asian countries decide to adopt a uniform bond registration requirement that approximates one used in economies with well-developed financial markets, such as those of Hong Kong, China; Singapore; or Malaysia, it may be possible to move toward a single bond market on a fast track. Specifically, this would mean that the countries can adopt a unified registration format for bond issuance specifying (i) listing requirements, (ii) disclosure requirements, (iii) accounting standards, (iv) rating requirements, (v) places of trading, and (vi) clearing and settlement platforms.

Two basic issues would still need to be addressed: foreign exchange control and taxation. By adopting a uniform filing format, the countries would need to make explicit decisions about foreign exchange control regulations for issuers and investors. There would
also be a need to agree on standard taxation on bonds to enable development of liquid secondary markets. A regional tax treaty should be considered to simplify taxation on bonds to encourage cross-border trading.

The main thrust of the regulatory reform should be to move toward a disclosure-based system. Any company that can meet the listing requirements should be allowed to raise funds at the regional level. However, at the initial stage, the authorities may wish to limit the issuers to SOEs or large publicly listed companies to minimize operational risks.

**Market Infrastructure**

**Rating Agencies**

All major rating companies (Moody’s, S&P, and Fitch Ratings) operate within the Asian region. In addition, there are now several independent and joint venture rating agencies operating in these economies. In Malaysia, there are two strong credit rating agencies: Rating Agency Malaysia (RAM) and Malaysia Rating Agency (MARC). MARC is an affiliated company of Fitch. In the Republic of Korea, Moody’s and Fitch have affiliated rating agencies. In Indonesia, *Pemeringkat Efek Indonesia* (PEFINDO) is affiliated with S&P. In Thailand, there are two rating agencies: Thai Rating and Information Services Co. Ltd. and Fitch Rating. The Philippines Rating Service Corporation (PhilRatings) is the credit rating agency in the Philippines. Major companies in the PRC are covered mainly by the international rating agencies. However, local capacity is also developing rapidly. All the countries except Singapore require mandatory rating for issuance of private debt securities.

The eight economies have strong credit rating agencies and the agency with the longest track record is MARC. Standards being used by the agencies are similar. Harmonizing rating requirements between them should be feasible through the adoption of unified rating standards under the umbrella of a trade organization, such as the Association of Credit Rating Agencies in Asia. Whether ratings by a local rating agency in one country will be acceptable to authorities in other countries will depend on the common standards that are agreed upon.
There is merit in creating a regional credit rating agency to complement the existing international and local rating agencies. Such an agency could play a lead role in development of local rating agencies and be a standard setter. The agency would have a clear mandate to operate within the Asian region. The basic argument for setting up such a regional entity is no different from that of regional multilateral banks. The regional rating agency would be able to allocate its resources to rate small and medium companies that may be of less interest to international rating agencies. The priority areas would be corporate bonds and small and medium companies as well as structured finance. It is appreciated that building such an agency would take time and talent. However, this talent already exists in the Asian region and the agency should be able to attract such talent. Clearly, a more detailed feasibility study is required for its creation. An alternative is to strengthen the institutional capacity of national rating agencies to enable them to rate foreign-currency-denominated debt instruments. Extensive training would be required to achieve this.

Trading Platforms

Government and corporate bonds in most of the countries studied are traded OTC. However, the Republic of Korea and Malaysia have elaborate electronic trading platforms that can be used for trading Asian bonds at the regional level. The Surabaya Stock Exchange also provides an electronic trading platform. The Korea Stock Exchange has an internet-based trading system that is available to bond traders in the Republic of Korea but it has not been very popular; most bond dealers prefer OTC trading. There seems to be substantial excess capacity that can be used for regional bond trading.

In Malaysia, the Labuan International Financial Exchange (LFX) is active in trading Islamic bonds. LFX is an offshore financial exchange based in Labuan, the international offshore financial center for Malaysia. LFX was established to complement the various offshore financial services currently available in Labuan. LFX is wholly owned by the Kuala Lumpur Stock Exchange. LFX is a full-fledged exchange with listing and trading facilities. It is a one-stop financial exchange offering all services from the submission of
applications to approval, listing, trading, and settlement of the instruments listed. LFX transactions are not subject to any selective capital control measures. Transactions from Labuan as a duty-free port do not attract any exit levy or stamp duty. Labuan has broadband internet facilities. Several major international financial institutions currently operate there. Profit tax is 3%, which is perhaps the lowest in the Asian region.

In addition to these two trading platforms, there is also an active private sector regional trading platform headquartered in Hong Kong, China. The company, Bond-in-Asia (BIA), through its trading system, “BTX,” provides an electronic trading platform for Asian fixed-income securities. BIA’s proprietary trading technology interlinks the region’s leading fixed-income players with major institutional investors. BTX facilitates trading of government and corporate debt securities denominated in Hong Kong, China; and Singapore dollars in addition to G3-denominated (US$, ¥, and €) Asian credits. BIA’s shareholders and market makers are Citigroup (including Salomon Smith Barney), Deutsche Bank, Hong Kong and Shanghai Banking Corporation, BNP Paribas, Credit Suisse First Boston, ABN Amro, Bank of America, JP Morgan, Hang Seng Bank, Barclays, and DBS Bank. Other prominent shareholders include the Hong Kong Exchange and Reuters.

To accelerate trading of the Asian bond at the regional level, APEC countries may consider adopting unified rules and regulations for OTC in bonds.

**Clearing and Settlement Systems**

The systems used in clearing, making payments, and settling the securities trades are crucial for development of bond markets. All the countries except the PRC and Philippines have fairly advanced clearing and settlement systems, and have adopted scripless trading and RTGS/ DVP systems on a transaction-by-transaction basis. This subject has been studied in detail and has recently been documented by EMEAP. The publication provides details of securities clearing and settlement systems in East Asia. The basic conclusion is that a DVP system is the goal of these countries; implementation is under way in several countries.

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9 EMEAP 2002.
Although there are some differences in clearing and settlement systems, harmonizing them would probably be the easiest step toward total bond market harmonization. Most of the changes needed are within the control of decision makers and would not require legislative changes. There are also other established clearing and settlement systems, such as Euroclear, that can used as a hub for setting up and for clearing and settlement at the regional level. It is recommended that an APEC task force on clearing and settlement be set up to formulate ways to standardize the clearing and settlement systems and to link the existing clearing and settlement system through a hub or hubs. The Bank for International Settlements (BIS) has published extensively on this subject and has been a source of technical assistance to APEC and EMEAP.

**Audit and Accounting Standards**

All the countries except the PRC and Indonesia now have fairly well-developed accounting professions. Major international accounting firms also operate in all the countries. This area would clearly need to be harmonized. The approach suggested earlier of adopting a uniform registration format could be applied to audit and accounting standards.

**Taxation**

Taxation for fixed-income securities in the eight countries varies. Singapore has the most generous tax regime for its bond market. It covers issuers, market intermediaries (approved bond intermediaries), and investors. As a result, Singapore has been able to develop its domestic bond market rapidly from being marginal in 1995 to one of the most efficient in the world. Hong Kong, China has also introduced an attractive tax regime for bond investors and bond trading. The Republic of Korea and Thailand need to carry out further tax reforms to foster development of their domestic bond markets and encourage cross-border trading. The Philippines tax system (withholding tax) discourages the issuance of corporate bonds and needs to be reviewed. Given the fiscal implication and the different levels of political commitment toward developing bond markets, harmonization of taxation between these countries may be the most difficult endeavor. Unless some of the tax issues are
addressed, the development of a secondary market in some of these countries may be slow.

**Foreign Exchange Regulations**

Hong Kong, China; Republic of Korea; and Singapore have no exchange controls as far as bond investment and trading are concerned. The Philippines and Thailand have also liberalized exchange controls for bond market investment. However, Thai investors until recently\(^{10}\) were not permitted to invest in fixed-income instruments abroad without prior approval by the authorities. The PRC and Malaysia have exchange controls on outbound portfolio investment.

In order for a regional bond market to function efficiently, issuers and investors in each country should be treated equally. This may be hard to achieve in the short run given the different stages of economic development of each country. Creation of an Asian Special Drawing Rights should be given serious consideration and should be tried out on a limited basis. As an interim measure, the countries may consider allowing institutional investors to invest cross-border in Asian bonds within certain limits that can be reviewed based on the experience gained.

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\(^{10}\) In July 2003, the Bank of Thailand took action to enable eligible institutional investors to invest in bonds overseas.
Chapter 5

Conclusions and Recommendations

The 1997 Asian financial crisis highlighted the need for a robust bond market to reduce excessive dependence on the banking sector and create an alternative source of investment funds for East Asian economies. It is also well understood that a regional bond market could minimize risk in the financial system. East Asian bond markets continue to grow and totaled US$1.1 trillion at the end of 2002.

The study identified seven areas that need to be harmonized to foster development of regional bond markets:

• Legal and regulatory
• Rating agencies
• Trading platforms
• Clearing and settlement
• Accounting and auditing standards
• Taxation
• Foreign exchange regulations

All APEC countries should move toward a disclosure-based regulatory model. Given the different regulatory regimes and the stages of debt market development, harmonizing regulatory regimes is likely to take a long time. An interim measure would be to adopt a uniform bond registration requirement that approximates those being used in economies with well-developed financial markets such as Hong Kong, China; Singapore; and Malaysia. This would accelerate development of regional bond markets.

A regional credit rating agency should be established. Such agency could play a lead role in facilitating the development of local rating agencies and in setting standards. It would complement the existing international and domestic rating agencies and have a clear mandate to operate within the region. It would be able to allocate its resources to rate small and medium companies that may be of
less interest to the international rating agencies. The priority areas would be corporate bonds, small and medium companies, and structured finance. It is recommended that a detailed feasibility study be carried out for creating a regional rating agency. As an alternative, institutional capacity of domestic credit rating agencies should be strengthened to enable them to rate bonds denominated in foreign currencies and upgrade their standards to meet the requirements of international investors.

A comprehensive study of the existing regional trading platforms should be carried out to assess their comparative efficiency.

An APEC task force on clearing and settlement should be set up to recommend ways to link the existing clearing and settlement systems through one or more hubs.

An APEC task force on taxation should be set up to review taxation on bond markets within these countries to create a level playing field.

Exchange regulations regarding bond market investment and trading should be reviewed to enable efficient and cost-effective investment in regional bonds. Given the different stage of economic development, it may not be possible to create a level playing field for all investors in the short run. However, a step-by-step approach should be considered. Institutional investors in APEC countries could be allowed to invest in Asian bonds within a specified limit that could be reviewed from time to time.
ANNEX

BOND MARKETS OF SELECTED EAST ASIAN ECONOMIES
People’s Republic of China

Background

In 2002, the GDP of the People’s Republic of China (PRC) expanded by 8.0%. This was slightly higher than the 7.8% average of the previous 5 years because of strong exports and an increase in foreign direct investment. The economy may have slowed down slightly during the first half of 2003 because of the severe acute respiratory syndrome (SARS) epidemic.

Based on 2002 data, the size of the PRC domestic bond market was about US$412 billion (Figure A.1), consisting of T-bonds (US$200.7 billion), financial institution bonds (US$201.3 billion), and enterprise bonds (US$10.4 billion). Two thirds of the T-bonds are traded through the interbank markets. However, both the Shanghai Stock Exchange and Shenzhen Stock Exchange are also active in trading bonds in the secondary markets.

Figure A.1: Domestic Debt Securities Outstanding, PRC
(US$ billion)

Although the PRC’s bond market is large in absolute amount, it is still at an early stage of development and lags substantially behind other East Asian countries in terms of regulatory framework, market infrastructure, efficiency, and transparency. Based on preliminary data, the size of the Chinese bond market in 2002 was about US$412.4 billion, making it the largest bond market in Asia excluding Japan. However, as percentage of GDP, the size of the market was 33.3%, about the same as in Indonesia. The banking system, with total assets more than US$2 trillion, was the largest segment of the PRC market.

**Regulatory Framework**

The regulatory system for the bond market in the PRC involves several institutions and is fragmented. The Ministry of Finance (MOF) is responsible for planning and issuing bonds in collaboration with the State Economy and Trade Committee. MOF is in charge of administering regulation and supervision of the debt market. However, the China Securities Regulatory Commission is in charge of regulating primary and secondary markets including the supervision of securities companies. The People’s Bank of China (PBC), the central bank, is responsible for formulating and implementing monetary policy and supervises and regulates the financial industry.

Regulations of bond markets are less defined than those of the equity markets. MOF is in charge of the issuance of T-bonds, while the PBC is responsible for approving debt securities issued by the financial institutions. Integration of debt market regulations into a single organization would facilitate development of the bond market in the PRC.

Several initiatives are underway to modernize government bond markets in the PRC. Reforms include the following areas: (i) issuance and distribution, (ii) market integration, (iii) expanding the investor base and strengthening bond market intermediaries, (iv) creation of interest rate benchmarks, (v) clearing and settlements, and (vi) debt management strategy. Several technical assistance programs funded by the World Bank and the Asian Development Bank (ADB) support these initiatives.
Background

Hong Kong, China has been at the forefront in the development of a domestic bond market. The Hong Kong Monetary Authority (HKMA) has played a lead role in building the basic infrastructure of the market including the creation of benchmark securities, trading platforms, and clearing and settlements. In 1995, HKMA and the World Bank jointly sponsored a regional conference in Hong Kong, China on the World Bank’s study The Emerging Asian Bond Market.\(^\text{11}\)

Although the need for a robust Asian bond market as an alternative source for industry was recognized by regional financial authorities, it did not become a mantra in the region until the 1997 Asian financial crisis revealed the risk of excessive reliance on the banking sector. Since then, HKMA has spearheaded regional efforts to develop the Asian bond market, not just as an alternative source of funds but also as a risk management tool for financial authorities. The need for a more diversified financial system with a good balance between the banking sector, bond market, and equity market is well appreciated within the Asian region.

Hong Kong, China has made good progress in developing its debt market as shown in Figure A.2. As of end-2002, the bond market amounted to about HK$532 billion (US$68 billion). Although the banking sector and the equity market remain dominant in Hong Kong, China’s financial markets, the local bond market has been advancing rapidly, now accounting for about 42% of GDP compared with just 26% in 1997.\(^\text{12}\)

Hong Kong, China has put in place infrastructure to support the development of a robust local bond market. The infrastructure

\(^{11}\) Dalla 1995.
\(^{12}\) Bond market data include bond issues by multilateral development banks (MDBs) and nonMDB overseas borrowers. For cross-country comparison (c.f., Table 3.1), they are not included.
includes the development of a government yield curve out to a maturity of 10 years; a real time, computerized book-entry settlement system for government and corporate bonds; and a mechanism to provide repo and reverse repo facilities to primary dealers. Hong Kong, China’s system is efficient and transparent and provides the same treatment to domestic and foreign participants. Availability of a broad range of products for hedging and investment purposes has helped Hong Kong, China to maintain its role in regional finance.

The Hong Kong Dollar Bond Market

The main issuers of Hong Kong dollar debt instruments include the Exchange Fund, statutory bodies/government-owned corporations, multilateral development banks (MDBs), nonMDB overseas borrowers, authorized institutions, and local corporations. The annual new issuance has dipped modestly to below HK$400 billion in the past 2 years as economic activities slowed down. The total outstanding amount was HK$532 billion as of end-2002, a 50% increase since end-1997 (Figure A.2). Other than HKMA,
government agencies, multilateral development banks, and local banks are the main issuers of debt in Hong Kong dollars (Figure A.3). Licensed banks are the major investors, accounting for 84% of the outstanding Exchange Fund Bills and Notes (EFBNs) and about 37% of the other Hong Kong dollar debt securities.

**Regulatory Framework**

The current laws and regulations governing the debt securities market in Hong Kong, China are the Banking Ordinance, the Securities and Futures Commission Ordinance (SFCO), and the Companies Ordinance. HKMA is responsible for the administration of the Banking Ordinance, which deals with the supervision of banks. The Securities and Futures Commission (SFC), an independent statutory body established by the SFCO, administers the laws operating in the capital markets. Hong Kong, China has one of the most transparent regulatory systems in the world.

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*Als include licensed banks, restricted banks, and deposit-taking companies. MDB = multilateral development banks

Sources: Hong Kong Monetary Authority; Deutsche Bank 2002.

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13 The SFCO and nine other securities and futures related ordinances were consolidated into the Securities and Futures Ordinance (SFO), which came into operation on 1 April 2003.
Instruments in the Hong Kong Dollar Bond Market

The Government does not issue debt. Despite large fiscal deficits in recent years, the fiscal reserve, accumulated through a history of fiscal conservatism, still amounts to HK$305 billion, about 24% of GDP.

The key feature of the Hong Kong, China market is the operation of the currency board mechanism by HKMA, which increases the credibility of the fixed exchange rate regime. HKMA issues EFBNs to facilitate development of domestic bond markets. Notes issued by the Exchange Fund, which is responsible for managing HKMA’s assets, form the benchmark curve. Under the rules of the currency board, liquid foreign currency assets must back all the liabilities of HKMA, including EFBNs.

EFBNs constitute direct, unsecured, unconditional, and general obligations of the Government for the account of the Exchange Fund and rank pari passu with all other unsecured indebtedness of the Government for the account of and payable from the Exchange Fund. The EFBNs program ensures the supply of a significant amount of high quality Hong Kong dollar debt paper, which can be used as trading, investment, and hedging instruments. Authorized institutions that maintain Hong Kong dollar clearing accounts with HKMA can use their holdings of Exchange Fund papers to borrow overnight Hong Kong dollars from the discount window. An active primary and secondary market for the trading of EFBNs, and the establishment of a reliable benchmark yield curve for up to 10 years, has facilitated the development of a sophisticated Hong Kong dollar debt market (Figure A.4).

The Exchange Fund Bills program was introduced in March 1990. Under the program, bills of 91-, 182-, and 364-day maturity are regularly auctioned in the form of a public tender. To facilitate the management of liquidity by the banks participating in the RTGS (the interbank Hong Kong dollar payment system), three tap issues of 28-day Exchange Fund Bills have been issued since November 1996. As the banks in Hong Kong, China have become more proficient in managing their intra-day liquidity, demand for the tap issues has fallen. Consequently, HKMA decided to gradually reduce the size of each of the tap issues of 28-day Exchange Fund
Bills and replace them with a range of longer-term Exchange Fund Notes.

**Recognized Dealers and Market Makers**

To enhance secondary market liquidity and ensure the credibility of a benchmark yield curve, HKMA has put in place an effective market-making system for EFBNs. Under the market-making system, market makers undertake to quote two-way prices of the Exchange Fund paper upon request during normal trading hours. In return for the privileges, market makers are obliged to support (with different degrees of commitment) the development of exchange and bill markets. Market makers appointed from the pool of registered dealers have the added responsibility of maintaining secondary market liquidity.

**Derivatives**

The derivative market in Hong Kong, China ranks as one of the most developed markets in Asia. There is no restriction in accessing foreign exchange or the fixed-income market for offshore investors.
The pricing of derivatives is governed by arbitrage forces in the market rather than by regulatory restrictions, as is the case in many emerging market countries.

**Taxation**

EFBNs are exempt from all taxes (interest and capital gain) and stamp duties. The HKMA has also extended the tax exemption to debt issues by 10 multilateral agencies (ADB, International Bank for Reconstruction and Development, International Finance Corporation, European Investment Bank, European Bank for Reconstruction and Development, Inter-American Development Bank, Nordic Investment Bank, European Company for the Financing of Railroad Rolling Stock, Council of Europe Social Development Fund, and African Development Bank). In addition, income from “eligible securities” is subject to 50% of the applicable profit tax. To qualify as an eligible security, a security must be rated BBB or better, have an original maturity of not less than 5 years, a minimum denomination of HK$500,000 if issued after 1 April 1999 and HK$50,000 if issued before 1 April 1999, be cleared under the HKMA clearing system, and be issued to the public in Hong Kong, China.

**Clearing and Settlements**

Clearing and settlements of EFBNs and corporate bonds are carried out through the DVP/RTGS process.
Indonesia

Background

Fixed-income markets in Indonesia have developed rapidly since 1999 because of the need for the Government to issue a massive amount of bonds to restructure the domestic banking system and recapitalize Bank Indonesia (BI, the central bank), which incurred large losses in its liquidity support operations during the 1997 Asian financial crisis. At the end of 2002, total bonds outstanding were about rupiah (Rp)500 trillion (US$60 billion) or one third of GDP (Figure A.5).

Recapitalization bonds (recap bonds) account for the lion’s share of the Indonesian bond market. The recap market has undergone restructuring by the Government to smooth out its liability profile, and this process is expected to continue via voluntary exchanges in the future. The Government has also started to build a government bond market. Early in 2003, it appointed BI as its agent to manage the issuance of government securities including clearance and settlement systems. Indonesian banks own most recap bonds, but

![Figure A.5: Outstanding Value Among Traded Fixed-income Instruments, Indonesia (Rp trillion)](image)

Source: Deutsche Bank 2002.
they will be replacing the bonds with loan assets in the future by making new loans or by applying them for payment on State Asset Management Company (IBRA) auctions.

Liquidity in the market averaged about Rp400 billion per day (US$50 million) in 2002, but improved significantly in 2003. With the passage of the Government Debt Securities Law in November 2002, the Government can now raise funds in the local market through the issuance of bonds. Despite recent progress, the Indonesian bond market is at an early stage of development and concerted efforts by the authorities are required to develop it further, e.g., by establishing an interdealer market, developing the repo market, creating benchmark issues, widening the investor base, and enhancing the clearing and settlement system.

**Regulatory Framework**

The Ministry of Finance (MOF) is responsible for regulating capital markets as provided in the Capital Market Law of 1995 (Law No. 8). BAPEPAM (Badan Pangawas Pasar Modal), as the capital market supervisory agency, is responsible for carrying out the supervisory function of the securities markets for MOF. It is modeled on the US Securities and Exchange Commission. BAPEPAM regulates securities markets (stocks, bonds and derivatives, and market intermediaries) excluding the government securities market, which is regulated by BI. Like the other East Asian economies, Indonesia is a member of IOSCO and follows the Objectives and Principles of Securities Regulation adopted by IOSCO.

**Types of Debt Instruments**

**Government Debt**

Outstanding government debt is in three forms: recap bonds, T-bonds, and promissory notes issued by the BI.

*Recap Bonds.* Recap bonds were issued directly to insolvent or undercapitalized banks in exchange for assets that were to be restructured and auctioned off by IBRA. Bonds were issued only twice by a ministerial decree. The first issue was in April 1999 to 4 banks taken over by the State, and the second in December 1999 to 7 other banks in need of recapitalization.
**Treasury Bonds.** The Government Debt Securities Law, passed in November 2002, established the legal framework for Treasury bond issuance. MOF has since issued two bonds, originally of 8 and 8.5 years to maturity, in amounts of Rp2 trillion, and Rp2.7 trillion, respectively. Because T-bonds will be issued to fund fiscal deficits and refinance maturity recap bonds, this will be the major growth sector for the market over the years to come.

**Promissory Notes.** Promissory notes are not a part of the trade market. These are zero-coupon perpetual obligations of the Government to BI. They will be retired over the coming years by debiting the annual dividend paid by BI to the federal Government. These obligations currently total about Rp230 trillion.

**Sertifikat Bank Indonesia (SBI)**

SBIs are BI’s primary tool for open market operations. SBIs are issued to control the amount of liquidity within the banking system. SBIs are issued in 1- and 3-month tenors and trade actively, forming the benchmark money market yield curve. SBIs are currently the only actively traded money market instrument in the Indonesian market.

**Corporate Bonds**

Corporate bonds are generally underwritten by investment banks or securities houses on a best effort or firm-commitment basis. The issuance of corporate bonds in Indonesia involves BAPEPAM, rating agencies, public accountants, notaries, trustees, and legal advisors. All participants in the process must register with BAPEPAM. The major administrative requirements for corporate bond issuance include filing a prospectus with BAPEPAM. All bond issues must be rated by Pemeringkat Efek Indonesia (PEFINDO). Issuers’ accounts must be audited by independent auditors. Most corporate bonds are listed on the Surabaya Stock Exchange (SSX), which is the key player in the bond market in Indonesia. Although an electronic trading system is provided by the SSX, most corporate and government bonds are traded over-the-counter (OTC) as in the Republic of Korea and Thailand.
Taxation

Income and capital gains for the bond market are treated the same way as operating income and are subject to the progressive corporate tax rate. Withholding tax varies depending on both the instrument and the institution, as shown in Table A.1. Capital gains from the sale of interest-bearing bonds are subject to ordinary income tax, which ranges from 5% to 35% depending on the institution and level of income. Although banks are not subject to withholding tax on bonds, the income must be reported in the corporate income tax statement and is subject to the prevailing corporate income tax rate.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Corporate/Government Bonds</th>
<th>SBI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pension Funds</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mutual Funds(^a)</td>
<td>0 / 20</td>
<td>20</td>
</tr>
<tr>
<td>Insurance Companies</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Corporate</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Individuals</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

SBI = Sertifikat Bank Indonesia

\(^a\) 0% for the first five years after the establishment of the fund after which the rate rises to 20%.

Source: Deutsche Bank 2002.

Clearing and Settlement

Government bonds trade in scripless form and are cleared and settled through BI, which houses the central registry for government bonds. BI’s registration and settlement system is called the Bank Indonesia System for Clearing, Registering, and Information about Government Securities, or BI-SKRIP. Within this registry are the subregistries of onshore banks with which investors must set up a custodian account to trade government bonds. Since April 2003, all trades in government securities are cleared and settled in a DVP/RTGS process, although custodian banks submit clearing and settlement instructions to BI via a manual process. Settlement of
corporate bond transaction payments follows the same process as government bonds. Clearing of bonds, however, is carried out through the *Kustodian Sentrel Efek Indonesia*, the central depository for corporate bonds and securities. Standard settlement on government and corporate bonds is on a T+3 basis.
Republic of Korea

Background

The Republic of Korea has a very large domestic bond market—it was the largest in Asia after Japan until 2002, when preliminary figures indicate that the PRC may have become the largest bond market in the region. From 1997 to 2001, the bond market in the country grew by 62%. By the end of 2001, the total value of bonds outstanding was US$381.4 billion, equivalent to 90% of GDP. By the end of 2002, the volume of bonds had increased to won (W)577 trillion. During the 1990s, corporate bonds accounted for a growing share of the total bond market. In 2001, corporate bonds outstanding totaled W154.4 trillion, or 41% of the bond market overall.

Until 1997, corporate bond issuance in the Republic of Korea was controlled and interest rates determined administratively by the Government. In addition, most bonds were guaranteed by commercial banks, effectively tying the bond market to the banking sector. Although this practice enhanced the ability of the Government to implement its industrial policies through its preferred mechanism of the banking system, it exacerbated the 1997 Asian financial crisis. Prior to this crisis, the country’s corporate sector had one of the highest rates of leverage in the world. The slowdown in the Korean economy, combined with large currency devaluations, led to a rash of defaults and bankruptcies in the corporate sector, which in turn contributed to rising nonperforming assets of Korean financial institutions and their ultimate financial distress.

From 1997 to 2000, the Government made concerted efforts to address the problems of the banking sector and the corporate bond market. It issued a large amount of government securities to recapitalize and restructure banks. Defaulted bonds were systematically restructured through securitization, and banks have been prohibited from guaranteeing corporate bonds.

The Republic of Korea is now the largest asset-backed securities market in Asia, excluding Japan. This market grew from US$6.7
billion in 1999 to US$50.9 billion in 2001. Securitization was fostered by the urgent need to address the problem of nonperforming loans in the financial system, the need to increase liquidity for the financial sector, and the need for an alternative funding source for the corporate sector. To facilitate securitization, the Government enacted the Asset-Backed Securitization Law in September 1998. It is a comprehensive law and resolved most of the legal and regulatory issues associated with asset-backed securities and securitization. The law defined the term “asset-backed securitization” and specified the three main types of issuers of such securities: (i) a special-purpose company, (ii) a trust company under the Trust Business Act, and (iii) foreign companies specializing in asset securitization. In addition to this law, the Government passed the Mortgage-Backed Securitization Company Act in 1999 to foster development of residential mortgage-backed securities.

Because of a deliberate policy of prohibiting banks from guaranteeing corporate bonds, the share of nonguaranteed corporate bonds rose from only 8% in 1996 to 98% in 2001. This has transferred risk from the corporate sector to the capital market. In the process, it has increased the transparency of transactions and general corporate governance. Rating agencies, all of which are now associated with international rating agencies, have become more vigilant in credit risk assessment. General improvement in the economy and the sharp recovery in the stock market in 1999 and 2000 enabled the corporate sector to raise more equity capital and reduce leverage. The leverage ratio of major Korean companies is now comparable to that of US companies.

The Korean bond market is now the largest part of the Korean financial system (Figure A.6). The role of the bond market has increased notably since 1997 and the trend has continued unabated.

As of March 2003, the total outstanding amount of won-denominated bonds listed on the Korea Stock Exchange (KSE) stood at W577 trillion (US$480 billion), which is the same as nominal GDP and about twice the stock market capitalization. About one third of this total is government debt, and another third is state-owned enterprises (SOEs) and bank paper. The market is liquid. In 2002, the overall market turnover ratio was 4.1 times total outstanding and 8.1 times outstanding in the government sector. The bond market was fully liberalized in 1997 and most foreign exchange regulations were lifted in 1999.
The Republic of Korea’s regulatory framework has gone through substantial change since 1998. In 1997, the country was close to default on foreign exchange settlements because of the severe foreign exchange shortage faced by the financial system. On 21 November 1997, the Government had to turn to the International Monetary Fund (IMF) for a US$21 billion rescue package. One of the requirements of the IMF was that the country set up an effective and transparent regulatory framework, consistent with international standards, that would enable the country to restore the confidence of the international community.

Prior to April 1998, the Ministry of Finance and Economy (MOFE) had the ultimate power in controlling all facets of the financial system. MOFE was a very powerful ministry in the Republic of Korea before it relinquished some of its important functions to the Financial Supervisory Commission (FSC) and the Bank of Korea (BOK). Until then, MOFE established basic policies and supervised the overall operation of the securities markets by setting policies, interpreting securities laws, and authorizing the revocation of licenses for financial institutions. This led to excessive concentration of regulatory power, ineffective supervision of financial institutions, and failure of the system during the 1997 Asian financial crisis. The country’s financial supervisory system was completely overhauled in April 1998 under the Act on the Establishment of Financial Supervisory Organizations.

Sources: Bank of Korea and Financial Supervisory Commission.

**Figure A.6: Total Value of Commercial Bank Loans, Equities, and Domestic Bonds, Republic of Korea (W trillion)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Commercial Bank Loans</th>
<th>Equities</th>
<th>Domestic Bonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1994</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>1996</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>1998</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>2000</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>2002</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
</tbody>
</table>

Republic of Korea 67
The FSC is a unified financial supervisor for the securities, banking, insurance, and credit management funds sectors. Established in April 1998, it inherited most of the functions of the Korean Securities and Exchange Commission, which was abolished in February 1998. Although the FSC answers to the Prime Minister, its active duties are performed autonomously. It has nine members—chairman, vice chairman, and 7 commissioners. Most decisions within the FSC are based on the majority rule. All financial institutions in the Republic of Korea are supervised by the FSC and the Financial Securities System (FSS). The FSC’s duties include enforcing and rectifying supervisory rules, authorizing business activities, and overseeing the operation of financial institutions.

The Securities and Futures Commission (SFC) is an enforcement agency under the FSC to supervise the securities and futures markets. The SFC scrutinizes insider trading and price manipulation in the securities and derivative markets. It also oversees accounting standards and audit reviews and reviews regulatory and supervisory matters related to the securities and futures markets for the FSC.

**Issuers**

Figure A.7 shows the outstanding amount of bonds in the Republic of Korea by class of issuers during 1997–2001. A breakdown for 2002 is provided in Figure A.8.

**Figure A.7: Outstanding Amount of Bonds, Republic of Korea**

(W billion)

Instruments

**Government Securities**

*Korea Treasury Bonds (KTBs)*. MOFE issues KTBs based on the Government Bond Law. They are issued in tenors of 3, 5, and 10 years. The weighted average maturity was 5.8 years at the end of 2002. The 10-year KTB was introduced in October 2000 and accounts for roughly 20% of the total issuance. KTBs are sold through competitive auctions. Since March 2003, the coupon frequency has changed from quarterly to semiannual. MOFE is considering restarting the issuance of short-term T-bills (e.g., 3 months) and these may replace Certificates of Deposits as a short-term benchmark.

*Foreign Exchange Stabilization Fund Bonds (FESBs)*. FESBs are government bonds issued to stabilize the foreign exchange market and smooth out the monetary effect of the overseas sector. FESBs are issued in foreign currencies.

*Monetary Stabilization Bonds (MSBs)*. The BOK issues MSBs within the maximum issuance limit set at 50% of M2. MSBs are issued either as discount bonds up to 1.5 years or as 2-year coupon bonds (quarterly). Traditionally, the central bank used MSBs to absorb excess liquidity generated by current account surpluses. During the 1997 Asian financial crisis, BOK stepped up issuance of MSBs to absorb liquidity because of the surging foreign exchange reserves. Fourteen-day MSBs were frequently used at that time.
Currently, MSB auctions are focused on 1-year or 2-year tenors while 6-month or other tenors are less frequently issued. As one of the sovereign issues, MSBs constitute the short end of the benchmark curve.

**Municipal Bonds.** City and provincial governments issue municipal bonds to finance local projects. Provincial Development Bonds and Seoul Railway Bonds are the two major issues. Most of them are issued as annual compound bonds with maturities of 5–9 years.

**State-owned Enterprises.** Established in 1954 under the Korea Development Bank Act, the government-owned Korea Development Bank (KDB) has an exclusive right to issue Industrial Finance Bonds to finance long-term national economic growth. KDB bonds are issued as discount (1- and 3-year), quarterly compound (1-, 3-, and 5-year) or coupon (3-, 5-, and 10-year) bonds. Like FESBs, KDB bonds can be issued in foreign currencies. Outstanding won-denominated KDB bonds amounted to W24.5 trillion as of January 2003.

**Small and Medium Industry Finance Bonds.** The Industrial Bank of Korea (IBK) was established in 1961 under the Industrial Bank of Korea Act, with the purpose of promoting growth among the Republic of Korea’s small and medium enterprises. IBK is a government-controlled entity, with the Government holding 77.2% of the common stock. Bonds are issued as discount, compound, or coupon bonds with maturities of 1–5 years.

**Korea Deposit Insurance Corporation (KDIC) Bonds.** The Depositor Protection Act was enacted in 1995 and KDIC was established in 1996 to protect depositors of insured financial institutions and to maintain public confidence in the financial system. About 1,500 financial institutions are currently insured for over W600 trillion of deposits. KDIC has played a central role in the country’s financial restructuring process by supporting the resolution of debt problems of failed institutions. As of February 2003, KDIC’s total financial assistance for the restructuring of the financial industry stood at W103 trillion, including equity participation in and purchase of distressed assets. KDIC bonds are issued as 3- or 5-year coupon bonds and are guaranteed by the Government.

**Corporate Bonds**

Corporate bonds are issued through public offering or private placement. A third party can guarantee the repayment of corporate
bonds and historically guaranteed corporate bonds have been the most common type of bonds in the local market. For example, 82% of new corporate issuance carried a guarantee in 1997. As of January 2003, guaranteed bonds accounted for only 1.5% of total outstanding corporate bonds. Maturities are typically 1, 2, 3, or 5 years; the 3-year tenor is the most popular. As of the end of 2002, the outstanding amount of corporate bonds listed on the KSE was W152 trillion.

Repo trades have been mostly used by BOK for its open market operations or as one of the short-term retail products of banks and securities companies. These trades are strictly secured loans and thus repo buyers are not allowed to sell the collateral. The interdealer repo market has been less than 5% of the total repo traded in the market. All interdealer trades were carried out in the OTC market until the Government opened the KSE repo market. Since November 1999, the Korea Securities Depository (KSD) has provided a triparty repo service for OTC repo trading. In order to develop a liquid, transparent repo market, the Government introduced an electronic interdealer repo trading system in the KSE in February 2003. Underlying bonds are KTBs, MSBs, KDIC bonds, and AAA-rated corporate bonds. The KSE repo adopts Global Master Repurchase Agreement documentation and the KSE assumes counterparty risk for both sides.

**Primary Markets**

*Government Sector.* For the issuance of government bonds, BOK acts as an agent to MOFE without participating in any auctions. The annual KTB auction schedule is announced at the end of each year and the monthly auction details are released at the end of each month. Since July 1999, several changes have been implemented in the primary market. First, the introduction of the primary dealer system lowered the number of auction participants and standardized the auction process. Second, various types of government bonds have been consolidated as KTBs and made fungible within 6 months. More importantly, the auction rates have been set at the highest successful bid rate (a Dutch auction) since August 2000, reducing the winner’s curse problem. In addition, individuals are allowed to enter noncompetitive bids up to 20% of the total, which are filled at the average successful bid rate of each auction.
Corporate Bonds. Corporations can issue bonds in an amount of up to 4 times their equity capital. When securities firms underwrite corporate bonds, they are required to do so only on a fully underwritten basis. No prior approval is required for issuing corporate bonds, but corporations must submit an issuance report 8 calendar days in advance (or 6 days for guaranteed bonds) for the report to be validated. Corporate bonds are usually issued in original maturities of 1, 2, 3, and 5 years. Currently, more than 90% of the bonds outstanding have a maturity of less than 4 years, compared with 82% at the end of 1997.

Rating Agencies

Three local credit rating agencies (Korea Investor Services, Korea Ratings, and National Information & Credit Evaluation) are permitted to rate corporate bonds. Moody’s owns 50%+1 shares of KIS and Fitch has 7.44% ownership of Korea Ratings.

Foreign Issuers

In the past, foreign issuers were not active in the Korean market because of the complex regulatory requirements. In January 2003, FSC changed the regulation in order to facilitate the issuance of the won-denominated bonds by foreign issuers, i.e., Arirang bonds. Foreign issuers who follow International Accounting Standards or US Generally Accepted Accounting Standards (GAAS) are exempt from these requirements.

Secondary Markets

Although about 90% of bonds are listed on the KSE, more than 95% of the total trades take place in the OTC market. A bond’s listing on the KSE has largely become a formality designed to enhance its acceptability, because most institutional investors are not permitted to invest in unlisted securities. Securities companies charge only around 1 bps brokerage fees for the OTC bond trades. Typical minimum trade volume is W10 billion and yields are quoted on an after-tax basis. Same-day settlement has been the norm, but the minimum settlement period changed to T+1 in June 2003. Typical bid/ask spreads are about 5–10 bps. In order to enhance
market transparency, the Government opened the interdealer KTB market on the KSE in March 1999. Beginning January 2003, primary dealers are required to execute at least 40% of KTB trades in the interdealer market, including all of the on-the-run issues. With strong government support, exchange trading is expected to grow fast relative to OTC trading. Securities traded in either market are settled through KSD, the sole central depository for securities.

**Derivatives**

In 1999, the Republic of Korea lifted most of the existing restrictions on the foreign exchange market. All capital account transactions, except those on the negative list, were fully liberalized. The most significant proposal was to allow all domestic forward exchange transactions to be exempt from the “real demand principle” under which all forward exchange transactions must be certified as hedges against expected current account transactions. A forward foreign exchange market exists onshore and is liquid up to 1 year, with daily trading volume near US$1 billion. In the offshore market, nondeliverable forwards can be structured in tenors up to 10 years, but tenors up to 12 months are the most actively traded. Their daily trading volume is approximately US$700 million. Typical bid/ask spread is 30–100 bps and typical trading size is US$5 million onshore and US$2 million offshore. Since the foreign exchange market liberalization, the onshore/offshore spread has converged dramatically.

**Investors**

The composition of investors in the Korean bond market is shown in Figure A.9 below. Banks were the largest investors followed by the investment trust companies, insurance companies, and pension funds.

**Banks**

As of the end of 2002, banks held W71.7 trillion or about 70% of the total outstanding amount of bonds. More than 90% of the total securities held by the banking sector are classified as long-term investment. Although banks have short liability duration, they tend
to buy and hold government bonds. FSC advises Korean banks to keep the BIS ratio higher than 10%. As of December 2002, the average BIS capital adequacy ratio for 22 banks stood at 11.3%. Traditional lending activity has been cautious since the 1997 Asian financial crisis while deposits grew rapidly in 1998 and 1999 under the KDIC’s full deposit insurance coverage. The surge in liquidity has flowed mainly into the government bond market.

**Life Insurance Companies**

The Korean life insurance industry ranks sixth in the world with annual insurance premiums of US$44 billion as of 2000. The ratio of premiums over GDP is second only to the UK. Before April 2000, promised policy yields were regulated and fixed-return policies were the main products offered by life insurance companies. As interest rates have decreased substantially over the past two years, guaranteed fixed-return policies have become a big burden to the life insurance industry. Currently, all new investment-type policies are sold with floating-rate features. Investment returns (expected as well as historical) and market rates (in most cases, 3-year KTB, 3-year corporate, and 1-year term deposit) are used in designing floating-rate products. Fixed-income instruments in the country

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**Figure A.9: Major Bond Investors as of the End of 2002, Republic of Korea**

<table>
<thead>
<tr>
<th>Investment Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks</td>
<td>45</td>
</tr>
<tr>
<td>Life Insurance</td>
<td>24</td>
</tr>
<tr>
<td>Investment Trust Companies</td>
<td>10</td>
</tr>
<tr>
<td>Pension Funds</td>
<td>7</td>
</tr>
<tr>
<td>Others</td>
<td>14</td>
</tr>
</tbody>
</table>

Sources: Korea Securities Dealers Association and Financial Supervisory Commission.
traditionally have been short-dated. Even after the introduction of the 10-year KTB in October 2000, the total supply duration in the market has been insufficient relative to demand. Insurance companies have had difficulties covering the duration of their liabilities.

**Investment Trust Companies**

Based on the Securities Investment Trust Law in 1969, investment trust companies (ITCs) were set up to distribute and manage UK-style unit trusts in the Republic of Korea. ITCs offer stock funds, bond funds, and mixed funds. There are also money market funds, which are funds that invest in fixed-income securities maturing within 120 days. This industry has been the focal point of the financial market turbulence since the 1997 Asian financial crisis. ITCs experienced tremendous growth in total assets in 1998. The majority of this flow is explained by the high fixed rate of return that the ITCs were offering on their beneficiary certificates (BCs) at that time. ITCs used this liquidity to buy corporate paper. By offering these high returns, ITCs essentially underwrote the surge in corporate issuance in 1998. Since the collapse of the Daewoo group and the introduction of mark-to-market accounting in July 2000, the transparency of the industry has improved. Fixed-return BCs have been replaced by BCs that pass market risks along to the investor in a transparent manner.

**Pension Fund**

Since its establishment in September 1987, the National Pension Corporation has grown at a stunning 44.7% average annual growth rate during 1988–2002 (Figure A.10). The national pension plan covers the entire public, including foreigners residing in the country. The contribution rate has gradually increased from 3% to 9% of standard monthly income. Because the eligible age for the old-age pension is 60, there is strong need for duration, as in the case of life insurance companies. The National Pension Corporation has rapidly increased bond investment since 2000 and has become one of the major investors in the market.
Foreign Investors

With accession to the Organisation for Economic Co-operation and Development (OECD) at the end of 1996, the schedule for market liberalization accelerated. In December 1997, the Republic of Korea fully opened the domestic capital market to offshore investors as part of the terms in accepting the IMF-sponsored bailout package. As of end-2002, foreigners held W647 billion worth of domestic bonds, about 0.1% of the total outstanding amount. Compared with 35% foreign ownership of the domestic stock market, foreigners have been inactive in the local bond market mainly because of the low interest rate.

Taxation

The definition of a Korean resident is an individual who has a domicile or has been residing in the country for at least 12 months. Under the Income Tax Law, taxation of nonresidents depends on whether they have a permanent establishment, such as an office or a factory. A nonresident who has a permanent establishment faces tax liabilities that are identical to those faced by a resident. A Korean resident pays 9%–36% individual income tax for aggregate income, but a 16.5% separate tax rate applies up to W40 million of interest.
and dividend income. Residents do not pay capital gains tax on securities transactions. In contrast, the base tax rates for foreigners are 27.5% for interest income as well as capital gains. For capital gains, 11% of total sales proceeds may apply if the amount is lower than 27.5% of capital gains. Tax rates are often reduced or completely exempted under applicable double taxation treaties, or agreements between the Republic of Korea and the investors’ countries. As a result, most foreign investors do not pay capital gains tax. Applicable tax rates for interest income for foreigners are 0%–16.5%, mostly 10% or 15% (Table A.2). Currently, 55 countries have double taxation treaties with the Republic of Korea.

Table A.2: Interest Income and Capital Gains Tax, Republic of Korea

<table>
<thead>
<tr>
<th>Interest income</th>
<th>Capital gains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base rate</td>
<td>27.5%</td>
</tr>
<tr>
<td>Capital gains</td>
<td>27.5% or 11% of proceeds</td>
</tr>
<tr>
<td>With DTA</td>
<td>0%–16.5%</td>
</tr>
<tr>
<td></td>
<td>0%*</td>
</tr>
</tbody>
</table>

DTA = double taxation agreement.

* Investors from Australia, Brazil, Germany, Luxembourg, Singapore, and Thailand are subject to base rates despite double tax agreements.

Source: Korea National Tax Service.

The general principles guiding the taxation of Korean fixed-income products are as follows: Profits on the sale of zero-coupon bonds are treated mainly as interest income. Consequently, while most investors face a zero capital gains tax liability, there is little incentive for buying zero-coupon bonds versus coupon bonds. Profits on the sale of market-rate coupon bonds are deemed capital gains, while coupon interest is taxed at the income tax rate. Profits on the sale of deep discounted bonds are apportioned between coupon income and amortized interest income rather than capital gains. Therefore, there is no incentive to buy deep discounted bonds. However, there is an incentive to buy bonds that were historically issued at at-market coupons but which now have below-market coupons since these will have a price below par. Because they were considered “market-rate coupon bonds” at the time of issue, tax is only levied on the coupon interest and any capital gains are tax exempt.
Clearing and Settlement

The Republic of Korea has a sophisticated clearing and settlement system. KSD’s role includes critical clearing, settlement, and custody functions in the Korean securities industry. By the end of 2001, KSD, a nonprofit organization, had 96 shareholders and 468 participants. The 96 shareholders are securities companies, banks, insurance companies, investment and trust companies, and other financial institutions.14

An amendment to the Securities and Exchange Act in 1993 established the legal basis for KSD’s depository business. The amended law defined KSD as a special public organization designed to enhance credibility and public perception as the only central securities depository in the country. In addition, the amendment granted KSD the legal basis to perform cross-border custody, clearing, and settlement for securities. Because the major role of KSD is critical to the Korean securities market, KSD is subject to the supervision of MOFE, FSC, and FSS.

All trades executed on the KSE or OTC are cleared on the basis of net balance. This net balance is settled through the book-entry transfer system operated by KSD. Trades initiated by institutional investors and executed by their broker/dealers can be confirmed, affirmed, and settled by book-entry deliveries for securities and by money transfer between the two parties through KSD. Domestic bonds are usually settled on T+0 while the settlement cycle for equity-type debt instruments (e.g., convertible bonds) is T+2. FSC changed the minimum settlement period from T+0 to T+1, which applied from June 2003.

14 Korea Securities Depository 2002.
Malaysia

Background

Malaysia has one of the most robust bond markets in Asia. At the end of 2002, the size of its bond market was US$72 billion or 75.9% of GDP. This was the highest ratio among all the East Asian countries.

The bond market in Malaysia has developed significantly in terms of market size, the range of its instruments and products, and its level of market efficiency. The progress made has enhanced the role of the bond market in supporting economic growth and transformation. In particular, these developments have been geared toward developing the capital market to complement the role of traditional lenders.

The Malaysian economy grew by 4.1% in 2002, up from 0.3% in 2001. On the expenditure side, the relatively strong GDP expansion for 2002 was fuelled by strong exports and public sector demand. Interest rates remained low throughout 2002 because of the absence of inflationary pressures and excess liquidity in the system. Total financing from the banking system and capital market expanded by 9.9% in 2002.

In the primary market, outstanding bonds remained high at ringgit (RM)273.7 billion (US$72 billion) in 2002. Private debt securities (PDS) accounted for 38% of the total outstanding amount (Table A.3), compared with Malaysian Government Securities (MGS) 42%, quasi-government papers 11.7%, and National Mortgage Corporation (Cagamas) 8.3%. Total outstanding PDS declined by 11.7% during 2002 to RM103.9 billion (US$27.3 billion) because of redemptions and refinancing of bond issues by the corporate sector in the wake of a favorable interest rate environment.

Among PDS instruments, Islamic PDS (IPDS) and asset-backed securities registered strong growth during 2002. Outstanding IPDS increased by 35% to RM43.9 billion, while asset-backed securities surged by 146% to RM3.0 billion. New sovereign, quasi-sovereign, and PDS instruments coming into the market amounted to roughly RM39.8 billion.
Regulatory Framework

*Bank Negara Malaysia (BNM)*. The initial regulatory framework for the PDS market was first established by BNM, via the issuance of the PDS Guidelines in January 1989. The guidelines were designed to ensure orderly development of the market and to protect investors. The regulatory framework marked a major milestone in the development of the Malaysian bond market.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Government</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysian Government Securities</td>
<td>103,450</td>
<td>109,550</td>
</tr>
<tr>
<td>Government Investment Issues</td>
<td>4,000</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>107,450</td>
<td>114,550</td>
</tr>
<tr>
<td><strong>Central Bank</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Negara Malaysia</td>
<td>0</td>
<td>464</td>
</tr>
<tr>
<td><strong>Quasi Government</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khazanah</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Danaharta</td>
<td>11,140</td>
<td>11,140</td>
</tr>
<tr>
<td>Danamodal</td>
<td>11,000</td>
<td>11,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>32,140</td>
<td>32,140</td>
</tr>
<tr>
<td><strong>Mortgage Corporation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cagamas</td>
<td>18,427</td>
<td>22,595</td>
</tr>
<tr>
<td><strong>Private Corporation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional&lt;sup&gt;a&lt;/sup&gt;</td>
<td>83,953</td>
<td>57,045</td>
</tr>
<tr>
<td>Islamic</td>
<td>32,486</td>
<td>43,865</td>
</tr>
<tr>
<td>Asset-backed securities</td>
<td>1,235</td>
<td>3,041</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>117,674</td>
<td>103,951</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>275,691</td>
<td>273,700</td>
</tr>
</tbody>
</table>

Note: The amount above excludes short-term papers and medium-term notes.<br><sup>a</sup> Includes loan stock.<br>Source: *Bank Negara Malaysia*. 
Prior to July 2000, the issuance of bonds was deemed to be “deposit taking,” an activity that is regulated by BNM. Hence, the approval of BNM was required for any issuance of bonds. The requisite approvals granted for the issuance of bonds were made pursuant to the Banking and Financial Institutions Act 1989, which provides that other than a licensed financial institution, no person shall receive, take, or accept deposits unless authorized.

Effective 1 July 2000, the approving authority for the issuance of PDS was transferred from BNM to the Securities Commission (SC) following the rationalization to place the regulation of all fund-raising activities in a single authority. BNM, however, continues to support and provide the system infrastructure for capturing, processing, and dissemination of information on all unlisted debt securities activities in Malaysia.

Securities Commission. The SC was established on 1 March 1993 pursuant to the Securities Commission Act of 1993 with the power to regulate the issuance of and the dealings in securities, to encourage the development of the securities market, and to curb improper dealings. The SC also regulates all matters pertaining to unit trusts and takeovers and mergers. Prior to the establishment of the SC, the power to regulate the issue of new securities was vested in the Capital Issues Committee (CIC), while all matters pertaining to takeovers and mergers were vested in the Panel on Takeovers and Mergers. Both the CIC and the Panel were dissolved upon the establishment of the SC. Effective 1 July 2000, the SC is the single approving and registering authority for prospectuses with respect to all private debt securities other than securities issued by unlisted recreational clubs.

Registrar of Companies (ROC). The ROC under the Ministry of Domestic Trade and Consumer Affairs has extensive powers under the Companies Act of 1965, which lays down the statutory requirements and policies on disclosure of information. In general, a prospectus must accompany an invitation to the public to deposit money or lend money to a corporation. The Act also further requires that the prospectus be registered with the ROC and contain an undertaking that the corporation will, after the acceptance of any money or deposit or loan, issue to that person a document acknowledging the indebtedness. However, exemption from the prospectus requirement is provided under Section 47B of the Companies Act of 1965 for PDS issued to a prescribed corporation,
insurance company, trustee corporation, statutory body, pension fund, unit trust scheme, licensed dealer or investment adviser, foreign incorporated companies, public company engaged primarily in the making of investments in marketable securities, and other such purchasers the minister may declare to be exempt. The recently gazetted Companies (Exempt Purchasers) Order of 1997 has declared the exempt purchasers to include a licensed fund manager, a person who acquires shares or debentures as principal for a value of not less than RM250,000, individuals whose total net personal assets exceed RM3 million, corporations with total net assets exceeding RM10 million, and a licensed offshore bank and offshore insurer in Labuan.

**Debt Securities in the Ringgit Bond Market**

*Malaysian Government Securities.* MGS are coupon-bearing long-term bonds issued by the Government of Malaysia to raise funds from the domestic capital market. Benchmark MGS are issued according to the Government Securities Auction Calendar, which is updated from time to time depending on the Government’s financing needs. The benchmark MGS are widely used by market participants as a reference to price long-term debt securities. MGS are issued by way of tender through principal dealers or via private placement to selected institutions approved by the Ministry of Finance. For new issues issued via tender, submission of bids is on yield basis and the coupon is market-determined based on the weighted average of the successful yield of the issue and is payable semiannually.

*Malaysian Treasury Bills (MTBs).* MTBs are short-term government securities issued by the Government of Malaysia. MTBs are issued on a discount basis and the holders are paid the nominal amount on the maturity date. In the primary market, MTBs are issued through weekly tenders via principal dealers. In the secondary market, MTBs are also classified into band trading.

*Government Investment Issues (GII).* GII are government bonds issued under the Government Investment Act, 1983 based on Islamic principles. In the past, GII were issued under the concept of *Qardhul Hasan* (benevolent loan). Currently, the issues of GII are under the concept of *Bai’ Al-Inah*. GII are noninterest bearing government bills that enable the participating institutions to meet
their liquidity requirements according to Islamic principles. In the primary issue, submissions of tenders are channeled through Islamic banks and principal dealers.

Bank Negara Malaysia Bills. BNBs are short-term securities with maturities not exceeding 1 year issued by BNM for its short-term money market operations. BNB issues are offered to principal dealers through competitive auction. The yield bid is specified as a discount rate and expressed in three decimal places. The tenors of BNB are expressed in actual number of days. BNB are classified into band trading according to number of days remaining to maturity for trading purposes.

Bank Negara Negotiable Notes (BNNNs). BNNNs are Islamic short-term securities issued by BNM with maturities not exceeding 1 year. The issuance of BNNNs will be based on the principle of Bai’ Al-Inah. In the primary issue, tenders for BNNNs will be submitted on exact purchase price (proceeds) basis through Islamic banks and principal dealers.

Cagamas Instruments

Floating Rate Bonds. These bonds are of medium/long-term tenor with an adjustable coupon rate. The interest is payable either semiannually or on a quarterly basis.

Fixed Rate Bonds. These bonds are fixed-coupon medium-/long-term bonds where the interest is payable semiannually.

Cagamas Notes. These notes are short-term securities with a tenor of 12 months or less. The notes are similar to MTBs and normally issued at a discount.

Islamic Notes — Al Mudharabah

These debt securities are of medium-term tenor issued under the Islamic principle of Al Mudharabah (mutual fund) with a predetermined profit-sharing ratio.

Commercial Papers

CPs are short-term revolving promissory notes with a tenor not exceeding 1 year. The mode of issue of CPs can be on private placement and/or tender. Conventional CPs are tendered on a yield
basis and expressed to three decimal places. Islamic CPs are tendered on an exact purchase price basis.

**Medium-term Notes**

Medium-term notes (MTNs) are instruments with a tenor of more than 1 year. This instrument is an alternative to short-term financing in the CP market and long-term borrowing in the corporate bond market. The mode of offering MTNs in the primary market can be on private placement and/or by way of tender. If issued on tender, the tender basis can be either on yield, price, or exact purchase price depending on the structure of the approved MTNs.

**Corporate Bonds**

Corporate bonds are long-term scripless securities (conventional or Islamic), which can be interest-bearing, profit-based or discounted instruments (e.g., zero coupon) with a tenor of more than 1 year.

The interest-bearing bond and profit-based bond may have a fixed or floating coupon rate depending on the structure of the approved facility. For zero-coupon bonds, the securities are issued at a discount without any periodic interest/coupon, and the final redemption is equal to par/nominal value.

The issuance of bonds can be privately placed to several investors, on a nonbidding basis to a single primary subscriber or tendered to the tender panel member identified by the lead arranger. If issued on tender, the tender basis can be either on yield, price, or exact purchase price depending on the structure of the approved corporate bonds.

**Khazanah Bonds**

*Khazanah* bonds are issued by *Khazanah Nasional Berhad*, an investment arm of the Government. They are long-term zero coupon bonds issued based on the Islamic principle of *Murabahah*. The issuance of *Khazanah* bonds is by auction on a competitive basis via the principal dealers’ network. Submission of bids is on price/100 basis.
Combination CP/MTN Program

The combination CP/MTN program allows the issuer to invite tender on CPs and MTNs simultaneously without breaching the approved facility limit. The issuer then has the flexibility to draw down CPs, MTNs, or a combination of both subject to the available facility limit. The offer for CP/MTN can be on tender and/or private placement.

Asset-backed Securities

Asset-backed securities are a form of debt securities (that are backed by specific underlying assets) issued pursuant to a fund-raising process of asset securitization.

Loan Stocks/Loan Notes

Loan stocks and notes are hybrid debt securities that can be redeemable/irredeemable and/or convertible/nonconvertible into shares. The tradability and conversion feature of these instruments in the secondary market is dependent on the terms and conditions of the approved structure.

Fiscal and Financial Incentives

- January 1989. Waiver from stamp duty for all instruments relating to the issue and transfer of company bonds sanctioned by BNM.
- January 1992. Tax exemption on interest earned by individuals investing in bonds (other than convertible loan stock) issued by public companies listed on the Kuala Lumpur Stock Exchange.
- January 1993. Tax exemption on interest earned by individuals investing in bonds (other than convertible loan stock) issued by a company rated by Rating Agency Malaysia Berhad or Malaysian Rating Corporation Berhad.
- October 1994. Withholding tax for foreign investors on interest earned was reduced from 20% to 15%.
- January 1996. Tax exemption on interest income received by unit trusts and listed closed-end funds from corporate bonds (other than convertible loan stock).
• January 2000. Waiver from stamp duty for all instruments relating to the issue and transfer of private debt securities approved by BNM or the SC.
• January 2000. Stamp duty exemption on the instruments executed on or after 30 October 1999 but not later than 31 December 2000 for the purpose of securitization.
• January 2001. Transactions relating to the issuance of asset-backed securities exempted from stamp duty.

**Market Players**

The players in the bond market are lead arranger, co-arranger, facility agent, underwriter, guarantor, principal dealers, tender panel member, market maker, authorized depository institution, central depository, trustee, registrar, paying agent, money brokers, and rating agencies.

**Bond Market System Infrastructure**

*Fully Automated System for Issuing/Tendering (FAST)*. FAST is the sole data entry system that captures primary issues of unlisted debt securities and money market instruments regardless of its mode of issue, tender or nontender. In relation to primary auction, FAST enables invitations to tender, submission of bids, and processing of tenders to be done electronically. Basically, it provides the initial input of primary market activities. Over the years, FAST has improved the overall efficiency of the tendering process by minimizing errors and delays and eliminating potential disputes that may arise from manual handling of tender procedures. Membership in FAST is currently open to licensed financial institutions (i.e., commercial banks, merchant banks, discount houses, and Islamic banks), Cagamas, development financial institutions, insurance companies, universal brokers, statutory bodies, other financial bodies, and market participants, as approved by BNM.

**Settlement System**

The Real-time Electronic Transfer of Funds and Securities (RENTAS) system is a gross settlement system in which processing and
settlement of funds, transfer instructions, and scripless securities transactions take place simultaneously. For primary issues, the results of the tender for Scripless Securities Trading System (SSTS) securities conducted via FAST will be linked to RENTAS for allotment of securities and funds transfer. For the secondary market, the RENTAS system is used to process and settle SSTS securities. The system, apart from facilitating electronic settlement on a DVP basis both for primary issues and the secondary market, also eliminates completely the dangers of loss, theft, and destruction of scrips.

The members of RENTAS are the financial institutions licensed under the Banking and Financial Institution Act of 1989 or the Islamic Banking Act 1983, universal brokers approved by BNM, and Cagamas.

The RENTAS Participation Rules govern its operations. Participants must also comply with The Rules on Scripless Securities under the RENTAS System issued by BNM.

**Bond Information and Dissemination System**

The Bond Information and Dissemination System (BIDS) is a computerized centralized database that provides information on the Malaysian debt securities market. BIDS offers information on the terms of issues, weekly indicative yield-to-maturity, quotations on benchmark securities, advertisements for trading, details of trades transacted, and relevant news on the various debt securities issued by the Government, BNM, and the private sector. The transparency of information provided by BIDS is expected to improve both primary and secondary activities in the domestic bond market.

Membership in BIDS is currently open to licensed financial institutions (commercial banks, merchant banks, finance companies, discount houses, and Islamic banks), Cagamas, the rating agencies, money brokers, universal brokers, insurance companies, and other market participants, as approved by BNM.
Philippines

Background

Philippine Government debts have increased every year since 1997 (Table A.4). External debt has increased at a faster pace than domestic debt as the Government has resorted to international capital markets to take advantage of relatively lower market rates. It is estimated by Moody’s that about 48% of fiscal deficit have been financed through external borrowing.

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>30,634</td>
<td>20,810</td>
<td>25,030</td>
<td>24,173</td>
<td>24,469</td>
<td>28,667</td>
</tr>
<tr>
<td>External</td>
<td>26,200</td>
<td>28,638</td>
<td>34,561</td>
<td>33,748</td>
<td>34,190</td>
<td>38,166</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56,834</strong></td>
<td><strong>49,448</strong></td>
<td><strong>59,591</strong></td>
<td><strong>57,921</strong></td>
<td><strong>58,659</strong></td>
<td><strong>66,833</strong></td>
</tr>
</tbody>
</table>

Notes: Domestic debt outstanding includes T-bills.
Sources: World Bank and Department of Treasury, Government of the Philippines.

In 2002, the domestic bond market amounted to about peso (P)1.4 trillion (US$27 billion) or 35% of GDP and overtook equities to become the second largest part of the Philippines financial system (Figure A.11). The Philippines bond market has been dominated by the government sector since 1997 to finance fiscal deficits that have averaged around 5% of GDP per year. This may be one of the reasons for the underdevelopment of the corporate bond market, which accounted for about 7% of the bond market. There are only two bond issues listed on the Philippines Stock Exchange.

Investors

The largest investors in government securities are banks, trust funds, and the Social Security System.
Banks. Banks are the dominant investors in the market, investing about P540 billion (17% of their assets) in national government debt, comprising over a third of total outstanding domestic government debt. Deposit and lending rates are fully liberalized in the Philippines, with most assets and liabilities priced on a floating rate basis relative to either 91-day or 365-day Treasury rates. Banks, therefore, have no natural demand for long-dated securities; however, the 0% risk weighting on investment in government debt is an incentive, especially because many banks do not meet the 10% capital adequacy ratios required under the General Banking Act Capital Adequacy Requirements. Starting 1 July 2001, under this Act, banks adopted BIS-style guidelines for capital adequacy. Initially, the guidelines covered only credit risks, with guidelines on market risk introduced later. The total capital adequacy requirement is set at 10% (compared with the typical BIS level of 8%), with 5% in Tier 1 capital. Risk-weightings are set as per BIS guidelines, e.g., Philippine Government and OECD government paper will be 0% risk weighted, with up to 100% risk weighting for general loans.

Trust Funds. The role of trust funds in the Philippines financial system is similar to that of mutual funds in other countries because the General Banking Act excludes banks from owning and distributing mutual fund shares. The total trust industry, as of end-2002, stood at about P600 billion. Of this, P257 billion or 43% of total assets was invested in national government debt. About 95% of these investments were in national government paper. The balance was invested in corporate paper, foreign bonds, and common stocks.

Figure A.11: Value of Commercial Bank Loans, Common Stock, and Domestic Bonds, Philippines (P billion)

Sources: Department of Finance and Bangko Sentral ng Pilipinas.
of trust fund assets are managed in the trust departments of banks, with the remainder being managed by thrift banks and investment houses.

Social Security Organizations. The Social Security System (SSS) is a partially funded, state-run pension scheme modeled on the social securities scheme in the US run solely for private sector employees. The SSS also invests in the government bond market, via private OTC placements rather than directly participating in auctions. The Government Service Insurance System (GSIS) is the government-run pension scheme covering government employees and at the same time covering the insurance requirements of the Government. The GSIS is a tax-exempt institution and when it does buy bonds, it also uses the OTC method, rather than participating directly in the market. As of end-2002, GSIS had total assets of P171 billion, of which about 10% was invested in bonds.

Life Insurance Companies. As a developing country with a low savings rate, the life insurance sector is still relatively small, with total assets of about P145 billion (3.6% of GDP) at the end of 2002. Life insurance companies currently invest about a third of their assets in government bonds. Despite its small size, the life sector has been growing fast and the supply of long-term bonds in the market is still only a fraction of the sector’s requirement for asset/liability management purposes. Life insurance companies are predominantly buy-and-hold investors in the 10–25 year sector. In the long end of the yield curve, therefore, liquidity can be very poor.

Regulatory Framework

The government securities market in the Philippines is regulated by the Department of Finance and implementation is carried out through the Treasurer of the Philippines. The Bureau of Treasury implements the regulations on a day-to-day basis. Corporate debt markets, both primary and secondary, are the responsibility of the Securities and Exchange Commission (SEC). The Bangko Sentral ng Pilipinas (BSP) regulates dealers that are financial institutions under its supervision. SEC regulates securities dealers.
Debt Instruments in the Philippine Market

T-bonds and T-bills are still the main investment vehicles for institutional investors, but the Government has also developed special purpose issuance such as dollar-linked notes and taxable promissory notes to answer particular investor needs. These innovations have allowed the Government to minimize supply affects in the T-bond market by tapping specific pools of liquidity. There has been a move to diversify the domestic investor base, focusing initially on development of the retail sector. Major instruments available in the Philippine market are listed below.

**Standard Government Issues**

*Fixed Rate Treasury Notes (FXTNs).* FXTNs are issued by the Bureau of Treasury on behalf of the Republic. They are issued in 2-, 3-, 4-, 5-, 7-, 10-, or 20-year tenors with semiannual coupons. (There was also one 25-year issue in November 2000, although this is not standard.) FXTNs are the most important element in the Department of Finance’s (DOF) funding strategy, and have played an increasingly important role in recent years, in line with the objective of lengthening the Government’s liability profile. FXTNs are available on the Bloomberg system.

*Treasury Bills.* T-bills are obligations of the Republic, and come in 91-day, 182-day, and 365-day tenors. T-bills of shorter than 91-day tenors are referred to as Cash Management Bills. In recent years, the Government has sought to reduce the total stock of T-bills. The 91-day T-bill rate still provides an important benchmark yield for the market.

*Dollar-Linked Peso Notes.* These are special purpose government issues. They are peso denominated Treasury Notes where cash flows are determined by the level of the US dollar/peso exchange rate. To date, this structure has been used sparingly by the Government and there are only 4 issues currently outstanding.

*Retail Treasury Bonds* (RTBs). RTBs are issued as an alternative investment vehicle to bank deposits for retail investors. In April 2001, under the RTB, the Government began issuing T-bills, in minimum denominations of P5,000, with quarterly paying. This has since become an important funding tool for the Government. In June 2002, the Government raised P63 billion, more than a quarter
of total gross issuance that year, in a retail offering that was about 10 times oversubscribed. This dramatically changed the balance of the market for months thereafter.

*Fixed Rate Promissory Notes.* These are taxable notes that are considered as a loan for accounting purposes. They are attractive for banks seeking to show new lending on their balance sheets, while simultaneously reducing nonperforming loan ratios.

*Special Series (SST) T-bills.* SST-bills are issued to commercial banks at yields of normally 50 basis points below the market yield. Banks are required to hold SST-bills as one means of meeting reserve requirements. As such, the outstanding stock of SST-bills grows at about the same pace as the commercial banks deposit base.

**Primary Market**

Only government securities eligible dealers (GSEDs), dealers regulated and licensed by SEC and BSP, are allowed to participate in government bond auctions on a competitive basis. Other financial institutions may participate via noncompetitive bid, however. Specifically, GSEDs are required to interface with the Automated Debt Auction Processing System, and the official Registry of Scripless Securities (RoSS) using Bridge Information Systems. RoSS is the central electronic registry for all government bonds, and is run by the Bureau of Treasury.

FXTNs are typically auctioned through a uniform price, or Dutch auction, process. Bids are made in yield terms. T-bills are issued as zero-coupon discount instruments and with a 20% withholding tax applied at the point of sale. T-bill auctions follow the English auction system. While the auction method is by far the most common method for issuing in the primary market, the Government from time to time uses the tap method for new issues and has also recently used OTC offerings of old issues. The Government also uses the OTC sale method available to government- owned or -controlled corporations (GOCCs), tax-exempt institutions, and local government units.

**Corporate Bonds**

The bond market has never been a particularly important source of funding for Philippine companies. Thus far, only two companies
have registered bonds with SEC. Both foreign and domestic issuers are governed by the same regulation under Chapter III of the SEC Regulation Code. Issuers must file a registration with the SEC, although exceptions are granted for issues to less than 19 investors, and issues guaranteed by the Government, or any foreign government with which the Philippines enjoys diplomatic relations. Issuers are required to pay SEC a fee of not more than 10 bps. Most corporate debt issued comes in tenors of less than 1 year in the form of commercial paper. The issuance requirements differ slightly between commercial paper and corporate bonds. For example, commercial paper requires that issuers obtain a credit rating from the sole ratings agency, PhilRatings, whereas no rating is required for corporate bonds. Conventionally, commercial paper is underwritten, whereas corporate paper is most often issued via a Dutch auction process.

**Secondary Markets**

The secondary market is regulated by SEC in consultation with BSP. Transparency and price discovery have shown marked improvement in recent years, assisted by the market's self-regulatory body, the Money Market Association of the Philippines, comprised of over 60 financial institutions. Real-time pricing is available from a number of sources including Reuters Telerate and Bloomberg.

**Derivatives**

The basic principle of BSP continues to be that foreign currency may be freely bought and sold against the peso outside the banking system. Hence, there is no prohibition against, for example, exporters selling foreign currency directly to importers or even to private investors. Foreign exchange regulations focus primarily on transactions by banks and their subsidiaries and affiliates, and the specific rules and restrictions depend on the nature of the transaction as well as the type of counterpart, whether interbank, customer or “other” transactions. No offshore interest rate swap market exists, but a cross-currency swap market does trade, albeit with low liquidity.
Taxation

In the domestic T-bill market, a 20% final withholding tax is levied on the discount component upon issuance of the T-bills by the Bureau of Treasury subsequent to an auction participated in by domestic commercial banks and local branches of foreign banks. No other tax is levied on subsequent transfers of T-bills in the secondary market. For corporate bonds, a final withholding tax of 20% is also levied on the coupon on its paying date. This 20% final withholding tax rate on government and corporate bonds is based on Philippines domestic tax rates, which could be reduced to 15% under several tax treaty provisions.

Clearing and Settlement

Government securities are settled through the RoSS interface system, providing electronic settlement of government securities. All member banks have securities accounts with the Bureau of Treasury, which issues the government securities and administers RoSS. RoSS was designed from the start to use DVP with BSP as the settlement bank. However, at present, settlement is not done on a real-time basis, because RoSS securities transfer is not simultaneous with the BSP’s settlement system. BSP’s accounting system is not yet geared for trade-for-trade settlement. Therefore, the Bureau of Treasury nets the day’s trades before referring to BSP for same-day settlement. Debiting/crediting of settlement accounts with BSP of the buyer/seller of securities will not be possible if the seller’s securities are insufficient. Corporate bonds are cleared through a separate DVP system between the institutions. There is no central clearing system for corporate bonds.
Singapore

Background

Singapore’s debt market is one of the most efficient and transparent markets in the world. Until 1995, the bond market played a limited role in Singapore’s financial markets. Banks and equity markets were the major components. Over the past few years, the Singapore Government Securities (SGS) market has grown rapidly, averaging above 20% per annum. The size of bond market at the end of 2002 was about US$57.6 billion, or 63.8% of GDP compared with 27.4% for Hong Kong, China (see Table 3.1).

Since the 1997 Asian financial crisis, the Monetary Authority of Singapore (MAS) has made concerted efforts to develop domestic bond markets. Since then the local corporate bond market has nearly trebled in size to S$48.4 billion at the end of 2002. (Figure A.12)

Figure A. 12: Total Outstanding Singapore Government Securities and Corporate Bonds (S$ billion)

Source: Monetary Authority of Singapore.
The bond market in Singapore has developed rapidly despite consistent fiscal surpluses; there has been no need to borrow to fund expenditures. The Government has highlighted three reasons for the issuance of SGS: (i) to provide investors with a liquid and relatively risk-free investment alternative, (ii) to provide a pricing benchmark for corporate debt securities, and (iii) to encourage the development of skills relating to fixed-income financial services in Singapore.

The Singapore Government bond market exists solely for the development of the broader debt market. The Government has for the most part run a persistent fiscal surplus, except for 2001 and 2002 with minor deficits of S$1.4 billion and S$25.9 billion, respectively. Singapore has an extremely healthy cash reserve position. The problem for Singapore is how to achieve adequate returns on the abundant local liquidity and this has been the motivation behind the market development.

**Total Outstanding SGS and Corporate Bonds**

In 2002, the pace of growth slowed in the bond market with the corporate market slowing the most. In the SGS market, demand for SGS declined with a slower increase in bank statutory reserves because banks make a large part of the SGS investor base and growth in bank liabilities decelerated from a 12% high at end-2001 to 2.3% year-on-year in 2002. The slowdown in corporate issuance in 2002 was a result of fewer mergers, corporations not wanting to add more debt onto their balance sheets in a weak global and local economy, and a reduction in appetite for local corporate paper. As rates moved lower relative to the rest of the world and in absolute terms, demand for non-Singapore dollar-denominated paper increased. This was further helped by MAS relaxing restrictions on insurers, which allowed them to increase their limits on cross-currency asset swap transactions.

**Market Composition**

The SGS market has over the past decade been the largest contributor to the overall bond market. This has largely been a function of government regulations that require banks to hold SGS for reserve purposes and more recently with the Government
liberalizing the Central Provident Fund (CPF) investment accounts. SGS account for 54% of the total bond market size (Figure A.13).

In the corporate market, as was the case in 2001, issuance by special purpose vehicles (SPVs) made up the largest part of the new issuance market. Issuance through SPVs has become increasingly popular over the past two years, because they are able to offer higher yields than ordinary securities.

The next largest issuers are foreign entities. Issuance by foreign entities increased under a stable exchange rate environment and the relatively low interest rates locally. Following closely behind foreign entities are the property companies. Property companies continue to be one of the top three issuers in the market despite the weak property market. As traditional borrowing avenues through banks shrink, property companies have had to enter bond markets to raise funds.

Local corporate debt issuance has fallen dramatically with many companies in Singapore not wanting to increase their leverage in a tough and uncertain economic environment. Most corporations in Singapore are generally well capitalized. New issuance by financial institutions declined in 2002, largely because there were fewer mergers and acquisitions.
**Debt Maturity Profile**

Despite the Government extending the yield curve to 15 years in a bid to provide a pricing benchmark for issuers, the maturity of new securities has rarely extended beyond 10 years. Over the past two years, issuance has come mainly in short-dated to medium-dated securities. With interest rate on a declining trend, most companies can issue short-dated debt with little risk of incurring higher rates when they roll them over. This may change toward 2004 as expectation changes from one of declining rates to one of rising rates. As this happens, there may be additional longer-dated issuance to capitalize on low long-term rates.

**Regulatory Framework**

MAS is responsible for the development of Singapore’s financial markets. In October 2001, the Securities and Futures Act (SFA) was passed by parliament. The SFA is aimed at consolidating legislation relating to capital markets activities in Singapore. For the debt market, the SFA has simplified the process for raising funds through debt issuance.

**Instruments**

*Singapore Government Securities (SGS).* There are two main types of SGS: T-bills and T-bonds. These securities are issued by the MAS on behalf of the Government. Both types of securities have been given the highest credit rating available by three international ratings agencies—Fitch, Moody’s, and S&P.

*Marketable Government Bonds.* Marketable bonds issued by the Government are fixed-rate bonds currently issued with original maturities of 2 years, 5 years, 7 years, 10 years and, more recently, 15 years. These bonds are auctioned according to the preannounced issuance calendar. There are 16 bonds outstanding in the market with a total face value of S$42.8 billion. The distribution of the outstanding bonds in the market is skewed to tenors of 5 years and less. This is largely because the banks are the largest investor group in the SGS market.

*Nonmarketable Government Bonds.* These bonds are floating-rate coupon bonds normally issued directly to the CPF, which places its
surplus funds as advanced deposits with MAS. These deposits are then used for subscription of future issues of nonmarketable bonds. Because they are nonmarketable, they are not quoted in the market. Interest rates for these bonds and advanced deposits are pegged to the CPF interest rate, calculated from a formula containing the 12-month fixed deposit and month-end savings deposit rates of the major local banks. Presently, balances in the CPF Ordinary Account are subject to a minimum 2.5% per annum, and 4% per annum for balances in the CPF Special Account and Medisave Account. As at June 2002, there were approximately S$93.5 billion in nonmarketable bonds outstanding.

Statutory Board bonds. Issuance by statutory boards was at the forefront of the development in the local bond market until 2001. The three largest issuers among the statutory boards in Singapore are Jurong Town Corporation, the Housing Development Board, and the Land Transport Authority.

Private Sector Securities

The corporate debt market has over the past few years attracted a diverse group of issuers from around the world. The major issuers in the market are made up of property companies, SPVs, locally incorporated entities, financial institutions, and foreign entities. Among that group, locally incorporated entities remain the largest borrowers. However, as noted earlier, borrowing from foreign entities has been accelerating over the past few years.

Preferential shares. At the start of 2003, the Government adopted a one-tier corporate tax system. Under the new system, dividends paid from January 2008 will not receive a tax credit component, and dividends received by investors will be tax-exempt. Under the new legislation, more cash-rich companies are likely to issue preferential shares over the coming years. An increase in preferential shares, which are often treated as bonds, should provide more duration to the bond market and be a welcome relief for life insurers, because they will be moving to a new risk-based capital framework during the coming years.
Structured Products

Over the past few years, structured product issuance has been gaining prominence. As shown earlier, debt issued through SPVs has increased significantly from making up only 37% of the debt issued in 2001 to 50% in 2002. These SPVs generally offer more complex products to the market, providing higher returns through a more efficient capital structure. The growth over the past few years has been driven by asset securitization, credit hybrid products, and collateral debt obligations.

Regarding asset securitization, property developers have been securitizing their property holdings to free up more capital and increase their advantage. This area should continue to exhibit strong growth in the coming years with the introduction of the new risk-based capital framework, which means that insurers cannot have more than 16% of their assets concentrated in property. Additionally, property developers will probably continue to seek funding through real estate securitization, because it is cheaper than more traditional funding sources.

With regard to credit products, banks and asset managers have been constructing products that combine equity and debt to offer various forms of principal-protected investments to the retail client base.

Concerning collateral debt obligations, banks, life insurers, and asset managers have over the past year been actively investing in this relatively new product as a means to diversify their assets and earn higher yield.

Treasury Bills. These are short-term discount securities maturing in one year or less from the issue date. T-bills typically come in 3-month and 1-year tenors, although 6-month tenors have been issued before. Auctions for 3-month T-bills are held weekly, while auctions for 1-year T-bills are held twice a year, in the first half and the second half of the year, respectively. There is currently S$16.95 billion worth of T-bills outstanding in the market. The typical issuance size for 3-month T-bills over the past year has been around S$900–950 million. For the one-year maturity bills, the typical issuance size has been around S$2.0–2.5 billion.
Repo Market

The repo market has become increasingly liberalized, as MAS recognizes its importance in the development of the cash bond market and the extra flexibility it offers to MAS. The repo market provides MAS another avenue to manage liquidity in the system aside from weekly 3-month T-bill auctions. Documentation varies according to the counterparties involved. Banks trade under a MAS-outline Global Master Repurchase Agreement. The flexibility in repo transactions is similar to repo markets in most developed markets, with market participants able to conduct both general collateral repo and specific repo, which includes overnight and term repo.

Primary Markets

_Singapore Government Securities._ Marketable SGS are issued via auctions, with 3-month T-bills being issued weekly, while the rest of the bonds are issued based on the MAS Issuance Schedule. MAS has, over the past few years, begun to preannounce the SGS issuance schedule. Generally, the following year’s issuance schedule is announced at the end of the current calendar year. The main objective for this move is to give market participants greater ability to plan their investments, which would in turn provide more certainty and predictability. Consequently, the cost of SGS issuance should be lower because the uncertainty is reduced. The issuance calendar only specifies the issue dates, the tenors, and whether the issues are new or a reopening of an existing issue. The issue amount is determined around 2 weeks before the issue date.

T-bill auctions are conducted under a multiple price (or discriminatory price auction) basis. For bonds, the auction is conducted under a uniform price basis. Although SGS auctions are open to all bidders, all bids must be submitted first to primary dealers. The primary dealers will then submit the bids via SGS, which are made available only to primary dealers.

Settlement of successful bids takes place on the issue date, which is usually 3 business days following the auction date. Settlement is via MEPS, which is on a RTGS/DVP basis. For nonprimary dealers without MEPS accounts, the book-entry, scripless SGS allotted to them are held in custody on their behalf by the primary dealers with whom they have set up custodial accounts.
Corporate issuers can use a simplified procedure to place their bonds to institutional investors. Unlike private placement where the number of investors is limited to 30, there is no such restriction for selling bonds to institutional investors. Offering bonds to the public requires filing a prospectus and procedures prescribed by MAS.

Since August 1998, MAS has actively encouraged the participation of foreign issuers in Singapore, while still maintaining the policy of non-internationalization of the Singapore dollar. Issuance by foreign entities is governed by MAS Notice 757, which is also the notice dealing with the non-internationalization policy on the Singapore dollar. Under this policy, funds raised in Singapore dollars must be swapped into the remitting currency if it is being used outside Singapore. In general, foreign issuers follow the same process outlined above.

**Secondary Markets**

Secondary market trading in bonds has recently picked up following the slump in equities since 2000 and efforts by the Government to encourage participation in the bond market. Trading in SGS dominates turnover, with significantly lower liquidity in corporate debt in terms of both bid/offer spreads and size per issue. Average SGS bond daily turnover in cash trading in 2002 was S$1.8 billion. This is significantly higher than the 2000 turnover of S$0.6 million. Turnover is likely to stabilize at this level unless the investor base widens or there is greater volatility in interest rates. T-bill turnover has been on a slight decline, with most investors buying and holding the instruments to maturity.

A large portion of the cash market turnover is located in longer tenors. Banks are the main holders of SGS due in large part to minimum liquid assets (MLA) requirements. Given this requirement, the most neutral strategy for banks is to hold short-dated bonds. This is because the liabilities of banks are primarily through deposit taking, which is low in duration risk, and hence a neutral position would be to hold similar tenor assets. Therefore, banks tend to buy and hold shorter-dated debt for MLA and trade the longer-dated instruments.
Derivatives

Over the past two years the expansion in the derivatives market has been driven by liberalization by MAS. Recently, MAS revised Notice 757 to allow nonresidents to transact freely in the Singapore dollar foreign exchange options market. The latest change, in 2002, means that the trade does not require supporting documents to show that it is for hedging financial or economic activity. In addition to foreign exchange options there is an active market in interest rate options, interest rate swaps, and futures.

Five-year Singapore Government Bond Futures

Launched in June 2001, the 5-year Singapore Government bond futures contract is the second exchange-traded product offered by the Singapore Exchange.

As mentioned earlier there is a relatively limited supply of long-dated bonds in the market. As a result, the increase in bank demand for SGS has outstripped supply in the long-end of the SGS curve. In addition, because banks are not in the business of managing bond portfolios, they have tended to hedge out their bond duration risk by paying in swaps. Historically, benchmark 10-year asset swap spreads have been market directional.

Investors

Banks

As of end-March 2003, banks held around 63% of the total marketable SGS in the market. In 2002, most of the banks moved to a new framework for calculating their statutory MLA holdings. Under the new framework banks can hold as little as 12% of their liabilities in the form of MLA provided they meet certain objectives. The trend in the last quarter of 2002 and early 2003 was one where the pace of growth in deposits outpaced that seen in loans. As a result, some banks hold 24% of their liabilities base in the form of MLA. This trend is likely to continue until the growth rate of the global and local economy begins to increase.
**Asset Managers**

The asset management industry in Singapore continues to grow strongly, with total funds under management at end-2001 of S$307 billion, a tenfold increase from the 1992 level of S$37.5 billion. These figures do not include funds managed in Singapore but not invested there. As of end-2001, discretionary funds invested in Singapore dollar assets were 18% of the total. However, most funds were invested in equity, with investment in bonds being the next biggest asset class.

Growth in the industry over the past few years has been driven by several measures taken by the Government. First, in 1998, MAS and the Government embarked on a program to foster the asset management industry. This was done by placing a total of S$35 billion over a span of 3 years to external fund managers. Second, the CPF investment scheme (CPF-IS) for unit trusts was revised no less than three times, in 1998, 2000, and 2001, to increase the number of asset managers and products for CPF members. Presently there are 31 CPF-IS approved fund-management companies managing more than 150 unit trusts. The revision in 2001 to the CPF-IS allows more funds to be invested in a wider range of investments including, among others, equities, bonds, investment-linked policies, exchange-traded funds, gold, and fixed deposits.

Over the past few years, asset managers have begun to participate more actively in the bond market. They have been more active buyers of SGS than of corporate bonds. These managers usually manage index funds, where performance is compared with a certain benchmark index.

**Foreign Investors**

Because there are no capital controls in Singapore, nonresidents can freely transact in the SGS market and remit funds in and out of Singapore. Participation in SGS auctions is also permitted through the normal channels as outlined above in the Primary Markets section. Furthermore, there are no restrictions on nonresidents to transact in Singapore dollar asset swaps or to borrow from financial institutions in Singapore to invest in SGS and other Singapore dollar financial products.
The bigger players over the past few years have been the hedge funds and asset managers. Hedge funds have largely participated in the market by trading the bond-swap spread and more recently, but infrequently, they have started to trade the interest rate options market via swaptions. Trading in bond-swap spreads, although more active than trading in interest rate options, has been limited by the relatively tight swap spreads as compared with those in the more developed markets in the US and Europe.

**Taxation**

There is no capital gains tax in Singapore. Any gains in the nature of capital made from the sale of bonds are exempt from Singapore tax except where the gains arise from the sale in the ordinary course of business carried on in Singapore or dealing in bonds. Generally, payments of any interest on bonds made to a person not known to be a resident in Singapore for tax purposes are subject to withholding of Singapore tax at the rate of 15%. This rate may be reduced under the double taxation conventions to which Singapore is a party. Attractive tax incentives have also been introduced to encourage origination and trading of debt securities in Singapore.

In a bid to help the financial sector, the Government has over the past few years introduced a multitude of financial incentives in the form of tax-related concessions and exemptions to issuers, investors, financial institutions, and approved bond market intermediaries. Under the Approved Bond Intermediary (ABI) scheme approved in 1999, the MAS evaluates a financial institution's debt origination and trading capabilities in Singapore on an overall basis. Once a financial institution has been accorded the ABI status, all debt securities managed by it are treated as qualifying debt securities. The ABI and the qualifying debt securities enjoy the following tax incentives: (i) the ABI is exempt from tax on fee income earned from arranging, underwriting, and distributing the securities; and (ii) the debt securities arranged by ABIs are considered qualifying debt securities and automatically eligible to enjoy the applicable tax incentives. To qualify for the ABI status, financial institutions must have a substantial team of experienced debt professionals in Singapore.
SGS Secondary Market Regulation, Clearing, and Settlement

SGS are traded OTC in the secondary market. Secondary market dealers are spread across banks, merchant banks, and stock broking firms. In addition to primary and secondary dealers, there are a number of interdealer brokers who provide broking services for SGS outright and repo transactions to facilitate secondary market trading in the interbank market. The minimum trading size for customers for both bonds and bills is S$1,000. Standard lot size among dealers is S$5 million for both on-the-run and off-the-run issues.

Trading is usually transacted by telephone or via the Reuters Dealing System and cleared electronically on a DVP basis over MEPS and the SGS Book-Entry Clearing System. This is an RTGS system introduced on 13 July 1998 and replaces the former end-day net settlement system, SHIFT. In order to trade in SGS, banks must have an SGS account with the MAS. Because SGS are scripless, ownership and transfer of SGS are reflected as book entries in banks’ custody accounts with MAS. Other investors or banks without MEPS accounts with MAS must open SGS accounts with any participating bank of the SGS market, either a primary or secondary dealer, to facilitate the safekeeping and debiting or crediting of SGS.

Corporate Secondary Market Regulation, Clearing, and Settlement

In the corporate bond market, nongovernment bonds settle through the Central Depository Pte. (CDP), now under the Singapore Exchange (SGX), which has recently established a link with MEPS. However, since the extension of the bond market, many issues are launched through either Euroclear or CEDEL, which also have links with the CDP. Publicly issued bonds are listed on the SGX.

There are no local credit rating agencies in Singapore. Issuers who wish to have their bond rated usually go to the international ratings agencies.
Thailand

Background

The Thai bond market has grown rapidly since the 1997 Asian financial crisis. To help support cash-strapped financial institutions, the Government issued bonds in June 1998, the first time in the decade, totaling baht (B)500 billion.

The other key development in the Thai bond market has been the introduction of savings bonds as a way of financing losses of the Financial Institution Development Fund (FIDF). With the issuance of B300 billion in savings bonds in 2002, retail investors have become the largest single investor segment, surpassing banks. Another B480 billion in savings bonds are expected to be issued in coming years.

The substantial amount of new government bonds coupled with the successive downtrend of interest rates has contributed to the robust bond market as evidenced by a significant increase in both market size and trading volume. The outstanding value of the bond market increased from B547 billion in 1996 to B1,533 billion (US$35 billion) at the end of 2002 (Figure A.14).

Figure A.14: Total Value of Commercial Bank Loans, Common Stock, and Domestic Bonds, Thailand
(B billion)

Source: Deutsche Bank 2002.
Regulatory Framework

The Bank of Thailand (BOT) supervises the operation of banking and finance businesses, while the Securities and Exchange Commission (SEC) supervises the primary and secondary market for securities business. The issuance and offering of securities are governed by the Securities and Exchange Act 1992 (B.E. 2535). In November 1994, the Bond Dealers Club (BDC) was set up to be the secondary market for debt securities. The BDC was upgraded to the Thai Bond Dealing Centre (Thai BDC) in April 1998 after it was granted the Bond Exchange license from the SEC. The Thai BDC’s goals are to provide an environment for fair and secure trading, to monitor trade, and to disseminate information on the secondary bond market. The Thai BDC also functions as a self-regulatory organization and has implemented a number of standards and conventions for bond trading.

Types of Securities

Bonds issued in Thailand can be divided into two major components: government and corporate debt securities. The market is dominated by government debt securities, which currently account for approximately 85% of total market outstanding (Figures A.15 and A.16).

Figure A.15: Total Outstanding Amount of Bonds by Type as of the End of 2002, Thailanda
(B billion)

![Figure A.15](chart.png)

a Only government bonds registered with the Thai BDC are included; excludes bonds issued under tier 1/tier 2 capital assistance program. Corporate debt securities are those registered with the Thai BDC; excludes bonds and subordinate bonds with preferred shares under the Stapled Limited Interest Preferred Securities (SLIPS) and Capital Augmented Preferred Securities (CAPS) program. Source: Deutsche Bank 2002.
Government Debt Securities

Government debt securities consist of four major types: T-bills, government bonds, BOT bonds, and state-owned enterprise bonds.

Treasury Bills. T-bills are short-term debt instruments with maturity less than one year. The bills are sold on a discount basis.

Government bonds. These are medium to long-term debt instruments issued by the Ministry of Finance. They consist of three types: investment bonds (IBs), loan bonds (LBs), and savings bonds (SBs). IBs have not been issued since 1991 and there are only few issues remaining. LBs capture the majority of the market because they are issued for financing budget deficits. SBs are issued to provide households with an alternative source of saving.

Bank of Thailand Bonds. FIDF bonds and Property Loan Management Organization (PLMO) bonds were issued by the central bank, the FIDF, and the PLMO, respectively. These bonds are no longer issued and there are only few remaining issues.

State-owned Enterprise Bonds (SOEs). These bonds are medium-to long-term debt instruments issued by SOEs and are of 2 types: guaranteed and nonguaranteed by the Ministry of Finance (MOF), of which the guaranteed bonds account for 86% of the total. However, there are restrictions on government provision of debt guarantee, which should not exceed 10% of total budget expenditure. Only MOF-guaranteed bonds are eligible for liquidity reserve requirements, the same as government bonds.

Source: Deutsche Bank 2002.
Corporate Debt Securities

The corporate sector began to issue bonds in 1992 after the enactment of the SEC Act that eased criteria for the issuance of corporate bonds. Structures of bonds include straight, floating rate notes, amortizing, and convertible. Bonds with more varying features are increasingly issued in recent years.

Issuing Process

Government bonds and T-bills are issued through an auction process organized by the central bank on a weekly basis. The term and size of the auctions are announced prior to the auction date. Auctions are held on a competitive price auction (American auction) basis. In June 2002, there was a launch of noncompetitive bids for small investors to submit bids in the range of B4–40 million.

Issuance and auctions of SOE bonds are managed by the Public Debt Management Office. The auctions are Dutch auctions where the entire issues are awarded to bidders (underwriters) who offer the lowest cost of funding. For corporate bonds, issuance is subject to SEC approval. Approval is granted on an “issuer” basis, enabling issuers to offer bonds several times per year. Credit ratings are required for all bond offerings with an exception applied to those offered to no more than 10 investors, or in an amount not exceeding B100 million or to creditors for debt restructuring.

Investors

Figure A.17 provides a breakdown of investors by type in government bonds from 1997 to 2002.

In 2002, individuals became the largest investor segment in the Thai Government bond market. The sharp increase in the “pensions, individuals, others” (Fig. A.17) is mainly because of the B300 billion savings bond that was sold to individual investors via an OTC offering in September 2002. There was also a flight to safety by individual investors seeking higher return in risk-free instruments.

Other major investors in government bonds are commercial banks, mutual funds and securities, and investment companies. Commercial banks are the major holders of state enterprise bonds to meet BOT’s requirement that the banks hold at least 2.5% of
their deposit base in such bonds. The number of mutual funds offering fixed-income products and their total funds under management have expanded rapidly in recent years. However, mutual funds tend to prefer highly liquid securities with short duration, up to 10 years.

Trading of Bonds

All government debt securities and most corporate bonds are registered with the Thai BDC. However, trading of bonds is mostly conducted by telephone or OTC. Dealers (financial institutions holding a debt securities license granted by SEC) are required to report all bond transactions to the Thai BDC. The Thai BDC monitors compiled prices and disseminates them to the public at the end of day. Prices disseminated by the Thai BDC are used as the market reference.

Most bonds trade on yield quoted at up to 6 decimal points. Prices are usually quoted on a clean basis as a percentage of par value. The market convention for the price/yield formula is actual/365.

Investors in the bond market are mainly institutions including banks, mutual funds, provident funds, government pension fund, and insurance companies. Government bonds are the most actively...
traded securities, accounting for approximately 80–90% of total trade. Benchmark issues are government bonds with maturity close to 1, 2, 5, 7, and 10 years.

Trading volume in the secondary market rose from a daily average of only B822 million in 1996 to B6,472 million in 2001. The liquidity of the market continues to improve, reaching about B10 billion per day in 2002 (about US$230 million for an annual turnover ratio of 1.7).

**Clearing and Settlement**

BOT is responsible for the settlement of government securities because it is a depository and a registrar for government debt securities. Most government bonds are issued in bearer form and settled by physical delivery at BOT. Corporate bonds are cleared and settled at the Thailand Securities Depository Co. Ltd. Most of them are scripless and transferred on a book-entry basis. The convention on settlement date is T+2, but can be varied upon counterparty agreement. BOT is currently working to improve efficiency of the settlement system for government securities in order to facilitate DVP on a real-time basis.

**Taxation**

Three types of income are subject to taxation: interest, discount (spread between par and offering price), and capital gain. The tax rates vary across types of investors and types of income. Nonresident institutional investors are subject to 15% withholding tax on interest, discount, and capital gain. The rates may be reduced to 10% for double tax treaty countries. For individual investors, interest income is subject to 15% withholding tax. The first individual buyer who buys discount bonds is also taxed 15% because discount is treated as interest income. Individual investors are exempt from capital gain tax for zero coupon debt instruments, while there is a 15% tax on coupon bonds.

In October 2003, the Royal Thai Government decided to waive a withholding tax on bonds issued under the new Asian Bond Fund promoted by EMEAP. This is a move that financial industry experts believe will help accelerate development of the regional bond market.
Other Bond Market Institutions

Primary dealers are financial institutions appointed by BOT to be the counterparties in open market operations. They are responsible to be market makers for government securities and to participate in the government securities auctions. In addition, primary dealers are also obliged to submit reference yields on government securities to the Thai BDC at the end of each day. Effective 2 May 2002, the primary dealers for outright transactions were the following 10 financial institutions:

ABN Amro N.V.Bank, Bangkok Branch
Bangkok Bank
Bank of Asia
Citibank N.A., Bangkok Branch
Deutsche Bank, Bangkok Branch
Hongkong and Shanghai Banking Corp., Bangkok Branch
Merrill Lynch Phatra Securities Co.
Siam Commercial Bank
Standard Chartered Bank, Bangkok Branch
Thai Farmers Bank

Bond Trader Registration

To promote the level of professionalism and to ensure the fair and orderly conduct of the bond market, the SEC issued a regulation requiring all bond traders to register with the Thai BDC effective 18 August 2000. In order to register, traders have to satisfy the set criteria and pass the registered trader examination administered by the Thai BDC. The Thai BDC is responsible for ensuring that the trading practice of registered traders follows the established ethics and code of conduct for the bond market.

Thai BDC Government Bond Yield Curve and Bond Indexes

The government bond yield curve is developed by using bidding yields quoted daily by the 10 primary dealers at a minimum value of B20 million. Additionally, the Thai BDC publishes reference yields of SOE bonds, FIDF bonds, and T-bills. The yield curve information
has been disseminated to the public on a daily basis since 1999. In addition to the yield curve, the Thai BDC has developed a bond index to track market performance, composed of a total government bond index and a categorized index, which is divided into 4 subgroups by maturity, i.e., 1–3 years, 3–7 years, 7–10 years, and more than 10 years. The Investment Grade Corporate Bond Index has served as a better benchmark for tracking and comparing corporate bond performance.
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Thai Bond Dealing Center (www.thaibdc.or.th)

