EAST ASIAN FINANCE
The Road to Robust Markets
Swati R. Ghosh
THE WORLD BANK
EAST ASIAN FINANCE

The Road to Robust Markets

Swati R. Ghosh
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Foreword

East Asian financial markets have witnessed major transformations since the 1997 financial crisis. Most striking has been the resolution of banking and corporate sector distress. Banks have been recapitalized, and a significant consolidation has taken place in the banking sectors in the region. At the same time, governments have taken a range of initiatives to strengthen the regulatory foundations of the financial sector, including improved prudential regulations and supervision and corporate governance and disclosure standards. East Asian governments have also come together to launch several regional initiatives aimed at harnessing the potential for regional integration and minimizing the risks of contagion.

Against this backdrop, in consultation with policy makers and market participants in the region, the World Bank identified a need to take stock of what has been achieved in the region and the priorities for the financial sector going forward. East Asian Finance: The Road to Robust Markets provides the empirical foundation for the discussions and benchmarks of the financial markets in East Asia.

The report has benefited from broad-based engagement with policy makers and institutions in the region. Six institutions in the region—the Asian Institute of International Financial Law (Hong Kong University), Cagamas Berhad (Housing Corporation of Malaysia), the Hong Kong Mortgage Corporation, the Korea Institute of Finance, the Rating Agency of Malaysia, and the Securities Commission of Malaysia—have collaborated on this work and have contributed a series of papers on selected issues; these are included on the CD at the back of this report. This Selected Issues volume will also be made available on the World Bank Web site.

Aspects of this report were discussed at two workshops held in November 2005; one with the APEC Finance Development Center in Shanghai and another with the Korea Institute of Finance in Seoul.

The report has also benefited from a major conference that the World Bank organized with the Hong Kong Monetary Authority entitled “East Asian Financial Markets; the Next Frontier,” which brought together policy makers and private sector experts in the region in June 2006.
Looking ahead, a well-functioning financial sector will be critical to meeting both the large financing requirements and the demand for more sophisticated financial services. In the past, the financial sector focused largely on the needs of corporations. But as per capita incomes rise, the financial sector will face growing demands from consumers, especially for finance for housing and other durables. At the same time, businesses in the region are looking for a broader range of services, including investment banking services. And with the deepening of intra-regional trade, firms that operate across borders will likely require cross-border financial services. Catering to these needs calls for further progress toward more diversified, efficient, and robust financial markets. The report reviews the agenda to achieve these objectives through a detailed examination of all the key segments of the financial system and of the institutional infrastructure.

The report highlights the importance of strengthening risk management in financial institutions across the financial segments. Globally the traditional separation among banking, insurance, and securities markets is breaking down as a result of technological innovations, deregulation, and liberalization. Financial intermediaries now offer products that resemble those traditionally offered by other intermediaries. The securitization of traditional forms of credit and new ways of repackaging and trading risks is weakening the distinction between equity, debt, and loans. And new products are also giving rise to new linkages across financial intermediaries and markets. These developments pose challenges for risk monitoring, regulation, and supervision. The report reviews these challenges and the implications for appropriate risk sharing and risk transfer.

East Asian policy makers are focusing on regional integration as an important means for developing and diversifying financial markets and for expanding the opportunities for financial intermediation in the region. The report argues that there are synergies to be exploited between these regional-level initiatives and the domestic policy agenda. In particular, the development of the bond markets—important for financial market diversification—will rest on a combination of the initiatives being taken at the regional level and measures to develop the institutional investor base at the domestic level.

In comparison to other regions, East Asian financial markets today are developing at a rapid pace. It is encouraging to see the importance that policy makers attach to the agenda for financial sector development and to see their commitment in translating strategies and ideas into specific actions. We look forward to partnering with the region in addressing the remaining challenges.

The CD attached to this report also includes comparative data on the key financial segments of the countries in the region, based on a new dataset that is being developed by the World Bank.

Homi Kharas
Chief Economist and Sector Director
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The World Bank
This volume is a contribution by the World Bank to the ongoing dialogue on financial sector development in East Asia. It has benefited from extensive discussions with policymakers, regulators, and market participants.

The report was written by Swati Ghosh, with contributions from Loic Chiquier, Ismail Dalla, Oliver Fratzscher, Gregorio Impavido, Luc Laeven, Jose Luna Martinez, Cedric Mousset, Diego Sourrouille, and Craig Thorburn; it also draws on inputs by Thorsten Beck, Inessa Love, Sjamsu Rahardja, and Liza Valenzuela. Several other World Bank staff provided valuable support, including Ernesto Revilla, Marco Arena, Vidhi Chhaochharia, Claire Grosse, Ruogu Huang, Zubaidur Khan, Margaret Miller, Ronald Points, Jong-ku Choi, Antonio Ollero, Gyeongsoo Bae, Sameer Goyal, Behdad Nowroozi and Stefano Curto. Support for document processing was provided by Gloria Elmore.

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The study has also benefited from papers on selected issues prepared by our counterparts. These papers are in the volume East Asian Finance: Selected Issues and can be found in the attached CD. We would like to express our gratitude to the Asian Institute of International Financial Law (University of Hong Kong); Cagamas Berhad, Malaysia; the Hong Kong Mortgage Corporation; the Korea Institute of Finance; the Rating Agency of Malaysia; and the Securities Commission of Malaysia. The support of the Hong Kong Monetary Authority is also gratefully acknowledged.

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Abbreviations and Acronyms

ABF1 Asian Bond Fund 1
ABF2 Asian Bond Fund 2
ABMI Asian Bond Market Initiative
ADB Asian Development Bank
AIM Alternative Investment Market
AMA Advance Measurement Approach
APEC Asia-Pacific Economic Cooperation
ASEAN+3 Association of Southeast Asian Nations (plus China, Japan, and the Republic of Korea)
BCBS Basel Committee on Banking Supervision
BCP Basel Core Principles
BIS Bank for International Settlements
BOT Bank of Thailand
BSP Banko Sentral ng Pilipinas
CBRC China Banking Regulatory Commission
CDO Collateralized Debt Obligation
CGFS Committee on the Global Financial System
CLSA Credit Lyonnais Securities Asia
CSD Central Security Depository
CGT Capital gains tax
DVP Delivery Versus Payment
EFB Exchange Fund Bills
EFN Exchange Fund Notes
EMEAP Executive Meeting of East Asia Pacific
ERM Exchange Rate Mechanism
ETD Exchange-traded derivatives
F-IRB Foundation Internal Ratings Based Approach
FSA Financial Services Authority
FSDI Financial Sector Development Indicators
FSS Financial Supervisory Services

EXTN Fixed Treasury Note
GSCS Name of private company
IAS International Accounting Standards
IBNR International Financial Reporting Standards
IFRS International Financial Reporting Standards
IGAAP International Generally Accepted Accounting Principles
IOSCO International Organization of Securities Commissions
IPO Initial Public Offering
KTB Krungthai Bank
LSE London Stock Exchange
MFI Micro-Finance Institutions
MGS Malaysian Government Securities
NBFI Non-Bank Financial Institution
NPA Korean National Pension Administration
NPC Korean National Pension Corporation
NPL Non-performing loan
OECD Organisation for Economic Co-operation and Development
ORSO Occupational Retirement Schemes Ordinance
OTD Over the counter
PAIF Pan Asian Bond Index Fund
QFII Qualified foreign institutional investors
SA Standardized Approach
SEC Securities and Exchange Commission
SFC Securities and Futures Commission (HK)
UKLA United Kingdom Listing Authority
UNICTRAL United Nations Commission on International Trade Law
WHT Withholding tax
The Changing Regional Context

Over the past eight years, some significant developments have taken place that are changing the context in which countries in the region are operating. These developments emphasize both the need for, and the possibility of, more efficient intermediation and stronger more diversified financial systems in the region.

One such important development has been the accumulation of substantial international reserves, which now amount to more than US$1.6 trillion. This high level of reserves reflects not only the resumption of capital flows to the region—as East Asia has once again become the largest recipient of international flows—but also the accumulation of the region’s own savings. These resources will allow the region to meet its financing needs over the next few years. At the same time, as the financial crisis highlighted, there are also challenges in intermediating large capital inflows effectively without making economies more vulnerable.

Looking ahead, both financing requirements and the demand for financial services are likely to expand, making it important to achieve efficient financial intermediation. Corporate financing needs are likely to rise over the next few years. Though recent economic growth has been strong, averaging 5.6 percent a year during 2000–05, much of it has stemmed from exports and private consumption (Figure 1). Investment has generally been weak and erratic; except in China, the average investment rate, at around 25 percent of GDP during 2000–04, remains significantly below the pre-crisis average of 34 percent of GDP (1993–96). The fall in the investment rate has been especially large in Indonesia, Malaysia, and Thailand. Countries’ efforts to improve the investment climate can be expected to raise productivity, but the region is still likely to have sizable needs for investment, including in infrastructure.

A wider range of financial services will also be needed. In the past, the financial sector focused largely on the needs of corporations. But as per capita incomes rise it will face growing demands

*The report covers China, Hong Kong (China) (SAR), Indonesia, Korea, Malaysia, the Philippines, Thailand, and Singapore, and for brevity refers to this set of economies as the East Asia region. China is covered in less depth than the other economies, given the very distinct set of issues pertaining to its financial markets.
from consumers, especially for finance for housing and other durables. Moreover, businesses in the region are looking for a broader range of services, including investment banking services. Meanwhile, intra-regional trade is deepening and firms that operate across borders will likely require cross-border financial services.

Another important development in the regional context is the growing attention to regional cooperation. Several regional arrangements and cooperative frameworks existed before the crisis, and various initiatives for regional financial cooperation have emerged since then. There are two areas in particular where measures have been taken at the regional level.

The Chiang Mai Initiative, established in May 2000, is a network of bilateral currency swap agreements among 13 ASEAN+3 countries, designed to prevent currency crises in the region. In May 2005, the finance ministers of these countries announced their intention to move to a collective or synchronized activation of bilateral swaps. The group also agreed to institute a more comprehensive mandatory surveillance mechanism for all ASEAN+3 members.

Initiatives to develop a regional bond market have been the second area of regional cooperation, as the crisis brought to the fore the importance of having more diversified financial systems in order to increase the risk-bearing capacity of the East Asian economies. Some of the concrete measures that have been taken at the regional level in this context address what may be termed demand-side constraints (from the perspective of investors), while others address supply-side issues (from the perspective of issuers).

Under the Executives’ Meetings of East Asia Pacific Central Banks (EMEAP), two Asian Bond Funds have been launched using a portion of EMEAP’s international reserves. The first of these, the Asian Bond Fund 1 (ABF1), pooled $1 billion of reserves and invested in US dollar-denominated government and quasi-government bonds of eight ASEAN+3 countries. The second (ABF2), of US$2 billion, is investing in local-currency-denominated sovereign and quasi-sovereign bonds. Its aim is to give both retail and institutional investors access to local bond markets in the region in a transparent and cost-effective manner, and it is being enlarged through private placements by institutional investors, participating dealers, and market makers.

ABF2 should also provide an impetus to broader market development in two ways. First, like ABF1, by being an actual fund it has allowed policymakers to learn from experience and has helped to identify crit-
ical impediments to cross-border listing and investing. Second, it is expected to spur the introduction of new instruments for investors: since the construction of the index and the compilation methodology will be published, managers of private funds can use these indexes as benchmark indexes and replicate or customize these for their fixed-income products.

Working groups under ASEAN+3 and Asia-Pacific Economic Cooperation (APEC) have addressed some of the supply-side constraints on cross-border investments, including the issuance of new securitized debt instruments; credit guarantee and enhancement mechanisms; foreign-exchange transactions and settlement issues; the issuance of bonds denominated in local currency by multilateral development banks, foreign agencies, and multilateral corporations; and local and regional credit-rating agencies.

While regional cooperation is providing an impetus toward achieving more diversified financial markets, many of the needed policy measures will have to be undertaken at the domestic level. This is because the necessary deepening and diversification of markets largely depends on actions at the domestic level and also because the benefits of the regional initiatives themselves depend on the complementary development of domestic markets.

Indeed, while regional initiatives have helped identify and remove several of the direct barriers to cross-border bond investments, cross-border bond flows (especially within the region) remain quite small. Partly this reflects differences among countries in areas such as credit-rating standards, legal and regulatory systems, and accounting and auditing standards and practices; these differences add to costs and uncertainty for both issuers and investors and can deter cross-border flows. Partly, too, it reflects the fact that the region’s institutional investor base is still quite small. The regulatory, governance, and risk-management frameworks of institutions such as pension funds and insurance companies need to be strengthened to ensure these institutions have the incentive and ability to undertake cross-border investments. Domestic derivatives markets also need to be further developed and deepened, because limitations in this regard can reduce investors’ interest in cross-border investments. All these measures and actions need to be undertaken at the domestic level. At the same time, of course, regional financial integration can significantly enlarge the gains from domestic policy measures, and indeed, in some cases can make the development of domestic financial markets more viable.

Much of the focus of policymakers therefore needs to be on domestic policy measures, while recognizing the synergies that can potentially be obtained from undertaking regional measures in tandem with these domestic measures.

**Where Do the East Asian Financial Markets Stand Today?**

As is now well recognized, a vibrant East Asian financial sector of the future will need at least three characteristics. It will need to be highly diversified to meet the financial services requirements of increasingly complex and sophisticated economies. It will need to provide financial services efficiently, contributing to the productivity and competitiveness of the economy as a whole. And it will need to be robust, to able to withstand a range of shocks in a fast-changing globalizing world economy. This section therefore looks at where financial markets in the region stand with regard to these aspects.

**How diversified are the financial markets?**

Over the past eight years, the region’s financial sector has deepened, with significant growth of assets in banking and in equity and bond markets (Table 1 and Figure 2). At US$9.6 trillion in 2005, the assets of the East Asian financial markets were equivalent to about 21 percent of the U.S. financial market and almost half of that of Japan.

Measured in terms of market capitalization, East Asia’s equity market has tripled since 1997, amounting to US$2.3 trillion in 2004 and US$2.8 trillion in 2005. Stock markets in the region are still considerably smaller than in the United States, the United Kingdom, or Germany, and in aggregate still account for only 6 percent of world stock market capitalization. But in relation to the size of domestic economies they compare very favorably with those of advanced industrial countries. Indeed, stock market capitalization as a percentage of GDP is larger in Hong Kong (China), Singapore, or Malaysia than in the United States, United Kingdom, or Germany.

The region’s bond markets have also seen sizable growth over the past six or seven years, albeit with considerable variation across countries. In the region as a whole, bonds outstanding amounted to US$1.4 trillion in 2004 and US$1.5 trillion in 2005. However, much of the growth in bond markets (and more than 50 percent of the growth from 1997–2004 in all
economies in the region except Hong Kong (China) and the Republic of Korea) has been on account of bonds issued by governments, largely to restructure banking systems (Table 2). Although corporate bonds have accounted for a reasonable proportion of the growth in several jurisdictions, in most they remain quite a small proportion of the overall bond market.6 Across the world, countries’ financial structures vary widely. But compared to countries in other regions with broadly comparable per capita incomes, those in East Asia have relatively large banking, equity, and even bond markets.7 And given their per capita incomes and the extent of their financial deepening overall, countries in East Asia lag behind in the importance of their bond markets, particularly of the corporate bond market, relative to the other financial segments (Figure 3).

How well are financial markets serving a broad set of needs?

To what extent are the financial sectors in the region serving the needs of consumers and firms through the

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<td>22.3</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>0.2</td>
<td>6.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>7.4</td>
<td>18.5</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Sources: ADB, BIS, and country sources.
different financial segments? In banking, the ratio to GDP of domestic credit extended to the private sector has yet to recover to pre-crisis levels in several of the crisis-affected countries—notably Indonesia, the Philippines, and Thailand—suggesting that banks are still holding many of their assets in forms other than loans (notably government bonds). In Indonesia and the Philippines, government assets held by banks constitute around 15 percent of GDP.

Of the domestic credit that banks have extended to private borrowers, a growing share has gone to consumers. In 2004, consumer lending accounted for 53 percent of total bank lending in Malaysia, 49 percent in Korea, 30 percent in Indonesia, 17 percent in Thailand, 15 percent in China, and 10 percent in the Philippines. The bulk of these loans to consumers has been for housing, although other forms of lending, notably credit-card lending, have also grown fast. Even so, several countries still have substantial scope for greater penetration of banking services to households.

Lending by banks to the corporate sector has remained muted. In part this reflects low demand, both because corporate investment has remained low and because firms have deleveraged and financed a significant proportion of their capital needs through retained earnings. Firms have also sought alternative sources of external finance as financial markets in the region have broadened. For their part, however, banks may have become more risk-averse; pre-crisis lending levels were not necessarily the appropriate ones, given that corporations in most countries depended heavily on bank loans and were overly leveraged.

Over the next few years, demand for corporate financing is likely to increase in line with investment needs. Continued improvements in information disclosure and in overall corporate governance in the corporate sector, together with improvements in banks’ capacity to evaluate risks, will be important in ensuring the resumption of bank lending to corporations on a sustainable basis.

Equity markets have provided another source of financing for firms. For the region as a whole, new equity raised in the capital markets (from initial public offerings) amounted to US$32 billion in 2004 and US$31 billion in 2005.

The role of equity markets varies widely across countries in the region, however. Those in Hong Kong (China), Singapore, Korea, and Malaysia play an important role, and those in the other countries have the potential to play a much more important role than they do at present. In this latter group of countries, the amounts of equity raised are still quite small, as is the number of listed firms, and a high proportion of stock market capitalization and trading is accounted for by

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**FIGURE 3 Importance of Bank Assets Relative to Equity and Bond Markets**

![Graph showing the importance of bank assets relative to equity and bond markets across different countries.](https://example.com/graph.png)

*Source: Asian Bonds Online, BIS, IFS and WFE, WDI and World Bank Financial Structure Database.*
the top ten firms. (Relative to countries at the same per capita income levels in other regions, the Philippines, Indonesia, and Thailand are all doing well.)

As noted above, corporate bond markets are still relatively small in most of the countries in the region, and could play a greater role in corporate financing than they do at present. The key reason for the small corporate bond markets is the lack of liquidity in secondary markets. A shortage of liquidity in secondary markets matters not only for efficiency, as discussed below, but also for the overall size of the market, because there is a two-way interaction between the size of the primary market and liquidity in the secondary market. Investors are generally willing to invest in securities only if there is enough liquidity for them to sell and exit easily when needed. And, if liquidity is low and price discovery does not function well, the investors that do participate will generally demand a higher interest rate or return to compensate for the low liquidity, and this in turn may further deter companies from listing on the stock exchange or issuing bonds.

How efficient are the financial systems in the region?

Significant structural changes have taken place in the banking sectors of the crisis-affected countries, in response to policymakers’ efforts to address issues of capitalization, governance, risk management, and operational inefficiencies in the aftermath of the crisis. These efforts included closures and consolidation of banks, often entailing initial nationalization followed by re-privatization. As a result, most countries in the region have seen a sizable rise in the foreign ownership of banks, as well as significant consolidation and an increase in the average size of banks, measured in terms of both assets and deposits.

Consolidation has also taken place in the banking sectors of Hong Kong (China) and Singapore, which were not directly affected by the crisis. Here, as in other advanced industrialized economies, the trend has been driven by competitive pressures arising from deregulation (domestic and foreign) and technological advances.

Most countries in the region have eased their restrictions to allow banks to conduct business in areas such as securities and insurance. Banks are responding, to varying degrees, by offering fee-based services in new areas, and some are beginning to form strategic alliances with other financial institutions and to outsource their non-core operational functions with a view to achieving greater operational efficiency. For example, four foreign banks have set up regional processing centers in Malaysia.

On average, banks in East Asia have become more efficient over the past few years. Several of the structural changes that have taken place, including the strengthening of capitalization and foreign ownership, seem to have helped improve banking sector performance and efficiency.

However, banks in the region have yet to realize the potential economies of scale and scope from the consolidation that has taken place. Larger banks and banks that pursue a broad range of activities perform less efficiently than smaller banks and specialized banks. This may be because it takes time to learn how to reap the benefits of consolidation, and for many banks in the region it may be too early to see the results of this learning process. But it is also important to recall that most of the consolidation that has taken place so far has been government-led. If consolidation is to be accompanied by improvements in performance, the banking systems in the region need a competitive environment within which to operate.

Comparisons with countries at similar per capita income levels outside the region suggest that East Asia’s equity markets have room to improve their efficiency (Figure 4). Hong Kong (China), Korea, Malaysia, and Singapore have the most efficient markets in the region—although Korea ranks in the third highest quartile and the remainder rank only in the median range of a global sample of 85 economies. In the bottom quartile are Thailand, Indonesia, the Philippines, and China.

In some countries in the region, a sizable proportion of shares remains inaccessible to cross-border investors. As of end-2004, foreign investors had no access to around 42 percent of the stock market in the Philippines, 41 percent in China, and 36 percent in Thailand. This, coupled with the fact that in some economies a sizable proportion of shares is closely held (around 28 percent in China, 30 percent in Indonesia, 40 percent in the Philippines, and 21 percent in Thailand), means that in some cases only a small percentage of shares is freely available to would-be investors. In turn, this can significantly dampen the liquidity and efficiency of a stock market.

As noted above, the biggest constraint on the development of the region’s bond markets is the limited
liquidity in the secondary markets—which affects the efficiency of these markets overall. Of course, liquidity in bond markets is limited even in the advanced industrial countries. Nonetheless, the region’s bond markets on average are much less liquid than those of advanced industrial countries, and, not surprisingly, liquidity is even lower in the corporate bond market (Table 3). Corporate bonds are generally much smaller than government bonds and their small issue size contributes to illiquidity.

### TABLE 3 Liquidity Indicators in the Bond Markets

<table>
<thead>
<tr>
<th>Economy</th>
<th>Value traded (US$ billions)</th>
<th>Turnover ratio (%)</th>
<th>Bid-ask spread (basis points)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value traded</td>
<td>Turnover ratio</td>
<td>ABF2 Government and quasi-sovereign</td>
</tr>
<tr>
<td></td>
<td>Government</td>
<td>Corporate</td>
<td>Government</td>
</tr>
<tr>
<td>China</td>
<td>568.6</td>
<td>1.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>27.7</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>952.2</td>
<td>382.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>84.3</td>
<td>38.1</td>
<td>1.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Thailand</td>
<td>70.1</td>
<td>5.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>542.4</td>
<td>n.a.</td>
<td>34.7</td>
</tr>
<tr>
<td>Singapore</td>
<td>130.5</td>
<td>n.a.</td>
<td>3.2</td>
</tr>
<tr>
<td>Japan</td>
<td>29,964.2</td>
<td>1,139.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Canada</td>
<td>6,428</td>
<td>n.a.</td>
<td>30.6</td>
</tr>
<tr>
<td>Germany</td>
<td>6,600</td>
<td>n.a.</td>
<td>10.1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6,516</td>
<td>n.a.</td>
<td>14.2</td>
</tr>
<tr>
<td>United States</td>
<td>103,829</td>
<td>n.a.</td>
<td>37.9</td>
</tr>
</tbody>
</table>

**Sources:** Value traded, turnover ratios, and bid-ask spreads for Asian economies: ADB Asian Bonds Online and Newsletter 2004. Asian Bond Fund 2 (ABF2) turnover ratio: International Index Company, September 2005. For OECD countries, value traded and turnover ratios are from Debt Management and Government Securities Markets, and bid-ask spreads from ADB Newsletter, except for Canada and Germany, data for which are as of 2006 from World Bank FSDI.

**Notes:** n.a. = not available
What is happening to risk and stability?

Banking sectors in the region are sounder on average than they were a few years ago and their health is steadily improving. In all the formerly crisis-affected countries, the reported nonperforming loan ratios are now in single digits, reflecting gradual improvements in profitability in the economies. Banks’ capital positions have also improved and in all countries the average reported risk-weighted capital-adequacy ratios are now significantly above the 8 percent recommended by the Bank for International Settlements.

Nonetheless, there is considerable variation across banks as well as across countries in the region. Moreover, on average, East Asia’s ratio of nonperforming loans remains high relative to that in other regions such as Latin America or Emerging Europe, while its profitability and risk-weighted capital-adequacy ratios are slightly lower.

In general, East Asia’s securities markets are relatively stable compared with those of other regions. Among a sample of 100 economies worldwide, Singapore falls in the highest (most stable) quartile, followed by Hong Kong (China), China and Malaysia in the second-highest quartile. Indonesia, the Philippines, and Thailand fall in the bottom quartile, as does Korea. Cross-country analysis suggests that inadequate disclosure of information can make it more likely that an equity market will be unstable and deliver large negative returns. Hence, continued improvements in disclosure should help to make the region’s equity markets more stable.

What about the risks and stability of the financial systems as a whole? In principle, a diversified financial system, with appropriately developed markets and mechanisms for risk sharing and risk transfer, such as securitization and derivatives, can enhance the risk-bearing capacity of an economy as a whole, by enabling market participants to manage and transfer risks to those more able and willing to bear them.

Risk transfer through new financial instruments has been a major innovation globally. Global derivatives markets have grown extremely fast: over-the-counter derivatives markets have grown tenfold over the past decade to reach US$248 trillion, while exchange-traded derivatives markets have grown to US$53 trillion in 2004.

Derivatives markets in the East Asia region have accounted for a sizable proportion of this growth, and the stability of the region’s financial systems seems to have improved as banks have transferred parts of their traditional credit risks to capital markets. But while risks can be intermediated and distributed more efficiently, they may simply become less visible as they move into less regulated segments of the financial markets.

Two major potential risks in East Asian financial markets today—that policymakers need to be cognizant of—are that higher risks will become concentrated in public banks and that risks will be aggressively shifted to less sophisticated non-bank financial institutions.

In general, weaker banks have incentives to carry larger risks, partly because implicit safety nets such as deposit insurance tend to subsidize the pricing of risks. Public banks are usually tasked with carrying larger and lumpier credit risks, often to serve national development goals. Meanwhile, most advanced private banks have begun selling undesirable credit risk in order to reduce risk-capital charges (since capital charges will be risk-based under the Basel II Capital Adequacy Framework, which most jurisdictions in the region have said they plan to adopt). Weaker banks, as well as public banks that do not always operate under risk-based frameworks, may be tempted to buy this credit risk in order to boost their revenues. If credit risk is being redistributed within the banking system, there is a possibility that larger risks are being concentrated in weaker and public banks, although they may not be visible as long as credit spreads remain at their current record-low levels.

Some transfer of risks may also be taking place in the more weakly regulated non-bank financial institutions. The growth of modern risk-transfer techniques is confounding the traditional assumption that banks face credit risks, mutual funds market risk, and insurance companies liquidity and maturity risk. Customized risk transfer from banks to non-banks is made easier by the sophisticated slicing of risk (with so-called real or synthetic collateralized obligations of debt, or loans or assets). Although data are scarce, market observers confirm that banks are net sellers of credit risk and insurance companies are net buyers.

Little information is available about the quality of credit-risk management in non-bank financial institutions or about the potential credit risk in insurance or re-insurance companies, especially within East Asia. However, concerns have been expressed about the limited understanding of non-bank risk
exposures, about regulatory arbitrage contributing to risk-shifting, and about the ultimate risk takers being the most weakly regulated institutions.

The Road to Robust Markets
Sizable transformations have taken place in financial systems in the region since the crisis. Banks have been restructured and recapitalized, many have been consolidated, and on average, they are now sounder. Countries have made efforts to upgrade prudential regulation and supervision, although some areas need further strengthening.\(^\text{14}\)

At the same time, as noted above, there is still scope for broadening access to banking services to households and for continuing to enhance the efficiency of banks that have started to provide a range of income- and fee-based services. Equity markets could play a more important role than they do at present in several countries in the region, while the potential role of bond markets is even greater since corporate bond markets are still relatively small.

Thus, despite the considerable progress that has been made, countries in the region face a broad-ranging agenda in the financial sector:

- further strengthening the efficiency, access, and soundness of the different segments of the financial system;
- developing sound markets and instruments that will enable market participants to share and transfer risks to those most able and willing to bear them;
- continuing to improve the institutional underpinnings of the financial sector (the exercise of corporate governance and information disclosure, the legal and regulatory framework, and accounting and auditing standards and practices);
- promoting a more diversified financial system.

Developing securities markets
As noted above, there is a two-way interaction between the size of a securities market and its liquidity and efficiency. Limited liquidity is the key issue in the East Asian securities markets, particularly the bond markets.

Three main factors affect (and are reflected in) liquidity or the lack of it: the availability of information to price securities accurately; transaction costs; and the size and heterogeneity of the investor base (Figure 5). To enhance the efficiency of the securities markets, policymakers will need to address each of these factors.

**Improving the informational basis for pricing securities**
Timely and accurate information is very important for liquidity; based on such information, liquidity can be generated by the activity of investors who disagree about fundamentals, facilitating the process of price discovery.

In improving the informational basis for pricing securities, a fundamental element will be the continued strengthening of corporate governance and of information disclosure. Among the crisis-affected countries, Korea and Malaysia, followed by Thailand, have moved the furthest in reforming their laws and regulations and practices. In Indonesia and the Philippines there is still considerable scope to strengthen corporate governance. More recently, China has also begun to strengthen corporate gov-
It is important to continue to raise awareness of good corporate governance principles and practices among companies, directors, shareholders, and other interested parties in the region. Broadly, the key challenges with respect to corporate governance lie in ensuring the effective exercise of minority shareholder rights, in improving financial reporting and disclosure, and in strengthening the rule of law. In many, if not most, cases, the legal and regulatory requirements on information disclosure, shareholder and creditor rights, and accounting and auditing standards are in place. But implementation and enforcement are often weak, because regulators lack sufficient independence, skills, or resources.

The rights of noncontrolling (minority) shareholders need to be protected against expropriation by controlling shareholders or insiders (managers). Since there is an inherent conflict of interest here that needs to be managed, mechanisms are needed to ensure that transactions between firms and insiders take place at arm’s length and are properly authorized and adequately disclosed. It is also important that minority shareholders have mechanisms to seek redress if their rights are violated. At present, derivative actions are rare and class action laws do not exist in some jurisdictions.

Further efforts are needed to strengthen the oversight of boards of directors and to improve the effectiveness of audit committees. Under good corporate-governance principles, boards are expected to act in good faith, with due diligence, and in the best interests of the company and the shareholders. They are also expected to fulfill certain key functions including selecting, compensating, monitoring, and replacing key executives; ensuring a formal and transparent board-nomination process; and monitoring and managing potential conflicts of interest of management, board members, and shareholders. At present, the concept of fiduciary duty is not explicit in many countries and directors are not often
held accountable for failing in their duties. Since the financial crisis, a high priority has been placed on countries in the region to restructure corporate boards, including mandating outside directors and various committees (to be responsible for nomination, remuneration of directors and management, and audit). Often, though, ostensibly independent directors do not adequately challenge or probe the judgment of managers. Finally, the concept of audit committees is new, and often these committees are not effective.

As regards information disclosure, though listed companies across the region adhere to the regular reporting of their financial results, there is still considerable room for improving the prompt disclosure of market-sensitive information and for strengthening the scope and content of disclosure, particularly in China, Indonesia, and the Philippines. It is clearly important that firms disclose all material information, rather than practicing the somewhat selective disclosure that is a common choice. Most countries have put in place disclosure-related rules and regulations for listed companies. What is needed is to enforce these rules and to cultivate a culture of greater disclosure over time.

The quality of financial reporting and disclosure depends on accounting and auditing standards and practices. East Asian countries are at different stages of convergence toward international standards, but where these standards are not yet followed, full disclosure of this fact would promote greater investor confidence. Enforcing financial standards is also important. For high-quality financial reporting, managers of firms need to have the incentive to take the steps needed to comply with applicable accounting standards in preparing financial statements; auditors need to be able and willing to fulfill their professional obligations; and regulators need to have the legal authority and capacity to monitor financial reporting and auditing practices and to enforce applicable accounting and auditing standards.

In bond markets, accurate pricing can be facilitated with several additional infrastructural components. First, there is the need to be able to price corporate bonds with reference to a “risk-free” benchmark (or index interest rate)—mostly commonly the interest rate of a government bond. To be a valid comparator, the price of a government bond must be truly driven by supply and demand. For this to happen in China, for instance, the authorities would need to move away from price-controlled bond auctions. Benchmark bond issues must also be large and stretch across the maturity spectrum. Countries in the region have attempted to build benchmark yield curves in government bonds since 1998. And though Hong Kong (China) and Singapore have succeeded in building both short and intermediate yield curves (for up to 15 years), in other economies, liquidity in issues with a maturity of more than five years is limited. China has no benchmark yield curve yet. The use of primary-dealer systems can help to promote greater liquidity in government benchmark issues, and aspects of these systems need strengthening in several countries in the region.

A second important element for corporate bond pricing is the existence of good credit-rating agencies. Rating agencies play a very important role in helping to determine the credit risk and thus the spread pricing of corporate bonds. Although rating agencies exist in all the countries covered in this report, and their penetration in domestic markets is relatively high, several of them are quite new and need more time to build a track record. International rating agencies, for their part, rate only the companies that issue across borders. Some of these agencies have formed joint ventures with local rating agencies, but difficulties in comparability across countries can still hamper cross-border investments.

Reducing transaction costs

Transaction costs comprise explicit trading costs—such as commissions, settlement fees, and taxes—as well as implicit costs—which represent the opportunity costs of delaying or not executing a trade. A market with high transaction costs will see less trading and have fewer price movements in response to relevant news and therefore be less liquid and less efficient. The factors that affect explicit and implicit transaction costs include withholding taxes and fees, the efficiency of the intermediaries, market infrastructure and institutional arrangements, and “complementary” infrastructure.

East Asia’s securities market infrastructure is relatively well developed (Table 4). Almost all countries in the region possess advanced clearing and settlement systems with the recommended features to minimize the risks (including the potential opportunity costs of delayed or failed trade) that are associated with pre-settlement and settlement of securities.
Going forward, these systems will need to expand to handle substantially larger volumes of transactions.

East Asian countries vary more in their “complementary” or supporting infrastructure—that is, in the development of repo (repurchase) markets, securities lending, margin trading (in particular, short selling), and derivatives (Table 5). Lack of these instruments and facilities reduces liquidity and increases the transaction costs of trading, and is an area that these countries now need to focus on.

Derivatives, provided they are developed within an appropriate framework of solid product design, regulation, and sound market infrastructure, and used in the context of good corporate governance and sound risk management within the financial institutions, can play a very important role in allowing market participants to manage and transfer risks to those better able and willing to bear them.15

Five main derivatives products are traded in East Asian markets. These are: foreign-exchange products, in which the region is estimated to account for 15 percent of the global market (Table 6, column 4); commodity derivatives, which have a long history, especially in China (although commodity derivatives account for less than 10 percent of the turnover of the exchanges); and credit derivatives. Among the fastest growing products are credit derivatives, especially credit-default swaps, which account for about half of the OTC market.

It is estimated that about 10 percent of the worldwide US$6 trillion credit-derivative market is located in Asia, mainly in Tokyo and Hong Kong (China). However, the bulk of derivatives activity overall is at present limited to a few economies in the region, notably Hong Kong (China), Korea, and Singapore (Table 6).

To further develop the derivatives markets in East Asia, cross-country experience suggests the following needs. First on the list are efficient, liquid, and integrated cash markets (for bonds, equities, commodities, and other assets) that are broadly determined by market forces rather than administered prices. Administered interest rates, segmented fixed-income markets, and capital controls make it unlikely that markets for interest-rate or foreign-exchange derivatives can develop successfully.

The second need is for a suitable legal and regulatory framework. In many emerging markets, including in East Asia, exchange-traded derivatives have

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### TABLE 4 Market Infrastructure Scores

<table>
<thead>
<tr>
<th>Economy</th>
<th>GSCS benchmark clearance and settlement score</th>
<th>Post-settlement score</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>92.5</td>
<td>A–</td>
</tr>
<tr>
<td>Indonesia</td>
<td>68.5</td>
<td>A</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>97.3</td>
<td>A+</td>
</tr>
<tr>
<td>Malaysia</td>
<td>93.3</td>
<td>A</td>
</tr>
<tr>
<td>Philippines</td>
<td>92.4</td>
<td>A+</td>
</tr>
<tr>
<td>Thailand</td>
<td>93.6</td>
<td>A</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>n.a.</td>
<td>A+</td>
</tr>
<tr>
<td>Singapore</td>
<td>n.a.</td>
<td>AA–</td>
</tr>
<tr>
<td>Greece</td>
<td>85.0</td>
<td>A+</td>
</tr>
<tr>
<td>Japan</td>
<td>n.a.</td>
<td>A+</td>
</tr>
<tr>
<td>Mexico</td>
<td>90.5</td>
<td>A+</td>
</tr>
<tr>
<td>Peru</td>
<td>97.8</td>
<td>A–</td>
</tr>
<tr>
<td>Turkey</td>
<td>98.3</td>
<td>A</td>
</tr>
<tr>
<td>Venezuela, R.B.de</td>
<td>72.6</td>
<td>BBB</td>
</tr>
</tbody>
</table>

Sources: GSCS and Thomas Murray.

Note: GSCS compares the settlement efficiency of markets, incorporating average trade size, local-market interest rates, the proportion of trades that fail, and the length of time for which they fail. Thomas Murray produces ratings of post-trade risk exposures according to various criteria of clearing and settlement, safekeeping, and asset servicing. The ratings follow a standard alpha scale from AAA to C.
## TABLE 5 Factors Affecting Transaction Costs in Bond Markets

<table>
<thead>
<tr>
<th>Transactions costs</th>
<th>China</th>
<th>Indonesia</th>
<th>Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Withholding taxes</strong></td>
<td>CGT: 5%. WHT on interest income: 10% for QFII.</td>
<td>CGT: 20%. WHT on interest income: 20%. Other tax: 0.1% of gross sale proceeds is withheld by the broker as income tax for securities transactions executed on the exchange.</td>
<td>CGT: The lower of 11% of gross sales proceeds or 27.5% of net capital gains. WHT on interest income: 27.5%</td>
<td>CGT: None. WHT on interest income: None.</td>
<td>CGT: None for transactions on the exchange. WHT on interest income: None.</td>
<td>CGT: 15%. No CGT on government bonds or certain quasi-government bonds. WHT on interest income: None for government or government-guaranteed debt; 15% otherwise.</td>
<td>CGT: None. WHT on interest income: None.</td>
<td>CGT: None. WHT on interest income: None for government and certain quasi-government bonds.</td>
</tr>
<tr>
<td><strong>Repo markets</strong></td>
<td>Planned in 2007. Available for government bonds 7 days to 1 year.</td>
<td>Underdeveloped so dealers unable to short</td>
<td>Underdeveloped but available with tenors from overnight to 90 days</td>
<td>Relatively developed. Available with maturities up to 1 year.</td>
<td>Underdeveloped but available with maturities up to 1 year.</td>
<td>Underdeveloped but available with maturities up to 6 months.</td>
<td>Mature repo market</td>
<td>Mature repo market</td>
</tr>
<tr>
<td><strong>Margin purchases</strong></td>
<td>No(^b)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- margin purchase allowed?</td>
<td>No(^b)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- margin loans allowed?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- margin purchases practiced?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Short sales</strong></td>
<td>No(^b)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No(^c)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- short sales allowed?</td>
<td>No(^b)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- stock lending allowed?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>- short sales practiced?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes: CGT = capital-gains tax. WHT = withholding tax. QFII = Qualified foreign institutional investors.

a. Repo markets in China are available for government bonds but not enterprise bonds.

b. The new amendments to the securities law in China leave open the possibility of margin trading but do not specify purchases or sales.

c. Malaysia has just announced a partial lifting of the ban on short sales that was imposed during the crisis. Short selling will be limited, however, to fewer than 100 stocks out of the nearly 1,000 listed.
grown strongly and involved a mix of banks, securities firms, and institutional as well as retail investors. Hence, regulators have adopted a more function-based approach to regulating derivatives markets, recognizing that such trading may pose higher risks for retail investors as well as for systemic stability. Indeed, many regulators have expressed a policy preference to channel derivatives trading out of the unregulated OTC markets toward regulated ETD markets—which have additional safety features, since every trade requires a prior cash deposit for margins that limit leverage. Strong coordination among regulators (local authorities, securities regulatory authority, central bank, and finance ministry) is critical to close any loopholes and ensure that rules are strictly enforced. There is also a need to enact a derivatives law that protects netting arrangements (see Chapter 7) in bankruptcies and enables effective enforcement.

Third, to provide a level playing field between OTC and ETD derivatives, capital rules for banks operating in the OTC markets need to be aligned with the margin rules that govern the ETD markets.

The development of derivatives markets also calls for certain key elements of institutional infrastructure, notably good accounting standards and disclosure—including the adoption of mark-to-market modalities as required under International Accounting Standard 39—and of market infrastructure. The single most important means to manage risk in derivatives markets is to reduce exposure through close-out netting arrangements, ideally with a central counterparty (CCP) that interposes itself between the counterparties to financial contracts that are traded in one or more markets. However, because a CCP also concentrates risks, it requires effective risk controls, financial resources, and oversight, because a failure could spill over to payments systems and other settlement systems. Therefore, a CCP is expected to have several safety cushions, including adequate capital and effective margin rules.

Bearing these issues in mind, experience suggests that there is merit in developing deep and liquid cash and repo markets first, followed by many of the derivatives products that trade primarily on the exchange-traded derivatives market. To promote safety and soundness, the development of the more complex over-the-counter products should probably not be sought until a later stage (unless these products emerge spontaneously to fulfill a need). Index futures are often among the first products to be introduced—before options on individual assets or more tailored and innovative OTC derivative products, such as credit-default swaps.

**Broadening the investor base**

To foster greater liquidity and efficiency in the securities markets, countries in the region also need to enact measures that can help broaden and diversify the investor base. It is important to have a wide, heterogeneous investor base with different preferences and risk appetites. Thus, in addition to the contractual savings industry (pensions and insurance), countries will need to further develop a mutual fund industry that can cater to retail investors, whose needs and risk appetites may be even more heterogeneous. Also important in attracting a wide variety of investors is the ability to provide different types of products to suit the different risk preferences of investors and to foster greater integration by opening up and facilitating cross-border investments.

The assets of East Asia’s institutional investors have grown over the past few years and now amount to around 45 percent of GDP in the region as a whole. Clearly though, the size of assets varies across

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**TABLE 6 Main Over-the-Counter and Exchange-Traded Derivatives in East Asia (US$ billion)**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Over-the-counter foreign-exchange derivatives</th>
<th>Over-the-counter interest-rate derivatives</th>
<th>Exchange-traded interest-rate derivatives</th>
<th>Exchange-traded equity derivatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>91</td>
<td>9</td>
<td>42</td>
<td>3</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>70</td>
<td>11</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>10</td>
<td>1</td>
<td>13</td>
<td>50</td>
</tr>
<tr>
<td>Other East Asia</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>% total of world</td>
<td>15</td>
<td>1.8</td>
<td>2.1</td>
<td>3.7</td>
</tr>
</tbody>
</table>

countries, with the institutional investor base still being a very small percentage of GDP in China, Indonesia, and the Philippines (Table 7).

**Pension schemes.** The pension schemes of the region differ widely in their institutional design, coverage, maturity, benefit provision, value of assets under management, and asset allocation—all of which bear directly on the actual and potential impact of pension funds on the development of capital markets. The conservative investment regulations generally observed in the region are typical of those governing public pension schemes in emerging economies. But, by and large, the actual allocations of pension funds tend to be even more conservative than the regulations permit. Other than in Hong Kong (China), where pension assets are largely held in equities, in most countries they are mainly invested in government securities and bank deposits.

Pension assets in the region are still relatively small. The Singaporean Central Provident Fund and the Malaysian Employees’ Provident Fund have assets that exceed 50 percent of GDP, but since both these schemes also have mandates unrelated to pensions, the amount of assets effectively connected to the pension function is smaller than might appear. Pension funds in the other countries amount to less than 25 percent of GDP. And although Korea, the Philippines, and Thailand have national defined-benefit schemes (which, in view of their long-term liabilities, may be expected to have the strongest demand for longer-dated fixed income securities), these pension schemes are relatively immature, and their need for investment instruments is still quite small.

Even at their current asset size, the region’s pension funds could contribute more to capital-market development if they were to invest a greater share of their assets in securities. What reforms could be undertaken that would both advance the goals of pension funds and simultaneously encourage a greater use of capital markets?

In defined-benefit schemes, the adoption of an asset-liability framework would likely encourage greater investments in securities. Managers of such schemes have traditionally focused on investment management, managing their assets against a return benchmark for an asset class. However, since defined-benefit schemes have predetermined liabilities or obligations, the focus is better placed on liability benchmarking—in which a liability index is constructed and assets and liabilities are managed with regard to the correlation between the two.

For defined-contribution schemes, an argument could be made for increasing the annuitization component. This would improve both the inter- and intragenerational risk-sharing properties of the pension system. From the perspective of capital market development, increased annuitization would strengthen the potential impact of the pension system by enlarging the set of professional institutional investors and the demand for long-duration fixed-income securities.

### Table 7: Assets of Institutional Investors

<table>
<thead>
<tr>
<th>Economy</th>
<th>Pension (US$ billions)</th>
<th>% of GDP</th>
<th>Life insurance (US$ billions)</th>
<th>% of GDP</th>
<th>Mutual funds (US$ billions)</th>
<th>% of GDP</th>
<th>Total (US$ billions)</th>
<th>% of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>28.0</td>
<td>1.6</td>
<td>136.0</td>
<td>7.9</td>
<td>27.0</td>
<td>1.6</td>
<td>191.0</td>
<td>11.1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>5.4</td>
<td>2.1</td>
<td>10.5</td>
<td>4.2</td>
<td>11.1</td>
<td>4.5</td>
<td>27.0</td>
<td>10.9</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>161.0</td>
<td>21.4</td>
<td>133.0</td>
<td>17.7</td>
<td>186.0</td>
<td>24.7</td>
<td>480.0</td>
<td>63.8</td>
</tr>
<tr>
<td>Malaysia</td>
<td>70.0</td>
<td>52.2</td>
<td>21.0</td>
<td>17.8</td>
<td>23.0</td>
<td>19.4</td>
<td>114.0</td>
<td>96.4</td>
</tr>
<tr>
<td>Philippines</td>
<td>7.9</td>
<td>9.2</td>
<td>2.7</td>
<td>3.1</td>
<td>1.4</td>
<td>1.6</td>
<td>12.0</td>
<td>14.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>20.0</td>
<td>12.0</td>
<td>17.0</td>
<td>10.2</td>
<td>19.0</td>
<td>11.4</td>
<td>56.0</td>
<td>33.6</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>38.0</td>
<td>22.9</td>
<td>9.0</td>
<td>5.4</td>
<td>465.6</td>
<td>280.3</td>
<td>512.6</td>
<td>308.6</td>
</tr>
<tr>
<td>Singapore</td>
<td>68.0</td>
<td>61.2</td>
<td>33.0</td>
<td>29.7</td>
<td>28.0</td>
<td>25.2</td>
<td>129.0</td>
<td>116.0</td>
</tr>
<tr>
<td>Total East Asia region</td>
<td>398.2</td>
<td>11.8</td>
<td>362.2</td>
<td>10.8</td>
<td>761.0</td>
<td>22.6</td>
<td>1,521.7</td>
<td>45.2</td>
</tr>
</tbody>
</table>

*Sources:* Hong Kong and Shanghai Banking Corporation (HSBC) 2005, Dalla 2005, Bank Negara Malaysia (BNM), Bank of Thailand (BOT).

*Note:* Figure for mutual funds in Singapore only includes Singapore dollar funds domiciled in Singapore.
Allowing or encouraging pension funds to invest a greater proportion of their assets in securities will require strengthening their governance structures and their risk-management systems. These are still relatively weak in many countries in the region.

**Insurance.** What of the (life) insurance sector in East Asia, whose assets have grown quite rapidly over the past few years but remain relatively small? Looking ahead, the potential importance of this sector for capital market development will depend more on the size of assets than on changes in investment regulations, because in general the latter are not binding.

Future growth in the assets of the insurance sector will, of course, depend on the scope for further developing the industry’s coverage and products. Penetration ratios—measured as the insurance premium as a percentage of GDP, and density ratios—measured as the premium per capita, show a still-substantial scope for further growth, particularly in China, Indonesia, the Philippines, and Thailand (Figure 6).

A potentially important impetus to capital market development might come from a consolidation of the insurance industry. In several countries in the region, including Indonesia, Malaysia, the Philippines, and Thailand, the industry consists of many small players (Table 8)—in part because the legal minimum capital levels for entry into the industry are low by international standards. The small size of these companies prevents them from playing an important role in the capital markets.

Several jurisdictions in East Asia are moving to introduce risk-based capital requirements in the insurance sector. In turn, this is likely to enhance insurance companies’ risk management skills and allow countries to move to less restrictive investment regimes. Focusing on capital regulations will also likely lead to consolidation of the industry in those countries that currently have a large number of small companies, enabling the industry to play a larger role in capital markets.

**Mutual funds.** At the end of 2004, East Asia accounted for about 10 percent of the US$16 trillion global net asset value of mutual funds. Both Hong Kong (China) and Singapore have set out to be regional centers for asset management, and unlike the other countries of the region they derive a large proportion of their assets from abroad. After Hong Kong (China) and Singapore, mutual funds in relation to the domestic economy are largest in Korea and Malaysia (20 and 25 percent of GDP respectively), followed by Indonesia, China, and the Philippines.
Mutual funds have grown rapidly in most countries in the region, albeit starting from a small base. Growth was above 20 percent during 2003–04 in all countries except Thailand, and was fastest in China and Indonesia (89 percent and 49 percent respectively). As exemplified by Indonesia in 2005, however, this growth has not always taken place in a sustainable manner.

Clearly a wide range of investment products, with different investment objectives and strategies, are available to retail investors in Hong Kong (China) and Singapore. Korea also offers a wide range. The variety of fund products in China, Indonesia, Malaysia, and Thailand is still relatively limited, although many new collective investment products have been introduced in recent years.

The region’s experience points to some key elements that need to be put in place to develop the mutual fund industry on a sound basis:

First, ensuring an appropriate and flexible regulatory framework. While financial markets innovate constantly, laws are difficult and time-consuming to change. In some countries, for example the Philippines, outdated legislation has hindered the development of the mutual fund industry. While laws governing mutual funds are needed to provide a clear legal basis for fund operation and regulation, it is preferable that they deal only with issues of principle and leave the details to subsidiary legislation. To accommodate changes such as new forms of funds, or to allow for new investment powers such as derivatives, regulations can be adapted more easily than laws, but they remain governed by the key principles set out in the law. Hong Kong (China) and Singapore have followed this approach.

Second, establishing and maintaining investor confidence. Several aspects are important in this respect, including: having a clear definition of the legal form of the fund; imposing a clear and primary duty on the managers of funds and custodians to act in the interests of fund investors; ensuring that the rights of investors are well defined; ensuring equitable treatment of incoming, ongoing, and outgoing investors in open-ended funds through valuation, pricing, and issue- and redemption rules; ensuring adequate disclosure to investors; having unambiguous rules identifying different categories of funds, and taking steps to avoid any portfolio abuses.

Third, ensuring that regulations are enforced. In ensuring the stability—and hence ultimately the sustained development—of the mutual fund industry, enforcement of the rules and regulations in an equitable manner is important.

Developing instruments that appeal to a broader set of investors

Securitization, which entails transforming illiquid assets into securities that can be traded on securities markets, can provide an important mechanism for sharing risks—in particular, credit risks. For investors, securities offer yields that exceed those on comparable corporate bonds and provide diversification into a different form of investment. Securitization therefore broadens the investor base because

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<table>
<thead>
<tr>
<th>Economy</th>
<th>Year</th>
<th>Life</th>
<th>Non-life</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>2004</td>
<td>1,803</td>
<td>3,684</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2004</td>
<td>811</td>
<td>478</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>2004</td>
<td>1,846</td>
<td>1,622</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2003</td>
<td>1,683</td>
<td>460</td>
</tr>
<tr>
<td>Philippines</td>
<td>2004</td>
<td>1,439</td>
<td>424</td>
</tr>
<tr>
<td>Thailand</td>
<td>2004</td>
<td>2,527</td>
<td>439</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>2005</td>
<td>926</td>
<td>229</td>
</tr>
<tr>
<td>Singapore</td>
<td>2004</td>
<td>1,989</td>
<td>588</td>
</tr>
</tbody>
</table>

Source: World Bank staff estimates.

Note: The Herfindhal index is defined as the sum of squares of the market shares of each individual firm. It ranges from 0 (competitive or equally distributed) to 1 (monopolistic or dominated by one firm). Alternatively, it can range from 0 to 10,000, if percents are used as whole numbers (e.g. 75 instead of 0.75). World Bank comparisons across markets suggest that a Herfindhal index value of around 1,200 to 1,500 would be the natural range for non-life insurance markets, and because of greater economies to scale and lower concerns of risk aggregation, around twice that level for life insurance.
it caters to investors with different risk/return appetites who are willing to bear incremental credit, prepayment, and liquidity risks in return for a higher yield. And for originators, such as corporations, asset securitization provides a new and potentially cheaper form of financing.

Securitization is increasingly being used for a wide variety of purposes—ranging from facilitating access to capital markets for small and medium-size enterprises and the transfer of credit risk from banks to capital markets, to the transfer of both banks’ and non-bank financial institutions’ mortgage loans to capital markets. In East Asia thus far, most of the securitization activity has taken place in Hong Kong (China), Korea, Malaysia, and Singapore, although a few deals have taken place in Thailand and in the Philippines.

Securitization requires that certain legal, regulatory, and accounting elements be in place. In particular, it requires legislation that allows for the creation, transfer, and perfection of ownership interests (Table 9). While the details vary among jurisdictions, a generic requirement for securitization is to be able to ensure a true sale—that is, the irrevocable transfer of assets to an insubstantive special-purpose vehicle to which the asset seller has no ties of ownership or control. The transaction must withstand any legal claim in bankruptcy against the asset seller (bankruptcy remoteness).

In general, the elements of law that are typically associated with securitized transactions in advanced markets, involving existing or future claims originated by financial intermediaries, are present in the three common-law jurisdictions—Hong Kong (China), Malaysia, and Singapore. The civil-law countries (China, Indonesia, Korea, the Philippines, and Thailand) have all introduced, or plan to introduce, enabling laws that to different extents permit the creation of securitized transactions recognized by international standards. But, except in Korea, where the relevant laws are well established and actively used, these laws have yet to be tested either by a large number of transactions or in conditions of stress or challenge.

While securitization offers strong potential benefits for originators and investors and can be an

<table>
<thead>
<tr>
<th>Economy</th>
<th>Sale, assignment or other conveyance of assets by originators to securitization vehicles</th>
<th>Creation, maintenance and operation of special-purpose vehicle</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Legal framework for creating, transferring and perfecting ownership interests</td>
<td>Restrictions on types or terms of financial assets that can be transferred</td>
<td>Default and foreclosure and/or repossession at level of individual assets</td>
</tr>
<tr>
<td>China</td>
<td>1–2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2–3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Philippines</td>
<td>2–3</td>
<td>2–3</td>
<td>1–2</td>
</tr>
<tr>
<td>Thailand</td>
<td>3–4</td>
<td>3–4</td>
<td>3–4</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Singapore</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Arner and others 2006.

Notes: Score 1 (lowest) to 5 (highest). Scores such as 2–3 represent an intermediate appraisal between two given levels. These split scores are intended to reflect degrees of uncertainty as to commercial outcomes. There are contractual restrictions as to the transfer of financial claims in all review markets, except generally in Hong Kong (China) and Singapore. The table includes no appraisal of national accounting standards. It makes no attempt to summarize regulatory restrictions on investors, which may have just as great an impact on the early stages of market development. Such restrictions have traditionally been widespread, and only those in Hong Kong (China), Korea, and Singapore have been subject to relaxation since 2000, in relation to both the professional and retail segments.
important means of risk transfer, it also introduces risks of its own which, in turn, require the development of risk-management instruments and the presence of reliable counterparts. Since the nature of the risks can vary depending on the type of securitization, there may also be an argument for sequencing the more complicated forms of securitization in line with the development of the requisite market players and derivatives markets. Thus, even if simple securitization can be implemented, it may be more appropriate for some countries to wait to pursue the more complicated, tranched securitization deals involving complex credit risks, foreign exchange risks, and interest rate risks, because to reduce these risks requires many different market players and risk-management tools. Without these tools, risks are often substantially higher in some forms of securitized products. Thus in promoting securitization in the region, it is important for countries to keep in mind the need to also develop the derivatives markets.

Harnessing gains from integration

Although regulations prohibiting or restricting capital inflows and outflows have been progressively reduced (and except in China, are now fairly minimal), several other factors continue to impede cross-border transactions in East Asia’s bond markets. These include withholding taxes; the lack of hedging instruments; and differences in market practices and infrastructure (for example, in the extent of documentation needed, trading platforms and conventions, procedures for clearance and settlement and custodian systems, or settlement of foreign exchange trades); as well as in credit rating, legal and regulatory systems; and accounting and auditing standards. These factors need to be addressed—and, as noted above, several of them are being dealt with by ASEAN+3 working groups.

A key building block of a bond market is the assessment of credit risk. From the perspective of cross-border investments, however, there are several issues. First, although the three big international rating agencies operate in the region, these rate only a small number of Asian firms and financial institutions that issue in international markets; hence the smaller companies do not get rated. Second, the standards of national rating agencies differ widely, making it difficult for foreign investors to assess investment possibilities. Third, no finely graded ratings within the region are available to potential investors; at present there are only international and national rating scales.

Policymakers in the region may therefore wish to consider the pros and cons of establishing a regional credit-rating agency. Such an agency could ensure that an assigned rating would denote the same probability of default in any East Asian country; it could provide more finely graded credit ratings than are now available on a regional scale; and it could help smaller companies to acquire ratings for their international issuances (to the extent that there is cross-subsidization). It could also help to develop capabilities for assessing credit risk across the region and to provide the necessary training for the national rating agencies to speed the convergence of standards across the region.

The merit of setting up a regional credit-rating agency would hinge critically on (1) the growth of cross-border issuance and investments over the next five to ten years, and (2) the credibility that such an agency could establish for itself. This, in turn, would depend on the governance structure that is established. In particular, the shareholder structure would need to follow certain key principles: shareholders would need to be seen as credible and fostering independence of operations; shareholdings would need to be widely dispersed (and fortified by a strong shareholders’ agreement); the maximum shareholding would need to be limited to say 5–10 percent, unless the shareholder were an independent third party such as a rating agency or multilateral agency; and a balanced regional representation in the shareholding structure would be essential.

Ensuring appropriate risk-sharing and risk transfer

As noted above, it is possible that risks will be shifted in a manner that is not evident, from stronger private banks to public banks and from banks to the more weakly regulated non-bank financial institutions. Such players may not adequately assess and manage the risks they are taking on. Strengthening the corporate governance of these institutions is clearly of paramount importance. So are proactive measures by regulators and supervisors to better monitor risks and to strengthen supervision on a consolidated basis.

Globally, the traditional separation among banking, insurance, and securities markets is breaking
down as a result of technological innovations, deregulation, and liberalization. Financial intermediaries now offer products that partly resemble those traditionally offered by other intermediaries. The securitization of traditional forms of credit (such as mortgages, credit-card receivables, and commercial loans) and the proliferation of increasingly sophisticated ways of building, repackaging, and trading risks, are weakening the distinction between equity, debt, and loans (such as through the creation of hybrid instruments). The development of new products is giving rise to new forms of linkages across financial intermediaries and markets. And competition is spurring different types of financial intermediaries to merge, producing large financial conglomerates that provide a broad range of services across the financial segments.

These developments pose challenges for risk monitoring, regulation, and supervision. In response to these challenges, a number of countries worldwide have started to examine how they regulate and supervise financial intermediaries.

Some, including Korea and Singapore, have adopted so-called unified or integrated supervision, in which a single agency is responsible for supervising the entire financial system. But the prevailing model in the region is one of multiple supervisors, in which at least one agency supervises banks, another oversees securities firms, and a third oversees insurance companies. Economies with multiple supervisors include China, Hong Kong (China), Indonesia, the Philippines, and Thailand.

Countries that have adopted unified supervision have done so in the belief that a single supervisor can be more effective than multiple supervisors in monitoring the soundness of individual financial institutions as well as the vulnerabilities of the entire financial system. In particular, they believe that unified supervision allows them to better understand and monitor risk transfers among different financial intermediaries and market segments; to better assess the real and potential impact of industry- and market-wide issues, such as market turbulence, that affect the financial system; to better understand the cross-sectoral nature of the business of financial conglomerates; to more easily develop policies toward the risks affecting a financial conglomerate as well as its single entities; and to use a consistent approach to monitoring similar financial products and services, regardless of what type of financial institution provides them.

However, arguments can also be made against unified supervision. First, a mega-regulator may become excessively bureaucratic in its procedures and slow to react to emerging problems. Second, the effectiveness of supervision may be compromised if a new integrated agency fails to develop a consistent framework of regulation and supervision for the financial sector. While a certain degree of harmonization of supervisory practices across the banking, insurance, and securities supervisors is desirable to reduce regulatory arbitrage, it is important to recognize that the particular characteristics of each industry require specific regulations. It should also be noted that if the supervision of financial markets is poor under separate entities, it will still be poor under a unified regime, unless weaknesses in regulation and supervision are effectively addressed. Finally, if the process of merging is not managed properly, it may result in the departure of experienced personnel and the demoralization of the rest of the staff, affecting the overall supervisory effectiveness during the transition period.

Conclusions

As is now well recognized in the region, there is a need to focus on further developing the securities markets and the corporate bond markets in particular. A key constraint in the bond markets is the lack of liquidity, which affects efficiency and the overall role these markets are able to play. To enhance liquidity in the bond markets, non-bank financial institutions need to develop further, both in asset size and institutional sophistication. These institutions can play an important role in mobilizing and channeling long-term resources through securities markets to meet the financing requirements of corporations as well as those of housing and infrastructure projects. The further development of the bond markets will also require efforts to strengthen information disclosure and the exercise of corporate governance, and their institutional underpinnings. Since many of these elements are important for the robust functioning of the financial markets more generally, addressing them will help to advance the broader agenda of financial sector development.

Greater integration of securities markets, especially of bond markets, across national borders could also yield strong benefits. Bond markets in individual East Asian countries have been too small and fragmented to fully benefit from the economies of
scale that are generally associated with successful bond market development. Thus, regional cooperation to remove some of the remaining impediments to cross-border investments can be very useful. And creating regional financial products, such as regional index funds, will further facilitate investment within the region.

Concurrent actions at the domestic level are essential if the full benefits of regional cooperation are to be reaped. For instance, not only does the still-narrow base of institutional investors need to be developed at the domestic level, but if significant cross-border investment is to take place, differences in credit-rating standards, in legal and regulatory frameworks, and in accounting and auditing standards and practices also need to be addressed. Eventually these standards, regulations, and practices need to converge if countries are to be able to fully integrate their financial markets and reap the resulting benefits.

Policymakers also need to be aware that, while markets and instruments for transferring and sharing risks offer tremendous potential for enhancing the efficiency of financial markets and for better distributing risks among market players, inappropriate risk transfer also poses dangers. Strengthening the corporate governance of financial institutions, as well as the ability to monitor and supervise these institutions, will be key in this regard.

**Outline of the Report**

Chapter 1 reviews developments in the financial systems of the region and emphasizes the importance of efforts to strengthen and diversify these systems, and Chapter 2 describes progress and issues in regional financial integration, emphasizing the complementarity between the needed regional and domestic policy reforms. Subsequent chapters look at the domestic measures needed to further develop the financial markets. Chapter 3 looks at the institutional infrastructure—legal, regulatory, accounting, and auditing standards and practices—that is needed for good information disclosure and the effective exercise of corporate governance. These are the most important underpinnings to address for the development of the financial sector as a whole. The report then looks at the key issues and policy challenges to be addressed in the banking sector (Chapter 4) and in the development of the securities markets (Chapter 5). Given the potential benefits of more diversi-

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**FIGURE 7 Structure of the Report**

<table>
<thead>
<tr>
<th>Regional-level initiatives to facilitate cross-border flows and deepen markets through integration</th>
<th>Domestic-level measures to develop financial intermediaries and markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABF II bond fund to invest in local currency bonds: identifying regulatory bottlenecks in domestic markets to cross-listing; built-in incentives to reduce regulatory barriers due to allocation of country weights in PAIF. Possibility of creating new indexes: deepening domestic markets.</td>
<td>Institutional infrastructure (chapter 3)</td>
</tr>
<tr>
<td>ABMI: regional infrastructure facilitating issuance at regional level and helping to deepen domestic markets</td>
<td>Banking (chapter 4)</td>
</tr>
<tr>
<td>Institutional investor demand for cross-border investment opportunities</td>
<td>Origination of loans for securitization</td>
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<td>Development of derivatives can facilitate cross-border investment</td>
<td>Securities markets (chapter 5)</td>
</tr>
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<td>Equities</td>
<td>Bondsmarkets</td>
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<td>Bonds</td>
<td>NBFIs (chapter 6)</td>
</tr>
<tr>
<td>Institutional investor base</td>
<td>Derivatives &amp; securitization</td>
</tr>
<tr>
<td>Markets for risk sharing (chapter 7)</td>
<td>Growing linkages across market segments (chapter 8)</td>
</tr>
</tbody>
</table>
fied financial systems, and the fact that countries in the region lag somewhat behind in the development of their bond markets, Chapter 6 reviews means of developing the investor base (pension funds, insurance, and mutual funds) in order to support deeper securities markets. Chapter 7 discusses the development of instruments and mechanisms for sharing and transferring risk. Further growth in derivatives and securitization would advance the development of securities markets as well as of the financial system overall. Chapter 8 concludes, discussing the regulatory and supervisory challenges that may arise from greater linkages across financial market segments, including through the use of derivatives and securitization.

Figure 7 summarizes the structure of the report, highlighting the potential synergies and two-way interactions between the measures that are being taken at the regional level to develop the bond markets and the policy measures at the domestic level that can lead to more developed and diversified financial markets in the region.
Moving Toward a More Robust and Diversified Financial System

Since financial markets and intermediaries perform the key functions of financial systems in different ways and each may be better at certain aspects, they tend to be complements, or imperfect substitutes (Box 1.1). Indeed, financial intermediaries and markets are also complementary in that the former are key participants in financial markets and tend to play a role in helping these markets function well. A classic example of this is the mutual fund industry.25

At the same time, however, because financial intermediaries and markets are not perfect complements, and can substitute for each other up to a point, a broadly based financial system may be more stable and robust in times of economic downturns or crisis.26

Though the distinction among financial intermediaries and markets has become blurred worldwide over the past five to ten years, driven by deregulation, liberalization, and technological innovations, it is still the case that a diversified financial structure will generally better serve the needs of the real sector. And, by offering a

**BOX 1.1 Importance of a Diversified Financial System**

Diversifying a financial system is beneficial because the participation of different types of specialized intermediaries tends to be accompanied by the provision of a wider variety of services that cater to the needs of different agents. Another reason is that financial intermediaries and markets tend to perform the core functions of a financial system—resource mobilization, resource allocation, and management of financial risks—in different ways, and each may be better at certain aspects of these functions.3

On the one hand, it has been argued that financial intermediaries are better able to screen potential investment opportunities because they can better mitigate the so-called free rider problem that is associated with the private production of information.5 Because private loans are not traded, other institutions or market participants cannot freely ride on the intermediary that is monitoring and screening the project. As a result, financial intermediaries have greater incentives to acquire costly information.

*(Continued)*
BOX 1.1 Importance of a Diversified Financial System (Continued)

Financial intermediaries may also be more effective at providing external finance to new firms that require staged finance, because intermediaries can more credibly commit to making additional funding available as a project develops. Financial markets are less effective at providing pre-committed staged financing, because it is generally not possible to get the owners of publicly traded securities to determine collectively whether additional funds should be provided.

On the other hand, it has been argued, when financial intermediaries enter into a debt contract with firms, they have a natural bias toward low-risk projects with a high probability of success. The disadvantage is that these low-risk projects also tend to produce low returns. Financial markets may be more likely to fund higher-risk projects, since with equity financing they share in the upside. Indeed, it has been argued that specialized intermediaries and financial markets can deal more successfully with uncertainty and innovation.

Financial intermediaries and markets also differ somewhat in their approaches to risk sharing. Standard risk diversification arguments concentrate mainly on cross-sectional risk sharing, which requires that individuals at a given point in time diversify their portfolio of assets. If there are fixed costs associated with each transaction of assets, financial intermediaries can take advantage of economies of scale to reduce the costs of holding a diversified portfolio of assets. Arguably, though, financial markets are an even better means to achieve cross-sectional risk sharing, because they allow individuals in the market to build the most suitable portfolio from a wide variety of assets.

As regards inter-temporal risk smoothing—of risks such as commodity or other macroeconomic shocks that cannot be diversified at a given point in time—financial intermediaries have an advantage over markets. Inter-temporal risk smoothing requires investors to accept lower returns than those the market offers in good times, in order to get higher returns than those the market offers in bad times. Because it requires the accumulation of large reserves in relatively safe assets, it is better provided by financial intermediaries. Markets cannot do this, since investors in markets continually adjust their portfolios in search of the highest rate of return.

---

a. There has been much debate as to whether financial intermediaries or financial markets are better for growth. This debate is based on the view that financial intermediaries and markets are strict substitutes. Overall, however, the evidence does not point to one or another being superior for growth. A third view suggests that financial intermediaries may provide complementary services to those of intermediaries and markets, and emphasizes that what matters is to create an environment in which both intermediaries and markets can function better. Finally, the law and finance view, which is consistent with the financial services view, emphasizes the importance of the legal environment and the enforcement of contracts.

b. The free-rider problem emerges when individuals who do not pay for information take advantage of the information that other individuals have paid for. A direct consequence of this problem is that it discourages the private market from producing enough information to eliminate the asymmetric information that leads to adverse selection and moral hazard.

Source: Dolar and Meh 2002.
TABLE 1.1 Structure of Financial Systems (percent of GDP)

<table>
<thead>
<tr>
<th>Economy</th>
<th>Bank assets</th>
<th>Equity market capitalization</th>
<th>Bonds outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>124.6</td>
<td>176.4</td>
<td>163.1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>31.1</td>
<td>14.6</td>
<td>49.8</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>37.9</td>
<td>130.1</td>
<td>95.3</td>
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<tr>
<td>Malaysia</td>
<td>100.9</td>
<td>169.09</td>
<td>159.4</td>
</tr>
<tr>
<td>Philippines</td>
<td>56.1</td>
<td>66.5</td>
<td>63.2</td>
</tr>
<tr>
<td>Thailand</td>
<td>79.7</td>
<td>129.2</td>
<td>103.6</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>205.1</td>
<td>337.5</td>
<td>444.6</td>
</tr>
<tr>
<td>Singapore</td>
<td>122.0</td>
<td>176.8</td>
<td>185.4</td>
</tr>
</tbody>
</table>


to the other financial segments (Figure 1.2). Much of the growth in bond markets (more than 50 percent of the growth during 1997–2004 in all economies in the region except Hong Kong (China) and Korea) has been on account of bonds issued by governments, largely to restructure banking systems. Although corporate bonds have provided a reasonable share of the growth in several countries, in most countries they remain a small proportion of the overall bond market.

Despite the progress made in diversifying financial markets, the banking sector remains dominant, accounting for around 58 percent of the region’s total financial assets at the end of 2005 (down from 63 percent in 1997).

The assets of institutional investors—pensions, insurance, and mutual funds—have also grown over the past few years, and now amount to US$1.5 trillion or around 45 percent of GDP in the region as a whole. The institutional investor base is much smaller in some countries than in others, however, and is still a very small percentage of GDP in China, Indonesia, and the Philippines (Figure 1.3). While the size of institutional investors typically grows along with a country’s per capita income, this is another area that countries in the region need to develop further.
FIGURE 1.2 Importance of Bank Assets Relative to Equity and Bond Markets

**a. Bank assets to stock market capitalization**

**b. Bank assets to bonds outstanding**

Source: Asian Bonds Online, BIS, IFS and WFE, WDI and World Bank Financial Structure Database.

FIGURE 1.3 Assets of Institutional Investors (percent of GDP)

**a. Assets of institutional investors, 2004**

**b. Assets of institutional investors**

Source: HSBC, Dalla 2005, BNM, BOT, OECD.
Regional Cooperation as a Means to Diversify Financial Markets

Financial integration provides investors with a broader range of investment opportunities while providing firms with a broader base of investors to tap for funding. Integration can enhance market liquidity, which may be very limited in segregated markets. And it can exert competitive pressures on markets and intermediaries, thus reducing transaction costs and increasing the incentives for innovation.

By providing an impetus to financial integration and potentially generating a wider set of dynamics, regional initiatives can help in further developing and diversifying the financial markets in the region. The potential gains to be reaped from greater integration range across the financial segments—banking, equity, and bond markets. However, it is the bond markets that are at present the least financially integrated, and in general, bond markets can benefit from scale economies.

Over the past few years, East Asian policymakers have undertaken several major initiatives to foster regional financial integration, particularly in the bond market, as a means to deepen and diversify financial markets. In this context, this chapter looks at the following set of questions:

- How financially integrated are countries in the region, both globally and among themselves? What is the scope for reaping benefits through further integration?
- How can the regional initiatives stimulate greater integration? What are the remaining key impediments to cross-border flows and greater integration, particularly with regard to bond markets, that countries could address in a coordinated manner at the regional level?
- How can the synergies between regional initiatives and domestic policy measures be maximized to deepen and diversify markets?

Extent of Financial Integration

East Asian economies are much more integrated with the rest of the world through capital inflows than through capital outflows. The region has traditionally received large inflows of capital from global markets, and now that flows have resumed since the 1997 crisis, it is once again the region with the largest inflows of capital.

Flows of outward investment from economies in the region—whether to other economies in the region or globally—are increasing but still relatively small (Table 2.1). Bank claims abroad...
are equivalent to 10–12 percent of GDP, on average, for economies in the region, except for Malaysia (around 25 percent of GDP) and Hong Kong (China) and Singapore. Portfolio holdings held abroad are much smaller, averaging 4–5 percent of countries’ GDP for portfolio debt assets, and less than 1 percent of GDP for portfolio equity assets.

### Bank claims

Cross-border bank claims outstanding on countries in the region have declined in aggregate since the financial crisis (from US$691 billion in 1995 to US$477 billion at end-2004), but they have increased in China, Malaysia, the Philippines, and to a lesser extent, the Republic of Korea, countering the overall trend. Elsewhere in the region (Indonesia, Singapore, and Thailand), the pattern is complex: while claims from banks outside the region have declined, those from banks within the region (“other”) have increased, in some cases quite significantly (Table 2.2).

Recent transactions point to an increasing interest in regional cross-border acquisitions, suggesting that interconnected banking markets could become an important channel for regional integration. During 2000–05, banks in Hong Kong (China) and Singapore made several investments in banks within the region (Appendix Table 2.1).

### TABLE 2.1 Holdings of Foreign Assets and Liabilities with the Rest of the World (percent of GDP)

<table>
<thead>
<tr>
<th>Economy</th>
<th>Other investments</th>
<th>Foreign direct investment</th>
<th>Portfolio equity</th>
<th>Portfolio debt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Liabilities</td>
<td>Assets</td>
<td>Liabilities</td>
<td>Assets</td>
</tr>
<tr>
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<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>51.2</td>
<td>5.5</td>
<td>6.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>17.1</td>
<td>9.9</td>
<td>12.9</td>
<td>4.7</td>
</tr>
<tr>
<td>Malaysia</td>
<td>47.4</td>
<td>24.1</td>
<td>36.8</td>
<td>10.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>46.2</td>
<td>12.1</td>
<td>15.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Thailand</td>
<td>25.0</td>
<td>10.7</td>
<td>32.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>194.2</td>
<td>257.1</td>
<td>273.2</td>
<td>243.1</td>
</tr>
<tr>
<td>Singapore</td>
<td>184.2</td>
<td>199.8</td>
<td>164.6</td>
<td>103.7</td>
</tr>
</tbody>
</table>

Source: IMF IFS.

Notes: “Other investments” assets and liabilities comprise all financial transactions not covered under direct investment, portfolio (equity and debt) investment, financial derivatives, or reserve assets. Major items in the “other investments” category are transactions in currency and deposits, loans, and trade credits.

### TABLE 2.2 Consolidated Bank Claims (US$ billions)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>China</td>
<td>1.7</td>
<td>5.7</td>
<td>17.6</td>
<td>14.0</td>
<td>16.1</td>
<td>26.8</td>
<td>12.9</td>
<td>34.0</td>
<td>48.3</td>
<td>80.6</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2.7</td>
<td>1.5</td>
<td>20.9</td>
<td>4.8</td>
<td>11.2</td>
<td>8.9</td>
<td>6.5</td>
<td>14.9</td>
<td>44.5</td>
<td>30.6</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>7.5</td>
<td>6.7</td>
<td>21.4</td>
<td>13.6</td>
<td>16.3</td>
<td>23.4</td>
<td>32.1</td>
<td>37.5</td>
<td>77.5</td>
<td>81.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.5</td>
<td>1.8</td>
<td>7.3</td>
<td>4.4</td>
<td>3.9</td>
<td>10.6</td>
<td>3.9</td>
<td>16.3</td>
<td>16.7</td>
<td>33.2</td>
</tr>
<tr>
<td>Philippines</td>
<td>2.9</td>
<td>1.6</td>
<td>0.9</td>
<td>2.4</td>
<td>2.8</td>
<td>5.5</td>
<td>1.5</td>
<td>10.2</td>
<td>8.3</td>
<td>19.8</td>
</tr>
<tr>
<td>Thailand</td>
<td>4.1</td>
<td>1.4</td>
<td>36.8</td>
<td>4.9</td>
<td>10.1</td>
<td>4.6</td>
<td>11.7</td>
<td>8.4</td>
<td>62.8</td>
<td>19.4</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>7.2</td>
<td>6.9</td>
<td>133.0</td>
<td>19.0</td>
<td>56.3</td>
<td>40.0</td>
<td>43.9</td>
<td>42.0</td>
<td>240.0</td>
<td>108.0</td>
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<td>Singapore</td>
<td>6.1</td>
<td>3.2</td>
<td>76.9</td>
<td>14.3</td>
<td>60.0</td>
<td>33.3</td>
<td>49.3</td>
<td>52.2</td>
<td>192.0</td>
<td>103.0</td>
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<td>East Asia region</td>
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<td>315</td>
<td>77.0</td>
<td>177.0</td>
<td>154.0</td>
<td>165.0</td>
<td>216.0</td>
<td>691.0</td>
<td>477.0</td>
</tr>
</tbody>
</table>

Source: BIS Consolidated Banking Statistics.

Note: The table shows the outstanding claims of foreign banks on countries in the region, broken down by these banks’ countries of origin. The “other” category, for which no breakdown is available, includes East Asian banks.
Portfolio investments

The East Asian countries have become more financially integrated in portfolio investments both with global markets and among themselves over the past few years.

Integration through portfolio investments has expanded (Table 2.3). Since 1997, the region has seen a large rise in inward portfolio-equity investments (from US$131 billion to US$474 billion) and bond investments (from US$81 billion to US$149 billion). The region’s outward investments have also grown over this period: those in equity have risen from US$19 billion to US$267 billion, and those in bonds from US$20 billion to US$352 billion.

Much of the activity reflects investments to and from the new industrial economies (NIEs) of Hong Kong (China), Korea, and Singapore. The NIEs have substantially increased their bond and equity holdings both outside and within East Asia. Their investments in one another’s economies, and particularly in bonds, have grown rapidly (from US$1 billion in 1997 to US$23 billion in 2004), as have their investments into developing East Asian countries, in both equity and bonds (to US$38 billion and US$29 billion respectively).

Developing East Asian countries’ holdings of equities have increased in the United States, Japan, and the East Asian new industrial economies, as well as within other developing East Asian countries. Developing East Asian countries’ bond investments have remained much more concentrated; they have mainly been directed toward the United States, Japan, and the European Union, and only to a much lesser extent to the East Asian NIEs. And, within developing East Asia, cross-border holdings of bonds remain very small, at around US$0.1 billion at end-2004.

In equity markets the increased integration, both globally and within East Asia, is corroborated in the increased correlations of equity returns across countries (Table 2.4).

Two separate pieces of econometric analysis also corroborate this increase in integration (Box 2.1).

The fact that, despite the recent trends of greater integration, the correlations in equity returns are still

---

**TABLE 2.3 Portfolio Investment Assets and Liabilities (US$ billions)**

<table>
<thead>
<tr>
<th>Region</th>
<th>United States</th>
<th>Japan</th>
<th>European Union</th>
<th>East Asian new industrial economies</th>
<th>Developing East Asia</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As recipients:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Asia</td>
<td>61.7</td>
<td>192.0</td>
<td>7.6</td>
<td>17.4</td>
<td>43.7</td>
<td>174.0</td>
<td>8.8</td>
</tr>
<tr>
<td>NIEs</td>
<td>47.3</td>
<td>160.0</td>
<td>5.5</td>
<td>12.5</td>
<td>35.5</td>
<td>138.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Dev EA</td>
<td>14.4</td>
<td>32.4</td>
<td>2.0</td>
<td>4.9</td>
<td>8.1</td>
<td>36.7</td>
<td>6.0</td>
</tr>
<tr>
<td>As investors:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Asia</td>
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<td>9.1</td>
<td>4.8</td>
<td>69.1</td>
<td>3.5</td>
</tr>
<tr>
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<td>9.0</td>
<td>4.4</td>
<td>68.9</td>
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</tr>
<tr>
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<td>0.3</td>
<td>0.0</td>
<td>0.1</td>
<td>0.4</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Bonds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As recipients:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Asia</td>
<td>33.3</td>
<td>25.1</td>
<td>21.6</td>
<td>11.2</td>
<td>18.9</td>
<td>46.0</td>
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<tr>
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<td>3.7</td>
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<td>9.5</td>
<td>2.1</td>
<td>119.0</td>
<td>1.2</td>
</tr>
<tr>
<td>NIEs</td>
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<td>78.5</td>
<td>1.0</td>
<td>9.4</td>
<td>2.0</td>
<td>117.0</td>
<td>1.0</td>
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<tr>
<td>Dev EA</td>
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<td>0.0</td>
<td>0.2</td>
<td>3.1</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Source: IMF, Coordinated Investment Portfolio Survey.

Notes: The table shows holdings in equities and bonds, with the East Asia region both as a recipient of investments from other markets (United States, Japan, European Union, the East Asian new industrial economies, “developing East Asia,” and “others”), and as investor in these markets.

a. New industrial economies (NIEs) are Hong Kong (China), Korea, and Singapore.
b. Developing East Asia (Dev EA) is China, Indonesia, Malaysia, the Philippines, and Thailand.
## TABLE 2.4 Correlation in Equity Returns

<table>
<thead>
<tr>
<th>Economy</th>
<th>Indonesia</th>
<th>Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
<th>Japan</th>
<th>East Asia</th>
<th>United States</th>
<th>European Union</th>
<th>G-7</th>
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<td>0.09</td>
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<td>0.23</td>
<td>0.31</td>
<td>0.29</td>
<td>0.08</td>
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<td>0.11</td>
<td>0.18</td>
<td>0.15</td>
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<tr>
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<td>1.00</td>
<td>0.34</td>
<td>0.49</td>
<td>0.53</td>
<td>0.62</td>
<td>0.69</td>
<td>0.26</td>
<td>0.26</td>
<td>0.37</td>
<td>0.18</td>
<td>0.11</td>
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</tr>
<tr>
<td>Philippines</td>
<td>1.00</td>
<td>0.35</td>
<td>0.49</td>
<td>0.32</td>
<td>0.36</td>
<td>0.42</td>
<td>0.03</td>
<td>0.03</td>
<td>0.40</td>
<td>0.12</td>
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<td>1.00</td>
<td>0.46</td>
<td>0.49</td>
<td>0.49</td>
<td>0.36</td>
<td>0.42</td>
<td>0.28</td>
<td>0.28</td>
<td>0.48</td>
<td>0.21</td>
<td>0.23</td>
<td>0.16</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>1.00</td>
<td>0.50</td>
<td>0.59</td>
<td>0.53</td>
<td>0.53</td>
<td>0.51</td>
<td>0.17</td>
<td>0.17</td>
<td>0.51</td>
<td>0.31</td>
<td>0.37</td>
<td>0.07</td>
</tr>
<tr>
<td>Singapore</td>
<td>1.00</td>
<td>0.70</td>
<td>0.51</td>
<td>0.70</td>
<td>0.51</td>
<td>0.69</td>
<td>0.47</td>
<td>0.47</td>
<td>0.55</td>
<td>0.47</td>
<td>0.55</td>
<td>0.31</td>
</tr>
<tr>
<td>Japan</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>East Asia</td>
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<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: Datastream, dividend-adjusted return indexes; except for G-7: Morgan Stanley Capital International (MSCI) return index.

Notes: First number in cell is before crisis (1990–July 1997); second number is after crisis (July 1999–June 2005). Malaysia’s lower correlations likely reflect not only the increased integration but also the imposition of capital controls during and in the aftermath of the crisis.
Analysis of equity returns suggests that the region is becoming more integrated in equity markets. Here we test the degree of integration of individual equity markets with markets in the rest of the region and with global markets by observing the underlying drivers of co-movements in equity returns. This "news-based" approach investigates integration indirectly by looking at how domestic return innovation is affected by regional or global news.\(^a\)

Central to this approach is the assumption that domestic returns can be decomposed into two components: the expected component and the unexpected component (or news). Conditional upon the expected component, shocks or news from regional or global markets will affect the return on domestic equity. Thus, as domestic markets become more integrated, the importance of regional or global news in explaining domestic returns is likely to increase.

The empirical equation for testing the effects of regional and global effects is given by the following GARCH (1,1):

\[
R_i = \alpha_0 + \alpha_i Z_{i,t-1} + \alpha_i \mu_{t-1}^G + \alpha_i \mu_{t-1}^R + \beta_i e_{G,t} + \beta_i e_{R,t} + \nu_{it}
\]

where \(R_i\) is the equity return of country \(i\), \(Z_i\) is a set of instruments consisting of lagged local dividend yields, and lagged returns, \(\mu_{t-1}^G\) and \(\mu_{t-1}^R\), are global and regional excess return, as described in Bekaert and others (2005), \(e_{G,t}\) and \(e_{R,t}\) are global and regional shocks, and \(\nu_{it} \sim N(0, \sigma_{\nu, it}^2)\), with conditional variance of:

\[
\sigma_{\nu, it}^2 = \gamma_0 + \gamma_i \nu_{i,t-1}^2 + \gamma_i \sigma_{G, t-1} + \gamma_i \sigma_{R, t-1}
\]

To test for parameter shifts before and after the Asian economic crisis, \(\beta\) after the crisis is defined as \(\beta_{\text{prior}} + \beta_{\text{after}}\), where \(I\) is the after-crisis indicator variable which takes the value 1 after July 13 1999. The significance of the shift in \(\beta\) is tested using the Wald test.

The results of the first integration test are given by the \(\beta\)s of Equation 1, which directly measure the volatility spillover, i.e., the intensity of regional and global news to domestic equity returns. As shown in the table below, they suggest that regional integration has increased significantly.

### Estimates for Volatility Spillover Coefficients

<table>
<thead>
<tr>
<th>News</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Singapore</th>
<th>Thailand</th>
<th>Hong Kong</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional before the crisis</td>
<td>0.474</td>
<td>0.467</td>
<td>0.616</td>
<td>0.324</td>
<td>0.641</td>
<td>0.419</td>
<td>0.253</td>
</tr>
<tr>
<td>Wald test: no shift after the crisis (P-value)</td>
<td>(0.065)</td>
<td>(0.045)</td>
<td>(0.114)</td>
<td>(0.024)</td>
<td>(0.071)</td>
<td>(0.042)</td>
<td>(0.051)</td>
</tr>
<tr>
<td>Regional after the crisis</td>
<td>0.905</td>
<td>0.385</td>
<td>0.592</td>
<td>0.689</td>
<td>0.921</td>
<td>0.599</td>
<td>1.309</td>
</tr>
<tr>
<td>Wald test: no shift after the crisis (P-value)</td>
<td>(0.130)</td>
<td>(0.064)</td>
<td>(0.079)</td>
<td>(0.052)</td>
<td>(0.095)</td>
<td>(0.041)</td>
<td>(0.083)</td>
</tr>
<tr>
<td>US (global) before the crisis</td>
<td>0.286</td>
<td>0.625</td>
<td>0.391</td>
<td>0.624</td>
<td>0.389</td>
<td>0.705</td>
<td>0.173</td>
</tr>
<tr>
<td>Wald test: no shift after the crisis (P-value)</td>
<td>(0.088)</td>
<td>(0.079)</td>
<td>(0.106)</td>
<td>(0.122)</td>
<td>(0.084)</td>
<td>(0.140)</td>
<td>(0.081)</td>
</tr>
<tr>
<td>Wald test: after the crisis</td>
<td>0.383</td>
<td>0.099</td>
<td>0.171</td>
<td>0.008</td>
<td>0.662</td>
<td>0.132</td>
<td>0.000</td>
</tr>
<tr>
<td>Wald test: after the crisis</td>
<td>0.005</td>
<td>0.008</td>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
<td>0.045</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The second test is the variance ratio used by Ng (2000) and by Beale and others (2004). This ratio captures the proportion of volatility in domestic equity returns that is explained by regional or global news. The ratio is obtained by first computing the variance of the innovation component of domestic returns from equation 1:

\[
\sigma_{\nu, it}^2 = (\beta_{G} e_{G,t}^2) + (\beta_{R} e_{R,t}^2) + \sigma_{\nu, it}^2
\]
BOX 2.1 Tests of Integration in Equity Markets (Continued)

The global and regional variance ratios are then the proportion of the variance of domestic return innovations that is explained by global or regional news: \( VR_e^G = \left( \frac{\beta_e \sigma_e^G}{\sigma_e^R} \right)^2 \) and \( VR_e^R = \left( \frac{\beta_e \sigma_e^R}{\sigma_e^R} \right)^2 \) respectively.

As the following figure shows, these results are consistent with those of the first test. Most countries in the East Asia region (except Malaysia, whose results reflect the capital controls that the government imposed in the aftermath of the crisis) have become more integrated. In large part, this reflects greater integration within the region.

<table>
<thead>
<tr>
<th>Proportion of domestic stock return variance explained by regional or global shocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
</tr>
<tr>
<td>Indonesia</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

A. Regional and global shocks are calculated by fitting a univariate GARCH (1,1). For the regional model, regressors include instruments consisting of the regional average dividend yield, past returns, and past global excess returns. For the global (U.S.) model, the regressors are: instruments consisting of lagged changes in the 3-month Treasury bill yield, the lagged spread between the yields of a 3-month Treasury bill and a 10-year Treasury bond, and the lagged spread between the 3-month Treasury bill rate and the 3-month Eurodollar rate. China is not included in the analysis.

Source: Rahardja 2006.

enhancing integration through regional initiatives

Most of East Asia’s regional integration efforts in the financial arena have focused on developing a regional bond market. The following discussion reviews the measures taken in the bond markets and highlights factors that still impede cross-border integration, suggesting some areas for further inter-regional cooperation.

bond market measures

With their small size and fragmentation across national boundaries, bond markets in much of East Asia...
<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>Indonesia</th>
<th>Rep. of Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
<th>Japan</th>
<th>Germany</th>
<th>United Kingdom</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1.00</td>
<td>0.22</td>
<td>0.17</td>
<td>0.13</td>
<td>0.03</td>
<td>0.05</td>
<td>0.02</td>
<td>0.05</td>
<td>0.09</td>
<td>0.00</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1.00</td>
<td>0.17</td>
<td>0.19</td>
<td>-0.01</td>
<td>-0.09</td>
<td>0.06</td>
<td>-0.12</td>
<td>0.01</td>
<td>0.08</td>
<td>-0.03</td>
<td>-0.04</td>
<td>-0.08</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>1.00</td>
<td>0.13</td>
<td>0.26</td>
<td>-0.03</td>
<td>-0.03</td>
<td>0.53</td>
<td>0.49</td>
<td>0.13</td>
<td>0.46</td>
<td>0.37</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.00</td>
<td>0.03</td>
<td>0.23</td>
<td>0.39</td>
<td>0.50</td>
<td>0.26</td>
<td>0.35</td>
<td>0.27</td>
<td>0.34</td>
<td>0.35</td>
<td>0.27</td>
<td>0.33</td>
</tr>
<tr>
<td>Philippines</td>
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<td>0.03</td>
<td>0.15</td>
<td>0.15</td>
<td>-0.06</td>
<td>0.14</td>
<td>-0.04</td>
<td>0.04</td>
<td>0.34</td>
<td>0.35</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.00</td>
<td>0.05</td>
<td>1.00</td>
<td>0.73</td>
<td>0.67</td>
<td>0.73</td>
<td>0.64</td>
<td>0.64</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Hong Kong (China)</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>1.00</td>
<td>0.36</td>
<td>0.36</td>
<td>0.61</td>
<td>0.54</td>
<td>0.66</td>
<td>0.66</td>
<td>0.66</td>
<td>0.87</td>
<td>0.87</td>
<td>0.78</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>0.27</td>
<td>0.24</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td>0.78</td>
<td></td>
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</tr>
<tr>
<td>Germany</td>
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<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>0.92</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>United Kingdom</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>United States</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

have not been able to benefit fully from the economies of scale that are generally associated with successful bond-market development. Some of the regional integration measures that governments have taken address what may be termed demand-side constraints (from the perspective of investors) while others address the supply side (from the perspective of issuers).

“Demand-side” measures

Under the Executives’ Meetings of East Asia–Pacific Central Banks (EMEAP)\(^\text{29}\), two Asian Bond Funds have been launched using a portion of EMEAP’s international reserves (Box 2.2).

The first of these funds, the Asian Bond Fund 1 (ABF1), pooled US$1 billion of reserves and invested in U.S. dollar-denominated government and quasi-government bonds of eight ASEAN+3 countries. The second (ABF2), of US$2 billion, actually consisted of nine separate funds: a Pan Asian Bond Index Fund (PAIF) and eight single-country funds. ABF2 is investing in local currency denominated sovereign and quasi-sovereign bonds. Its aim is to give both retail

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**BOX 2.2 The Asian Bond Fund Initiative**

The first Asian Bond Fund (ABF1) was launched in June 2003, and the second, ABF2, was launched in April 2005. ABF1 pooled US$1 billion of reserves of the eleven EMEAP economies to invest in U.S. dollar-denominated government and quasi-government bonds. ABF2, of US$2 billion, has invested in local-currency-denominated government and quasi-government bonds and consists of nine funds: the Pan Asian Bond Index Fund (PAIF) and eight single-country funds. These funds are being managed by private-sector fund managers, who have been given the mandate to manage them passively to replicate bond indexes provided by the International Index Company. Thus each of the eight single-country funds replicates a local currency bond market index, while PAIF replicates the iBoxx Pan Asia index. PAIF is the first low-cost, passively managed investment fund invested in the eight EMEAP local bond markets and the first foreign fund to have direct access to China’s interbank bond market. PAIF was listed on the Hong Kong (China) Stock Exchange in August 2005, and listings on other stock exchanges will be considered, depending on demand from local investors and on local regulations.

During phase one, ABF2 was limited to the reserves of the central banks. Since then, the fund has been enlarged through private placements by institutional investors, participating dealers, and market makers. Other investors will be able to acquire units on the secondary market. The strategy has been designed to keep costs low and avoid the volatility that is usually associated with a sale-driven initial public offering.

Investors can trade units in the fund in two ways: they can go to its trustees through dealers to buy or redeem units at the day’s closing net asset value, thus engaging in a transaction in the primary market, or, because PAIF is an exchange-traded fund, they can trade throughout the day on the stock exchange, thereby operating in the secondary market (see figure below).
BOX 2.2 The Asian Bond Fund Initiative (Continued)

To concentrate liquidity in the secondary market, there will be some restrictions on trading PAIF units in the primary market. Nonetheless, the primary market will continue to provide an important means of arbitrage to ensure that the secondary market prices stay in line with the fund’s net asset value. In the primary market, PAIF will follow the participating dealer model, which limits the daily subscriptions and redemptions to dealers who have signed an agreement with the fund manager. To help the manager deal with cash inflows and outflows, there will be a limit on the total daily volumes and the manager will charge a dilution fee. However, there will be no such limit or dilution fee for transactions that involve the exchange of a basket of bonds (i.e. in-kind subscriptions or redemptions for shares). Engaging in such transactions will be at the discretion of the fund manager. In the secondary market, the fund manager will appoint market makers to provide liquidity in the trading of units on the stock exchange. The market makers will be expected to maintain tight bid and offer quotes on the exchange, and to seize opportunities for arbitrage by closely monitoring the fund’s net asset value and comparing it with the prices on the exchange.

Because it is an exchange-traded fund (ETF), PAIF should appeal to a broad range of investors. Exchange-traded funds (ETFs)—which are index funds representing a basket of stocks that trade on the exchange—have several advantages. First, they offer the diversification benefits of mutual funds but are traded like stocks. Thus, unlike mutual funds that are priced once a day at the close of business, ETFs can be traded intra-day, thereby offering investors the opportunity to bet on the direction of shorter-term market movements through the trading of a single security. Also, unlike mutual funds, ETFs can be used for speculative trading strategies such as short selling and trading on margins. In short, an ETF allows an investor to trade the entire market (covered by the index the ETF mirrors) as though it were a single stock. Second, there are no minimum purchase sizes: investors can purchase as few shares of an ETF as they want—a feature that may appeal to smaller retail investors. Finally, the unique structure of an ETF enables those investors (generally institutional investors) who are trading large volumes to obtain in-kind redemptions, i.e. to redeem them for shares of the stock that the ETF tracks. This arrangement minimizes the tax implications for an investor exchanging the ETF, since the investor can defer most taxes until the investment is sold.

Source: Ma and Remolona 2005.

and institutional investors access to local bond markets in the region in a transparent and cost-effective manner. In particular, by reaping economies of scale that can be obtained by passively tracking an index, costs can be kept relatively low and transparent.

The Pan Asian Bond Index Fund (PAIF) is designed to be open-ended as well as exchange-listed. Its design, whereby the primary market can provide an important means of arbitrage to ensure that the secondary market prices stay in line with the fund’s net asset value, should also enhance efficiency. And by offering the advantages of an exchange-traded fund, PAIF should appeal to a broader range of investors.

ABF2 should also provide an impetus to broader market development in two ways. First, like ABF1, by being an actual fund it has allowed policymakers to learn from experience and has helped to identify critical impediments to cross-border listing and investing. Second, it is expected to spur the introduction of new instruments for investors: since the construction of the index and the compilation methodology will be published, managers of private funds can use these indexes as benchmark indexes and replicate or customize them for their fixed-income products.

“Supply-side” measures

Working groups under ASEAN+3 and APEC have addressed some of the supply-side constraints on cross-border investments, including the issuance of new securitized debt instruments; credit guarantee and enhancement mechanisms; foreign-exchange transaction and settlement issues; the issuance of bonds denominated in local currency by multilateral development banks, foreign agencies, and multilateral corporations; and local and regional credit-rating agencies.

Addressing remaining impediments to cross-border investments

What are some of the remaining impediments to greater cross-border investments and integration of financial markets within the region that countries could consider addressing at the regional level?

Regulations prohibiting or restricting capital inflows and outflows have been progressively reduced, and, except in China, they are now fairly minimal (Table 2.6).

But several other factors still impede cross-border transactions. They include taxation, a lack of
and multi-yield environments. To help investors address foreign exchange risk, all countries of the region have either an onshore forward foreign exchange market or an offshore non-deliverable forward market (Table 2.8). All except China and Korea make available local-currency funding for investment in debt securities to offshore investors providing proper documentation. But the costs of hedging foreign-exchange risk are high, and hedging interest-rate risk is somewhat more difficult, due to restrictions on foreigners’ access to onshore interest-derivatives markets and the unequal development of onshore derivatives markets.

Differences in standards and procedures are also a strong impediment. As discussed in Chapter 3, significant differences still exist in some of the institutional underpinnings of financial markets—notably different countries’ legal and regulatory frameworks, disclosure requirements, and accounting and auditing standards and practices—which will take time to harmonize across national boundaries.

Taxes can strongly deter foreign investors from participating in local markets. Recognizing this, over the past few years a number of countries have unilaterally, or under tax treaties, abolished their withholding taxes on nonresidents in order to encourage foreign participation in their bond markets. Several countries in the region have relatively high capital-gains taxes and/or interest-income taxes (Table 2.7). The issue is now being studied by the ASEAN+3 Working Group 1.

High costs of hedging foreign exchange risks and interest rate risks can also have important discouraging effects on trading, especially in multi-currency

### TABLE 2.6 Regulations Affecting Cross-Border Flows

<table>
<thead>
<tr>
<th>Financial segment</th>
<th>China</th>
<th>Indonesia</th>
<th>Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit markets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreigners can borrow locally</td>
<td>Y</td>
<td>N</td>
<td>L</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Residents can borrow abroad</td>
<td>L</td>
<td>Y</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Equity markets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreigners can buy locally</td>
<td>L</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>issue locally</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>A</td>
<td>Y</td>
<td>A</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Residents can buy abroad</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>issue abroad</td>
<td>A</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>Y</td>
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<td></td>
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</tr>
<tr>
<td>Foreigners can buy locally</td>
<td>N</td>
<td>A</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>issue locally</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>A</td>
<td>Y</td>
<td>A</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Residents can buy abroad</td>
<td>A</td>
<td>Y</td>
<td>Y</td>
<td>L</td>
<td>L</td>
<td>A</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>issue abroad</td>
<td>A</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Access to spot foreign exchange</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreigners can purchase bond</td>
<td>L</td>
<td>Y to</td>
<td>A to</td>
<td>A to</td>
<td>A to</td>
<td>NR</td>
<td>Y to</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>purchase bond</td>
<td>purchase bond</td>
<td>purchase bond</td>
<td>purchase bond</td>
<td></td>
<td>purchase bond</td>
<td></td>
</tr>
</tbody>
</table>

Source: IMF.

Notes: Y = yes; N = no; L = with restrictions or limits; A = approval required; NR = no restrictions.

Bond market in China: qualified foreign institutional investors only, and only if the bonds are listed on one of the mainland’s stock exchanges.
Other differences exist in market infrastructure and procedures. For example, Asian dollar bonds are cleared through the Euroclear and Clearstream International clearing houses, with virtually no settlement and counterparty risk. Local currency Asian bonds are cleared through countries’ own clearing houses, which are typically located in, but independent from, central banks and are often owned by the local exchange. To limit settlement risk, most countries work on the basis of real-time gross settlement and delivery versus payment systems.31 As regards procedures for settling foreign exchange trades, at present countries differ in the extent of documentation needed and the length of the settlement procedures.

In fact, although clearance and settlements systems are generally efficient, and current arrangements may not be a strong impediment, harmonization of market practices could facilitate cross-border investing and reduce its cost. Korea has recently made a proposal to look into developing Asian bond standards and procedures for the issuance of regional bonds. This may also encourage a convergence of national standards and practices in the region.

Possible new areas of regional cooperation

A key building block of a bond market is the assessment of credit risk. From the perspective of cross-border investments, however, there are several issues. First, although the three big international rating agencies operate in the region, they rate only a small number of Asian firms and financial institutions that issue in international markets; hence the smaller companies do not get rated.32 Second, national rating agencies’ standards differ widely, making it difficult for foreign investors to assess investment possibilities. Third, no finely graded ratings within the region are available to potential investors; at present there are only international and national rating scales.

A regional credit-rating agency?
Policymakers in the region may therefore wish to consider the pros and cons of establishing a regional credit-rating agency. Such an agency could ensure that an assigned rating would denote the same probability of default in any East Asian country; it could provide more finely graded credit ratings than are currently available on a regional scale; and it could help smaller companies to acquire ratings for their international issuances (to the extent that there is cross-subsidization). It could also help develop capabilities for assessing credit risk and provide the necessary training for the national rating agencies to speed the convergence of standards across the region.

The merit of setting up a regional credit-rating agency would hinge critically on (1) the growth of cross-border issuance and investments over the next five to ten years, and (2) the credibility that such an agency could establish for itself. This, in turn, would depend on the governance structure that is established. In particular, the shareholder structure would need to follow certain key principles: shareholders would need to be seen as credible and fostering independence of operations; shareholding would need to be widely dispersed (and fortified by a strong shareholders’ agreement); the maximum shareholding would need to be limited to say 5–10 percent, unless...
## TABLE 2.8 Availability and Access to Derivatives Markets for Cross-Border Investors

<table>
<thead>
<tr>
<th>Type of derivative</th>
<th>China</th>
<th>Hong Kong (China)</th>
<th>Indonesia</th>
<th>Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Singapore</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-shore foreign-exchange forward</td>
<td>Up to 12 months</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
</tr>
<tr>
<td>Non-resident access to onshore forward</td>
<td>Prior approval</td>
<td>No restriction</td>
<td>Allowed to hedge principal and coupon</td>
<td>Allowed to hedge principal and coupon</td>
<td>Allowed to hedge principal and coupon</td>
<td>Allowed to hedge principal and coupon</td>
<td>Allowed to hedge principal and coupon</td>
<td>Allowed to hedge principal and coupon</td>
</tr>
<tr>
<td>Foreign-exchange market</td>
<td>NDF liquid</td>
<td>None</td>
<td>Liquid</td>
<td>None</td>
<td>NDF liquid</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
</tr>
<tr>
<td>Interest-rate swap market</td>
<td>No</td>
<td>No</td>
<td>Liquid</td>
<td>Only receive IDR rates</td>
<td>Allowed to hedge bond-related risk</td>
<td>Allowed to hedge bond-related risk</td>
<td>Allowed to hedge bond-related risk</td>
<td>Allowed to hedge bond-related risk</td>
</tr>
<tr>
<td>Non-resident access to interest-rate swap market</td>
<td>No market</td>
<td>No restriction</td>
<td>Liquid</td>
<td>Illiquid</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Liquid</td>
</tr>
<tr>
<td>Cross-currency swap market</td>
<td>No</td>
<td>Liquid</td>
<td>Liquid</td>
<td>Only receive IDR rates</td>
<td>Allowed to hedge bond-related risk</td>
<td>Allowed to hedge bond-related risk</td>
<td>Allowed to hedge bond-related risk</td>
<td>Allowed to hedge bond-related risk</td>
</tr>
<tr>
<td>Non-resident cross-currency swap market</td>
<td>No market</td>
<td>No restriction</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bond futures</td>
<td>No</td>
<td>Illiquid</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Exchange-traded derivatives</td>
<td>No</td>
<td>Liquid</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Sources: Barclays Capital, IMF, Takeuchi 2005, and country sources.

NDF = non-deliverable forward; IDR = Indonesian Rupiah.

a. To settle and/or hedge a purchase of local-currency bonds.
the shareholder were an independent third party such as a rating agency or multilateral agency; and a balanced regional representation in the shareholding structure would be essential.

Also, to ensure market performance, it would be crucial to have a sunset clause whereby, if there is government involvement, governments would divest their shares after a period of time (Box 2.3).

**Regional information sharing?**

With the growing potential for cross-border banking and other credit flows within the region, there may

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**BOX 2.3 Rationale and Feasibility of Setting Up a Regional Credit-Rating Agency**

Although domestic and international credit-rating agencies have achieved a high penetration in East Asia, they use only local and international scales. Thus investors do not have a rating scale that allows a fine differentiation between credits on an intraregional basis. Moreover, smaller corporations in the region that wish to issue cross-border are not well served by existing rating agencies.

Though cross-border issuance and investments in East Asia are still relatively limited, the next five to ten years are likely to see much more demand by investors within the region for regional investment opportunities, and more cross-border issuance (including structured finance products). The region already has high levels of savings and investible funds with high net worth individuals, and the assets of institutional investors are also likely to increase. On the issuance side, the region’s infrastructure needs are large and will likely need to draw on cross-border investors.

It is not clear that this expansion can be handled by the international rating agencies alone, since their universe is much broader. There may be room for market specialization in offering the finer regional gradations that both international and regional investors may need as this segment grows.

Under what scenarios could a regional credit-rating agency be viable? A study commissioned by the World Bank and undertaken by the rating agency CRISIL looked at the potential viability of such a rating agency. The study looked at the potential profitability of the rating agency, assuming that the agency were to undertake both rating and advisory services. Key factors for success would include:

- Adequate business size and high capital levels;
- High-quality governance;
- Staff with adequate expertise;
- Support of the respective sovereigns in the region;
- Buy-in from international and domestic rating agencies active in the region; and
- Independence (and the perception thereof) from political pressures.

As regards ratings, cross-border issues in the region would be the predominant business opportunity. Cross-border issues could be rated on a regional scale that could encompass (1) issue ratings for sovereigns, state-owned entities, corporate entities, banks, and structured finance instruments; (2) issuer ratings for sovereigns; and (3) ratings for fixed income schemes of mutual funds.

The other key business activity would be advisory services to enhance financial market integration. This could involve providing independent and credible benchmarking and valuation tools which would be in the nature of (1) co-relating local scale ratings in two different economies; (2) setting widely acceptable standards for the valuation of bonds; and (3) offering consulting services to domestic rating agencies to enhance the scope and rigor of their ratings.

The potential profitability of a regional rating agency was examined under several scenarios of market share and capitalization. The process involved estimating regional cross-border issuance and projected growth over the next five years; projecting the market share of the agency in cross-border issuance; estimating rating fees; estimating revenues from advisory services; estimating all cost elements; and projecting financial statements.

The size of the bond market in the region was estimated at US$1.5 trillion in 2004. The study assumes that this market will grow at 14 percent annually to reach US$2.9 trillion in 2009. This growth is expected to be driven by structured finance issuances (with expected annual growth rate of 24 percent); infrastructure investments in these economies; issuance of bonds by multilaterals, and continued improvements in the regulatory environment and bond market infrastructure. Cross-border issuance is projected to grow at an annual average rate of about 30 percent, with issuance volumes increasing from US$75 billion in 2004 to US$281 billion in 2009. The largest potential markets are expected to be Korea, followed by Malaysia and China at the end of 2009.

(Continued)
Three different scenarios of market share were assumed: a market share of 10 percent after Year 5 of establishing the rating agency; a market share of 7.5 percent after Year 5 (base case), and a market share of 5 percent. Three different levels of initial capitalization were also examined: US$15 million, US$25 million (base case), and US$40 million. Thus nine different scenarios were examined altogether.

In four of the scenarios, the rating agency would make profits from Year 4 onward. These are the scenarios of all three levels of capital (US$15 million, US$25 million, and US$40 million) with a 10 percent market share at the end of Year 5, and the scenario of US$40 million of capital with a market share of 7.5 percent at the end of Year 5. In the remaining five scenarios, the agency would make a profit starting in Year 5. As the table below shows, in the base case of 7.5 percent market share and US$25 million in initial capital, the rate of return on investment would be 20.7 percent.

Arguably, the most important factor for success would be to ensure that the credit-rating agency enjoys full credibility. In particular, the shareholder structure would need to follow certain key principles, namely:

- Shareholders should be seen as credible and fostering independence of operations;
- Shareholding should be widely dispersed (and fortified by a strong shareholders’ agreement);
- The maximum shareholding by a single entity should be limited to say 5–10 percent, unless the shareholder is an independent third party such as a rating agency or multilateral agency;
- A balanced regional representation in the shareholding structure would be essential.

Potential shareholder for the regional credit-rating agency could be as in the figure below:
also be merit in considering regional mechanisms for sharing credit information. Such a mechanism—the Western Hemisphere Credit and Loan Reporting Initiative—has recently been put in place in Latin America, including the development of a common assessment methodology and comparable reports. The arguments that encouraged that region’s adoption of a common regional approach were that it would help countries that share similar difficulties in credit reporting to share knowledge, and that it would facilitate change in individual countries and lay the groundwork for future regional cooperation. (It is often the case that regional projects create peer pressure for countries to improve their systems.) In the European Union, publicly operated centralized credit risk registries share their data across country borders to help supervisors to assess risk concentrations and connected lending. Countries in East Asia may also wish to consider such a regional approach, given the importance of credit-information infrastructure in enhancing access to finance.

Both Regional and Domestic Policy Measures Are Needed

While regional cooperation can play an important role, the bulk of the policy measures needed to deepen and diversify markets will have to be taken at the domestic level. This is because the necessary deepening and diversification of markets largely depends on actions at the domestic level and also because the benefits of regional initiatives themselves depend on the complementary development of domestic markets.

Indeed, while regional initiatives have helped identify and remove several of the direct barriers to cross-border bond investments, cross-border bond flows (especially among the “developing” East Asia economies) remain quite small. Partly this reflects differences among countries in areas such as credit-rating standards, legal and regulatory systems, and accounting and auditing standards and practices; these differences add to costs and uncertainty for both issuers and investors and can deter cross-border flows. Partly, too, it reflects the fact that the region’s institutional investor base is still quite small. The regulatory, governance, and risk-management frameworks of institutions such as pension funds and insurance companies need to be strengthened to ensure these institutions have the incentive and ability to undertake cross-border investments. Domestic derivatives markets also need to be further developed and deepened, because limitations in this regard can reduce investors’ interest in cross-border investments. All these measures and actions need to be undertaken at the domestic level.
The provision of accurate and timely information, the exercise of corporate governance, and appropriate risk taking (risk management) are core attributes of well-functioning financial systems. These in turn need to be supported by two key institutional underpinnings: effective legal and regulatory framework and practices, and good accounting and auditing standards and practices. The East Asian countries have made considerable progress in strengthening regulations and standards—focus is now needed on effective implementation.

As is well known, financial markets are inherently subject to informational asymmetries. Funds are made available today in the expectation of returns in the future, in a context of limited and unequal information both with respect to the character of the borrower (or insider)—leading to potential problems of adverse selection—and with respect to the borrower’s subsequent behavior—potentially creating problems of moral hazard.

Where it is costly to acquire information and enforce the rights of finance providers, financial markets can never be fully efficient and arbitraged. Thus, the generation and dissemination of reliable and timely information, and the effective exercise of corporate governance at all levels, so that funds can be extended productively with an appropriate degree of risk taking, are core attributes of well-functioning financial systems (Figure 3.1).

In turn, these core attributes are shaped by deeper institutional underpinnings. Key among these underpinnings are a country’s legal framework and practices and incentive-compatible prudential regulations (specific to particular financial segments), because these features shape the extent of disclosure that is required of firms and financial intermediaries as well as the rights of shareholders and creditors to act upon the information they obtain. Also fundamental are the country’s accounting and auditing standards and practices, because these determine the quality of the information being disseminated.

These underpinnings have an important bearing on the functioning of all financial segments and markets and are discussed in this chapter, with a focus on the following questions:

- Where do countries in the region stand with respect to information disclosure and to the exercise of corporate governance more broadly?
- Which aspects of the key institutional underpinnings—shareholder rights, creditor rights and insolvency regimes, and accounting and auditing—should countries concentrate on strengthening?
The Exercise of Corporate Governance: An Overview

The exercise of corporate governance is important both for firms’ access to finance (see Chapter 5, Box 5.5) and for the growth and stability of financial systems. Since the health of the financial system depends on the underlying soundness of its individual components and its linkages, good corporate governance is important at all levels: firms (by shareholders, creditors, and other stakeholders); financial intermediaries (by shareholders, creditors, supervisors, and the market); and regulators and supervisors themselves (by governing bodies and the public).

The effective exercise of corporate governance depends on the degree and quality of information disclosure, and on the incentives and ability of providers of external finance and other stakeholders to act on the information disclosed. In turn, these factors are shaped by the legal framework and its enforcement, by the quality of accounting and auditing standards and practices, and by the overall corporate governance culture or practice.

The importance of corporate governance has increasingly been recognized and, over the past few years, countries in the region have made significant efforts to strengthen the various elements that shape it. Table 3.1 shows market perceptions of where countries in East Asia stand with respect to the key elements of corporate governance. Rules and regulations pertaining directly to the exercise of corporate governance are seen to be weakest in China, Indonesia, and the Philippines. Enforcement is seen to be more widely problematic—particularly in Indonesia, the Philippines, and Thailand. But even in the Republic of Korea and Malaysia, whose scores are higher, the market sees room for improvement. In accounting and auditing, China and Indonesia are seen to be the furthest from international standards and practices. In China, while the government’s policy is to bring local accounting standards into line with international standards, there are significant discrepancies at present. Indonesia is much closer to international standards, but still has some differences. The last column of Table 3.1 reflects the market’s rating of the overall corporate governance culture, as manifested by the degree to which institutional and retail investors actively promote good corporate governance. Here again, China, Indonesia, and the Philippines are seen to be the weakest.

Disclosure and transparency from the perspective of shareholders

Given the problems of asymmetric information that are inherent in the financial sector, the generation and dissemination of reliable information on
a timely basis is of vital importance in improving the efficiency of financial markets and in reducing systemic vulnerability. The Organisation for Economic Co-operation (OECD) principles of good governance suggest that firms should disclose all material information (including their financial and operating results; their objectives; their major share ownership and voting rights; their remuneration policy for members of the board and key executives; information about board members; related-party transactions; foreseeable risk factors; issues regarding employees and other stakeholders; and governance structures and policies); that this information be prepared and disclosed in accordance with high standards of accounting and financial and nonfinancial disclosure; and that the results be audited annually by an independent, competent auditor.

Disclosure by listed firms

To what extent do firms actually practice disclosure? To a large extent the degree, quality, and timeliness of information disclosure rests on the enforcement of the legal framework—the company law, the commercial law, the civil code, and the statutory requirements under each of the relevant prudential and supervisory bodies (such as, for instance, the Securities and Exchange Commission (SEC) for SEC-listed companies)—and on prevailing accounting and auditing standards and practices. However, it also depends on the overall corporate-governance culture. Thus in many cases, corporations and banks—at least the larger ones—may be following international best practice even if the prevailing rules and regulations are less stringent.

An analysis by Standard and Poor’s (2005) of a sample of listed financial and non-financial firms in 2005 shows the extent to which key corporate governance aspects are disclosed in the firms’ annual reports (Figure 3.2). Here again, firms in Singapore and Hong Kong (China) score the best on average, although there is quite a large range in the performance of firms in Singapore (largely reflecting the performance of firms that are incorporated outside Singapore), followed by Malaysia, Korea, Thailand, and Indonesia, in that order. The analysis did not cover China or the Philippines.

Information disclosure by top five banks

Given the importance of banks from the perspective of systemic risk, this section looks in more detail at the scope of financial disclosure practiced by the top five banks (selected by size of assets) in each country in the region. Except in China and the Philippines, the scope of disclosure by these banks is relatively broad (Table 3.2), and indeed, the top banks in Singapore rank higher than banks in Germany, Japan, the United Kingdom, or the United States. However, disclosure tends to be more limited within certain categories, notably the details of the maturity structure of liabilities; foreign-exchange exposure; derivatives breakdowns; loans made to related parties (included under “other” items); and risk-weighted assets, contingent liabilities, and capital ratios (tier 1, 2, 3, total and risk-weighted), which are grouped within the “memo” items.

Two caveats also need to be noted. First, in most countries, the largest banks are likely to follow considerably higher standards than the smaller banks.

### TABLE 3.1 Corporate Governance Scores—A Market Perspective

<table>
<thead>
<tr>
<th>Economy</th>
<th>Rules and regulations</th>
<th>Enforcement</th>
<th>Political and regulatory</th>
<th>IGAAP</th>
<th>Corporate governance culture</th>
<th>Economy score</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>5.3</td>
<td>4.2</td>
<td>5.0</td>
<td>7.5</td>
<td>2.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>5.3</td>
<td>2.7</td>
<td>3.8</td>
<td>6.0</td>
<td>2.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7.1</td>
<td>5.0</td>
<td>5.0</td>
<td>9.0</td>
<td>4.6</td>
<td>6.0</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>6.1</td>
<td>5.0</td>
<td>5.0</td>
<td>8.0</td>
<td>5.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>6.8</td>
<td>3.1</td>
<td>5.0</td>
<td>8.5</td>
<td>3.1</td>
<td>5.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>6.1</td>
<td>3.8</td>
<td>5.0</td>
<td>8.5</td>
<td>3.5</td>
<td>5.3</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>6.6</td>
<td>5.8</td>
<td>7.5</td>
<td>9.0</td>
<td>4.6</td>
<td>6.7</td>
</tr>
<tr>
<td>Singapore</td>
<td>7.9</td>
<td>6.5</td>
<td>8.1</td>
<td>9.5</td>
<td>5.8</td>
<td>7.4</td>
</tr>
</tbody>
</table>

Source: Credit Lyonnais Asia Pacific 2005.

Notes: Score ranges from 1 (lowest) to 10 (highest). IGAAP = international generally accepted accounting practices. The assessments are based on a number of parameters under each category, as listed in the source of this table.
Second, this analysis covers only the extent of disclosure, not its quality.

To sum up, the disclosure practices of a sample of listed firms and banks suggest that the timeliness of regular reporting seems to be relatively good across countries in the region. However, the scope and quality of the information being disclosed still needs to be improved, particularly in China, Indonesia, and the Philippines. It is important that firms disclose all relevant and material information, rather than practicing the somewhat selective disclosure that seems to be relatively common. Most countries have put in place rules and regulations on disclosure related to corporate governance. What is needed is to enforce these rules and to cultivate a culture of greater disclosure over time.

**Availability of information from the perspective of creditors**

For banks and other financial institutions, information sharing through credit bureaus or credit registries can significantly expand the amount of information available on borrowers, whether firms or private consumers. Credit information systems can fulfill a number of functions including collecting, analyzing, and...
Credit information systems also make it possible to assess empirically, through the use of credit-scoring tools, which factors are most predictive of default. As a result, creditors can more intelligently assess loan requests from consumers and businesses, and will be more likely to extend credit where it can be productively used. Credit information systems also promote competition among lenders, thereby reducing the cost of credit.

Credit bureau information is especially useful for financial institutions deciding whether to lend to individuals and smaller companies. While lending to large companies requires a detailed analysis of the potential borrower’s financial standing, for smaller loans, payment history is found to be a sufficiently good predictor of the probability of default.

Box 3.1 summarizes some key features of well-functioning credit information systems, and Table 3.3 shows the status of credit reporting and financial information infrastructure in the region.

**Shareholder Rights, Board Responsibilities, and Their Implementation**

Timely and relevant information is necessary, and it is also clearly important that shareholders and creditors have the right to act on the information provided. Box 3.2 outlines the OECD best-practice principles for corporate governance, including those relating to shareholders’ rights.

Reviews of standards and codes that were undertaken for Indonesia, Korea, Malaysia, the Philippines, and Thailand show where countries stand with regard to the OECD principles on the rights of shareholders and the responsibilities of boards (Table 3.4).

Basic shareholder rights are in place in all the crisis-affected economies and in Hong Kong (China) and Singapore. China has recently amended its Company Law, with several amendments relating to a strengthening of shareholder rights (Box 3.3).

However, the rules relating to the effective participation of shareholders, and particularly that of minority shareholders, have room for improvement. For instance, in Thailand, the minimum number of days required for notifying shareholders of meetings is only seven (14 days’ notice are required for an extraordinary shareholders’ meeting). In Malaysia, the Philippines, and Thailand, proxy voting is allowed, but voting by mail is not. The threshold of ownership that gives a shareholder the right to place items on the agenda in a shareholders’ meeting varies considerably among countries, from one third of the company’s issued shares in Thailand to only 1 percent of the company’s shares, owned for six months, in Korea. The ownership threshold for requesting an extraordinary shareholders’ meeting also varies: from 3 percent of a company’s voting rights (in Korea), to

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**Table 3.2 Disclosure by Top Five Banks in Each Jurisdiction (Percent)**

<table>
<thead>
<tr>
<th>Economy</th>
<th>China</th>
<th>Indonesia</th>
<th>Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>0.73</td>
<td>0.92</td>
<td>0.97</td>
<td>0.83</td>
<td>0.79</td>
<td>0.88</td>
<td>0.90</td>
<td>1.00</td>
</tr>
<tr>
<td>Liabilities</td>
<td>0.73</td>
<td>1.00</td>
<td>1.00</td>
<td>0.67</td>
<td>0.83</td>
<td>0.87</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Funding</td>
<td>0.67</td>
<td>0.67</td>
<td>1.00</td>
<td>0.67</td>
<td>0.83</td>
<td>1.00</td>
<td>0.89</td>
<td>1.00</td>
</tr>
<tr>
<td>Memo</td>
<td>0.60</td>
<td>0.71</td>
<td>0.71</td>
<td>0.89</td>
<td>0.44</td>
<td>0.78</td>
<td>0.72</td>
<td>0.78</td>
</tr>
<tr>
<td>Income statement</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Other</td>
<td>0.67</td>
<td>0.71</td>
<td>0.86</td>
<td>0.76</td>
<td>0.61</td>
<td>0.69</td>
<td>0.81</td>
<td>0.89</td>
</tr>
<tr>
<td>Total</td>
<td>0.69</td>
<td>0.81</td>
<td>0.88</td>
<td>0.81</td>
<td>0.68</td>
<td>0.83</td>
<td>0.85</td>
<td>0.92</td>
</tr>
</tbody>
</table>

Source: World Bank staff calculations based on banks’ annual reports.

Note: The table shows the scope of information disclosure by the top five banks in each country regarding: (1) their asset composition—maturity structure breakdown, breakdown of loans by type, breakdown of loans by counterparty, total nonperforming loans (NPLs), asset quality, securities by type and securities by purpose; (2) their liabilities—maturity structure; (3) their funding sources; (4) memo items such as reserves, capital ratios, risk-weighted assets breakdown, or contingent liabilities; (5) details in their income statement—aggregate non-interest income, loan-loss provisions; and (6) details of other items such as foreign-exchange exposure, derivatives breakdown, business segment, nonperforming loans by type (restructured, write-off), days of credit, or non-performing loans past due, movement of provision on impaired assets, and loans made to related parties. The numbers are the average score of the top five banks in each country for each of the six categories, divided by the maximum obtainable score for each category. Thus, a figure of 1.0 indicates that the maximum obtainable was achieved. Note that the table does not incorporate an assessment of the quality and reliability of the information disclosed—simply its scope.
20 percent of the company’s issued shares or at least 25 shareholders holding 10 percent of the company’s issued shares (in Thailand). In most countries, shareholders have the right to make fundamental decisions such as approving the appointment of directors and auditors and approving major corporate transactions. However, cumulative voting for directors is not permitted in Malaysia, and though this principle is permitted in the other countries, it is often negated by companies’ articles of association.

The exercise of good corporate governance also requires efforts to ensure that the market for corporate control functions well. This is an area that needs to be addressed particularly in Indonesia, the Philippines, and Thailand. In Indonesia, transactions resulting in changes in control are rare, as the rules are very cumbersome. In Thailand, too, hostile takeovers are made extremely difficult by company ownership structures.

In the Philippines, takeovers are impeded by anti-takeover devices, which shield management from accountability to all shareholders. Best practice would dictate that anti-takeover devices be adopted only if minority shareholders approve them and consider them to be in the company’s best interest.

One of the principles of good governance is that shareholders of the same class be treated equitably. Adherence to this principle could be strengthened in several countries. In Indonesia, for example, the Company Law does not explicitly require the board to treat all shareholders of the same class equally. In

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**BOX 3.1 Key Elements for Well-Functioning Credit Information Systems**

*Key requirements.* A clear legal and regulatory framework allows credit reporting to function successfully. Governments can promote a supportive environment for credit bureaus by enacting and enforcing laws that ease the sharing of credit information. Relevant laws include bank secrecy regulations, data protection laws, and consumer protection provisions. Two concerns that must be addressed with regard to collection and distribution of personal data are privacy and access. Confidence in secure, protected credit information creates more support for credit-registry systems. Laws regulating credit reporting should allow credit information to be shared while protecting the legal rights of individuals and firms. Undue restrictions on information sharing, for example through unnecessarily severe penalties and sanctions or complicated and expensive procedures, may discourage firms from entering the credit-reporting business. Policymakers may choose between using laws to regulate the industry or cultivating a self-regulating code of conduct. Laws and regulations must protect consumers and ensure that data are not misused, by creating a balance of privacy protection and effective information sharing. The purpose of laws and regulations governing credit reporting is to allow responsible sharing of credit information. Typically time limits are imposed on the inclusion of adverse credit information. In addition, laws should safeguard consumer rights by allowing consumers to obtain their own credit reports and by providing appropriate dispute-resolution mechanisms to correct erroneous information.

*Scope of coverage.* For credit bureaus to assess risk accurately, they must gather information on a timely basis and share both positive and negative information. They should include data from all lenders, including other non-bank financial institutions, retail firms, and non-financial firms that issue credit. Their goal should be to broaden access to credit and reduce financial risk—a goal that requires a complete borrowing profile.

*Ownership.* Credit registries may be established in the private or public sector or operate as a joint venture between the state and member banks, or between member banks and foreign private bureaus. Public and private credit registries are often found to be complements, not substitutes. Public registries are usually established by the central bank and serve the dual purpose of improving a bank’s risk management and strengthening bank supervision. One advantage of public registries is that they can usually set up operations quite rapidly, since they usually rely on regulations established by the central bank that require all supervised financial institutions to submit data. Hence public registries can overcome problems of non-compliance. Private registries, for their part, are able to collect information from a larger number of sources, ranging from financial institutions to entities that sell goods on credit. Private registries can also provide a wider range of services, including investigative reports as well as value-added services such as credit scores and ownership links. Since participation is voluntary however, these registries may, at least initially, not cover all financial institutions. Also, private registries tend to maintain only negative information—since financial institutions may only be willing to share negative information voluntarily, for fear of revealing the identity of their best customers to competing financial institutions. Public registries typically cover positive information. Nonetheless, since private bureaus are better designed to collect and distribute information to lenders, most developed countries have a private credit-reporting system, even though many also have a public registry operating at the central bank.
### TABLE 3.3 Infrastructure for Credit Reporting and Financial Information

<table>
<thead>
<tr>
<th>Elements of financial information infrastructure</th>
<th>China</th>
<th>Indonesia</th>
<th>Rep. of Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public registry</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Private credit bureau</td>
<td>No(^a)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Corporate registry—fixed assets</td>
<td>Yes-E</td>
<td>Yes</td>
<td>Yes-E</td>
<td>Yes-E</td>
<td>Yes-E</td>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Corporate registry—moveable assets</td>
<td>No</td>
<td>Yes-E</td>
<td>Yes-E</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Court records</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes-E</td>
<td>No</td>
<td>Yes-E</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Legal framework</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes-L</td>
<td>Yes</td>
<td>Yes-L</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Scope of information</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Both consumer and firm data</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Both banking and real sector data</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>More than 5 years of data for distribution</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Both positive and negative information</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>


Notes: With regard to corporate registry and court records, “Yes” indicates the existence of such an institution and “Yes-E” indicates that the information concerned is available in electronic format. With regard to legal framework, “Yes” indicates that consumers/firms have rights to inspect their data; “Yes-L” indicates the existence of a credit-reporting law.

a. Private bureau data in China come from a regional credit database managed by a private firm. Note, however, that a consumer-credit-reporting system, initiated by the People’s Bank of China in 2004, was put into use in 2005 in 15 nationwide commercial banks and 8 city commercial banks, and is expected to link all major commercial banks and rural credit corporations by mid-2006.

### BOX 3.2 Summary of OECD Corporate Governance Principles

**Rights of shareholders and key ownership functions.** The corporate governance framework should protect and facilitate the exercise of shareholders’ rights.

**Equitable treatment of shareholders.** The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.

**Disclosure and transparency.** The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including its financial situation, performance, ownership, and governance.

**Responsibilities of the board.** The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board’s accountability to the company and the shareholders.

### TABLE 3.4 Assessments of Shareholder Rights and Board Responsibilities

<table>
<thead>
<tr>
<th>Rights of shareholders</th>
<th>Indonesia</th>
<th>Rep. of Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic shareholder rights</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Rights to participate in fundamental decisions</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Shareholders’ annual general meeting rights</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Disproportionate control disclosure</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Control arrangements allowed to function</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Equitable treatment of shareholders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All shareholders treated equally</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Prohibition of insider trading</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Board/managers disclose interests</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Board responsibilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board should act in good faith, with due diligence and care</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Board should treat all shareholders fairly</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Board should apply high ethical standards and look to the interests of all stakeholders</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Board should fulfill key functions</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Board should be able to exercise objective, independent judgment</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Board should have access to accurate, timely, and relevant information</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Reports on the Observance of Standards and Codes that are undertaken by the World Bank and IMF at the request of member countries. Note that the reviews underlying these reports have taken place over a period of time: Philippines September 2001; Indonesia August 2004; Korea September 2003; Malaysia June 2005; and Thailand June 2005.

Notes: Scores range from 1 to 5; 5 = observed; 4 = largely observed; 3 = partially observed; 2 = materially not observed; and 1 = not observed.

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### BOX 3.3 Selected Amendments to Corporate Governance in China’s Company Law

China’s revised Company Law was approved by the National People’s Congress in October 2005. The law reinforces the fiduciary duties of directors and other corporate insiders and enhances public shareholder rights and access to information. In particular:

- A controlling shareholder, director, or senior manager who takes advantage of his or her affiliation and impairs a company’s interest may be liable for damages.
- Cumulative voting is allowed.
- The revised law introduces a mechanism to “pierce the corporate veil” to protect a creditor’s interests. Henceforth, “if any shareholder of a company causes any losses to the company or any other shareholder as a result of abuse of its shareholder rights, it shall make compensation for such losses.”
- A shareholder may ask the court to set aside board or shareholder resolutions that violate any law or regulation, or the company’s articles of association.
- A shareholders’ meeting may be called by shareholders who, in the case of a joint stock company, have held 10 percent of more of the company’s total shares for 90 consecutive days.
- Shareholders have the right to examine and copy articles of association, minutes of shareholders’ meetings, board resolutions, and financial and accounting reports.
- Employee representatives must make up at least one third of a company’s board of supervisors.

Thailand, the Public Company Act provides that the rights of preferred shareholders may not be modified (for example by converting preferred to ordinary shares) unless this possibility is specified under the company’s articles of agreement. But the holders of other classes of shares that may be negatively affected by a proposed action, or that have a special interest in the matter, are not eligible to vote, even on a modification of their rights.

The prohibition of insider trading and abusive self-dealing is clearly important for the equitable treatment of all shareholders. Any self-interest on the part of the board or management should also be disclosed to other shareholders. These are areas that need attention in several countries, including Indonesia, Korea, and the Philippines. In Indonesia, the problem stems from weak enforcement of insider-trading rules and from legal uncertainty with respect to related-party transactions—with no explicit rule for directors to disclose related-party transactions. In Korea, related-party transactions are widespread, and because they often involve controlling shareholders or affiliated persons, they are not covered by the Commercial Code. Under Korea’s Securities and Exchange Act, which was revised in 2001, a large listed firm is required to get board approval and report to the general shareholders’ meeting a transaction with the largest shareholder or its affiliate. A rule of similar content is included in Korea’s Monopoly Regulation and Fair Trade Act. Korea’s Commercial Code already bars directors facing potential conflicts of interest from voting in a directors’ meeting. However, conflict of interest is narrowly defined and inside directors are often allowed to vote. Korean policymakers may want to consider strengthening rules to impede self-dealing and insider trading—for example, by excluding inside directors from decisions involving potential conflicts of interest. In the Philippines, the law contains requirements for disclosure and shareholders’ approval for the board and management’s related-party transactions, but there is some concern that these requirements may not be consistently adhered to, in an environment of pyramid structures and majority shareholder control with family dominance.

The responsibilities of boards of directors could be strengthened in most of the countries. Boards of directors monitor and provide strategic guidance to the management of a firm and are a key corporate governance mechanism for shareholders. In the past, the controlling shareholders of a firm tended to handpick its executive, inside directors. Since the financial crisis, a high priority has been placed on restructuring corporate boards, including mandating outside directors and various committees (for nomination and remuneration of directors, and for audit) and requiring directors to be more accountable to all shareholders. Under good principles of corporate governance, boards are expected to act in good faith, with due diligence, and in the best interests of the company and the shareholders. Where board decisions may affect different shareholder groups differently, they are required to treat all shareholders fairly. Boards are expected to apply high ethical standards and to fulfill certain key functions including selecting, compensating, monitoring, and replacing key executives; ensuring a formal and transparent board-nomination process; and monitoring and managing potential conflicts of interests of management, board members, and shareholders. The board is expected to be able to exercise objective and independent judgment on the corporation’s affairs and have access to the information necessary to do so on a timely basis.

Countries in the region, especially Indonesia, the Philippines, and Thailand, adhere weakly to one or several of these principles. In the Philippines, company boards are not very effective at selecting, monitoring, or replacing key managers; their role needs to be strengthened. Also, Philippine law does not require that tasks involving potential conflicts of interest (such as remuneration or financial reporting) be given to independent directors. In Thailand, the Public Company Act does not establish specific functions for the board, although the general powers and responsibilities of boards are broad enough to encompass all major decisions that are not subject to shareholders’ approval. In practice, boards in Thailand tend to limit themselves to hiring, discharging, and determining the pay of the chief executive officer or president, rather than all key executives. In Indonesia, the Company Law provides that a limited-liability company must have a two-tier board system composed of a board of directors (BOD) and a board of commissioners (BOC); the BOD is in charge of day-to-day management of the company, and the BOC has the duty of monitoring, overseeing, and advising the BOD. Responsibility for the selection of managers, strategic guidance, and protection of shareholder rights would fall largely to the BOC, as provided by the rules of the Jakarta Stock Exchange.
(except that the BOC does not appoint the members of the board of directors). The Jakarta Stock Exchange rules specifically require listed companies to establish audit committees, but do not mandate the use of committees for directors’ remuneration and nomination.

In Korea, under the Corporate Code, management is not allowed to discriminate among shareholders of the same class, and the board is subject to the duty of care. However, as long as all shareholders are treated equally in a formal sense, the board is entitled to take any action. For example, a firm may forgo paying dividends or undertake a rights offering of a substantial size, as those decisions apparently affect all shareholders equally. It is very difficult to attack such a decision by a board on the grounds of violation of duty of care, and in most cases a board decision would be respected by the courts.

Boards’ ability to exercise objective and independent judgment and their access to timely information in order to fulfill their duties are key issues in almost all the countries studied. In Indonesia, the Company Law does not require the members of the BOC to be independent, although the Jakarta Stock Exchange regulations now require listed companies to fill at least one third of the BOC with independent commissioners. In practice, shareholders have no mechanism to select or nominate independent commissioners; the general shareholders’ meeting normally approves the BOD’s proposal for independent commissioners. Indonesia’s Company Law is also not explicit on the BOC’s access to corporate information; since it empowers the BOC to supervise and advise the BOD, it implies that the BOC can require and access any corporate information needed to fulfill this responsibility. In practice, however, members of boards of commissioners are not aware of their rights and responsibilities. In Korea, the Stock Exchange Act requires a listed company to appoint at least one quarter of its directors from outside the company. The degree of independence of these outside directors was unclear in the past, but this is gradually changing. In the Philippines, legal provisions exist to protect directors’ right to question information provided by company management, but market participants consider that this right is undermined by the appointment of many directors by controlling shareholders. In Thailand, the requirement for an audit committee has significantly improved the independence of directors in listed companies. Thailand’s Securities and Exchange Commission specifies required qualifications for independent directors, but in companies where a controlling shareholder also assumes the role of a director or senior executive, his independence may be doubtful.

Another important aspect in the exercise of corporate governance is the extent to which shareholders can seek redress if their rights are violated. This option remains limited in most countries. In Malaysia, the Company Act provides remedies for aggrieved shareholders, but investors have only a limited ability to take action against directors who have breached their fiduciary duties; there are no specific provisions for derivative suits or class-action suits. In the other countries of the region, derivative suits are allowed—albeit subject to different thresholds of share ownership, ranging from shareholders owning more than 0.01 percent of the company’s shares in Korea to those owning at least 10 percent of the company’s shares in Indonesia. Class-action suits are allowed in Indonesia, but are costly, and have just been introduced in Korea for companies with assets of more than two trillion won. They are also allowed in the Philippines, filed either at the Securities and Exchange Commission or regular courts depending on the violation. In Thailand, the introduction of class-action suits is pending: the Class Action Act now in draft would enable shareholders and investors to sue directors, managers, auditors, and relevant parties for breach of their duties and with much less concern about the costs. However, this law may take some time to be enacted.

Creditors’ Rights and Their Implementation

From the perspective of creditors, rights to enforce both secured and unsecured claims through efficient mechanisms outside of insolvency, as well as through a sound insolvency system, are key. It is also important that the mechanisms other than insolvency, and the insolvency regime, be designed to work in harmony with each other. Box 3.4 summarizes the principles and guidelines for effective insolvency and creditor rights based on the World Bank’s Principles and Guidelines for Effective Insolvency and Creditor Rights Systems.
Security interest legislation

A sound framework for allowing secured lending can encourage the provision of credit and assist in the development of domestic financial markets. The legal framework should provide for the creation, recognition, and enforcement of security interests in a broad category of assets—movable and immovable (real), tangible and intangible. It is also important that lenders be able to take security interests in future property, and on a global basis. And where a credit provides for future lending or optional drawing (such as revolving facilities), the obligations should be capable of being secured at the outset of the transaction. For tangible assets, the law should also permit both possessory and non-possessory security interests. In the case of security over chattels, requiring the delivery of possession can be a serious

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**BOX 3.4 Principles and Guidelines for Effective Insolvency and Creditor Rights**

*Security interest legislation* should provide for the creation, recognition, and enforcement of security interests in property, arising by agreement or operation of law. It should provide for:

- The creation, recognition, and enforcement of security interests in all types of assets—movable and immovable (real), tangible and intangible, including inventories, receivables, proceeds, and future property, and on a global basis, including both possessory and non-possessory interests.
- Any or all of a debtor’s obligation to a credit, present or future, and to all types of persons.
- Methods of notice that will sufficiently publicize the existence of security interests to creditors, purchasers, and the public, at the lowest possible cost.
- Clear rules of priority on competing claims or interests in the same assets, eliminating or reducing priorities over security interests as much as possible.

*Recording and registration of secured rights.* There should be an efficient and cost-effective means of publicizing security interests in movable and immovable assets, with registration being the principal and strongly preferred method. Access to the registry should be inexpensive and open to all for both recording and search.

*Enforcement of secured rights.* Enforcement systems should provide efficient, inexpensive, transparent, and predictable methods for enforcing a security interest in property. Enforcement procedures should provide for prompt realization of the rights obtained in secured assets, ensuring the maximum possible recovery of asset values based on market values. Both non-judicial and judicial enforcement methods should be considered.

*Corporate insolvency legislation* should:

- Maximize the value of a firm’s assets by providing the option to reorganize.
- Strike a careful balance between liquidation and reorganization.
- Provide equitable treatment of similarly situated creditors, including similarly situated foreign and domestic creditors.
- Provide for timely efficient and impartial resolution of insolvencies.
- Prevent premature dismemberment of a debtor’s assets by individual creditors seeking quick judgments.
- Provide a transparent procedure that contains incentives for gathering and dispensing information.
- Recognize existing creditor rights and respect the priority of claims with a predictable and established process.
- Establish a framework for cross-border insolvencies, with recognition of foreign proceedings.
- Provide for the implementation of the insolvency system.
- Specify the role of courts. Bankruptcy cases should be overseen and disposed of by an independent court or competent authority and assigned, where practical, to judges with specialized bankruptcy expertise. The law should provide for a court or other tribunal to have a general, non-intrusive supervisory role in the rehabilitation process. The court/tribunal or regulatory authority should be obliged to accept the decision reached by the creditors that a plan be approved or that a debtor entity be liquidated.
- Judicial decision making and enforcement. Judicial decision making should encourage consensual resolution among parties where possible, and otherwise undertake timely adjudication of issues with a view to reinforcing predictability in the system through consistent application of the law. The court must have clear authority and effective methods of enforcing its judgments.
impediment, since such chattels are typically held by the debtor as equipment for use in his business or for sale as inventory. Giving possession to the creditor would prevent the debtor from using or selling the chattels and generating the income needed to service the debt.

It is also important to publicize the existence of the security interests, but to do so efficiently. The requirement to specifically identify each item of collateral, still found in a number of legal systems, is cumbersome even when applied to existing assets, and makes it very difficult to provide security over future property, especially in the case of a global security. It should suffice that the description of collateral is such that the asset over which security is asserted can be identified as falling within the scope of the security agreement.

Finally, it is important that the security system also set the rules of priority on competing claims or interests in the same assets and minimize the number of priorities that come ahead of secured interests in collateral.

Therefore, in assessing a country’s legislation on secured lending, the extent to which these elements are present should be considered, along with whether commercial secured lending is possible, whether title finance is possible, the nature of legal provisions for home mortgages, the provisions for the transfer of secured claims, and the role of statutory priority claims (such as those of government or employee creditors) relative to secured claims.

Creation of security interests

In each jurisdiction covered, the legal system provides for real property to be offered and taken as collateral. However, there are considerable differences among these systems (Table 3.5), notably in the ease and efficiency with which mortgages, charges, or liens may be created; the requirements for registration; whether the mortgagor retains title to the collateral while the extension of credit that it purports to secure remains outstanding; and how secured creditors may enforce their collateral rights. Differences also exist, in some cases, in the treatment of collateral arising from varying statutory provisions for real property ownership by domestic and foreign interests.

The treatment of secured rights over movable property is still more varied across the region.

<table>
<thead>
<tr>
<th>Economy</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Land may not be mortgaged but mortgages over land use are permitted. Registration is necessary to protect secured creditor rights. The enforcement of a mortgage can require litigation in cases where the mortgagee and the mortgagor cannot reach agreement as to how the mortgagee claim may be satisfied. Transactions involving mortgages to be held by foreign entities are subject to prior approval and registration with the State Administration of Foreign Exchange.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Security interests may be taken in land but often prove difficult for creditors to enforce. Enforcement is clearly inefficient; it can take years. Auction fees and taxes are high and, in practice, recourse to the courts is almost always necessary. Official registries are maintained manually, which causes difficulties for potential lenders wishing to search for title or prior claims.</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>Most real-estate rights must be registered. However there are important exceptions from this rule (for example, property acquired through inheritance or pursuant to a judgment auction).</td>
</tr>
<tr>
<td>Philippines</td>
<td>Real property may be mortgaged and both registration and notarization are statutory requirements necessary for creditor protection. Ownership is retained by the mortgagor while a charge is outstanding. Delays in foreclosure can occur because the secured party must use the courts in the absence of any contractual agreement for extra-judicial foreclosure.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Real property may be mortgaged and registration is necessary to protect the secured creditors’ rights, but foreclosure cannot occur unless a loan interest or charges have been outstanding for five years. This provision contributes to an inefficient enforcement process that can last for decades.</td>
</tr>
<tr>
<td>Malaysia, Hong Kong (China), and Singapore</td>
<td>All allow for a charge to be taken over land, which must be registered. Hong Kong (China) and Singapore also provide for mortgages to be taken over land, but since 1984 the mortgage may be created only by a legal charge in Hong Kong (China). The Malaysian courts will generally recognize a charge that is executed but not yet registered. All three jurisdictions call for the appointment of a receiver to protect the creditor’s interest, and in all three jurisdictions there is a high level of predictability and efficiency as to the creditor’s ability to enforce its rights.</td>
</tr>
</tbody>
</table>

Source: Arner and others 2006.
None of the jurisdictions has adopted a regime like that specified by the U.S. Uniform Commercial Code (UCC) Article 9, but the English-origin systems of Hong Kong (China), Malaysia, and Singapore work relatively well for this purpose. Delays and inefficiencies in the enforcement of secured rights are common in several jurisdictions. Limits to the movable assets that may be used as collateral may be problematic or constraining in most jurisdictions; they include bars to taking security interests in chattel paper or accounts receivable, and more broadly a lack of provisions for charges over future property or the use of security to collateralize future loans.

Registration of security interests

It is important that a debtor’s granting of security interests be publicized, to allow third parties intending to acquire an interest in the asset to learn of a prior security in the asset, and to prevent the debtor from raising further credit on the strength of his apparent ownership of the asset. And there is general agreement that transferring possession of the assets to the creditor as a means of publicity is inferior to

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**TABLE 3.6 Treatment of Movable Property**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Mortgages may be taken over existing movable property, but not over future property. Secured creditors must register their claims to protect all such non-possessory rights. They may also protect themselves through possession in the form of a pledge. As with real property, foreign entities seeking security over movable property must comply with the approval and registration procedures of the State Administration of Foreign Exchange. The treatment of security interests in intangible assets such as bank accounts or receivables is less straightforward. Regulations have been issued allowing mortgages over such assets, but the effectiveness of these new forms of collateral is largely untested. Enforcement of unsecured claims can sometimes run into resistance at the local level; instances have been reported in which banks and their clients have colluded to hide assets from the court.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Under the Fiduciary Security Law, a debtor may transfer title to goods to a creditor and retain possession of the goods in the absence of any default. Pledges are also permitted. A fiduciary assignment may be taken for security purposes over intangible property and receivables. As with real property, enforcement over movable property requires recourse to courts and both auction fees and taxes are punitive. In essence, secured creditors foreclosing on collateral are forced to resort to substantially the same court proceedings as unsecured creditors.</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>Rights in personal property may only be protected by possession. Korean law does not recognize purchase money security or floating liens.</td>
</tr>
<tr>
<td>Philippines</td>
<td>Chattel mortgages and pledges are permitted over movable property. Chattel mortgages must be recorded. Philippine law does not recognize chattel mortgages over future property; but courts have created exceptions for interests in inventories of raw materials, goods in process, and finished goods. Chattel mortgages may not secure future obligations.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Only certain forms of movable property may be mortgaged, including large ships and boats, floating houses, beasts of burden, and classes of machinery. Creditors holding rights of retention are also recognized as secured creditors. Other types of property may be pledged. Enforcement of secured rights requires either a court judgment or a public auction and is slow and costly. Fixed and floating charges are not permitted at present but would be allowed under the secured transactions law that is now in draft. The enforcement of unsecured debt in Thailand can extend for many years. The laws in all three jurisdictions provide for a variety of securities over movable property (both tangible and intangible) including charges, liens, and pledges. Retention of title is also permitted. Security may be taken over future property. Fixed charges may be taken over tangible assets and floating charges over classes of variable assets such as inventory and/or book debts. Less clear is whether secured creditors may take fixed charges over book debts. These English-origin systems require the registration of many types of charges, including charges over book debts and floating charges over the general undertaking of a company, but statutory rules are less clear and comprehensive than the U.S. Uniform Commercial Code Article 9. Usual practice in these three jurisdictions is for a debenture to provide a secured financial creditor, with the contractual remedies upon default allowing the appointment of a receiver or special manager. All three jurisdictions have efficient debt-collection procedures for non-secured creditors.</td>
</tr>
</tbody>
</table>

Source: Arner and others 2006.
registration or filing, since in most transactions the debtor is unable to part with the collateral. Nevertheless, in some jurisdictions in the region, possession is a frequently used financing mechanism.

Registration also plays a central role in the ordering of priorities. In some jurisdictions the registry (which is usually government-run) merely serves as a filing office. However, in others, including China, Indonesia, and Thailand, the registration process is much more complex because the government checks the information and in effect guarantees the legality of the underlying transaction. In such jurisdictions, the parties must also submit the originals or copies of their security agreement. This type of system is much slower and more expensive than a pure filing system.

**Enforcement of secured rights**

Efficient, inexpensive, transparent, and predictable methods are needed for enforcing a security interest in property. Both judicial and non-judicial methods of enforcement should be considered. Enforceability is easiest when the law allows parties to agree on their own default remedies, bypassing courts, but provides adequate safeguards to the debtor where court involvement would be required. Out-of-court mechanisms may include self-help remedies where these can be exercised consensually without violating the legal rights of others. Where self-help remedies are unavailable, enforcement procedures should enable the parties to obtain enforcement on summary, accelerated proceedings for the recovery and sale of collateral, either through the judicial process or by way of public auctions.

An inefficient system of security enforcement often leads to an ineffective corporate rescue mechanism because in those jurisdictions where it is difficult for creditors to enforce their security interests, it is difficult to pressure debtors to come to the table to negotiate with creditors and seek a collective remedy. And ultimately the secured creditor might be forced to exercise his rights in a liquidation proceeding.

Unfortunately, the enforcement mechanisms in use throughout much of the region take too long, are too expensive, and are commercially inefficient. Some of the strongest criticisms pertain to the enforcement of claims against real estate. In such cases, a need for judicial assistance is the norm and the process is slow. A further problem is that even where a creditor’s actions are uncontested, judicial assistance is still often required. In general, it is best to minimize the need for judicial assistance, and where the need exists, it is important to expedite the process.

Table 3.7 gives a broad assessment of where countries in the region stand regarding the key elements needed for unsecured and secured lending.

### Insolvency systems

Experience suggests that, to be most effective, insolvency systems should be integrated with a country’s broader legal and commercial systems and should be designed with regard to eight principles: (1) max-

<table>
<thead>
<tr>
<th>Economy</th>
<th>Unsecured rights</th>
<th>Secured rights</th>
<th>Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Security-interest legislation</td>
<td>Registration and disclosure of secured rights</td>
<td>Enforcement of secured rights</td>
</tr>
<tr>
<td>China</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Indonesia</td>
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<tr>
<td>Rep. of Korea</td>
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<td>Malaysia</td>
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<td>Philippines</td>
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<tr>
<td>Thailand</td>
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<td>1</td>
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<tr>
<td>Hong Kong (China)</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Singapore</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

*Source:* Arner and others 2006.

*Notes:* Score 1 (lowest) to 5 (highest). The table highlights the ease and cost of creating reliable security interests, systems for such interests to be disclosed, the costs and risks associated with enforcing charges, the relationship of security and collateral with bankruptcy and receivership practices, and the operation of creditor protection and stays to enforcement.
imize the value of a firm’s assets, including by providing an option to reorganize; (2) strike a careful balance between liquidation and reorganization; (3) provide for equitable treatment for similarly situated creditors; (4) prevent the premature dismemberment of a debtor’s assets by individual creditors seeking quick judgments; (5) provide for timely, efficient, and impartial resolution of insolvencies; (6) provide a transparent procedure that contains incentives for gathering and dispensing information; (7) reorganize existing creditor rights and respect the priority of claims with a predictable and established process; and (8) establish a framework for cross-border insolvencies, with recognition of foreign proceedings.

Table 3.8 provides a broad assessment of where East Asian countries stand with respect to the key elements of insolvency regimes.

Before the financial crisis, only Singapore had an insolvency regime adequate to deal with a large number of corporate failures. Other countries were hampered by antiquated laws and procedures, many of which dated from colonial times; all of them used liquidation-based procedures. For the most part, the insolvency laws were underused for liquidation and seldom used for corporate reorganization. In Indonesia and Thailand, insolvency laws provided for both liquidation and suspension of payments procedures, but were rarely used.

In the aftermath of the financial crisis, countries began to reform or replace archaic liquidation regimes and to supplement them with modern corporate-rescue procedures, including both formal court-based regimes and out-of-court and administrative procedures. Indonesia, Korea, Malaysia, the Philippines, and Thailand have reformed their insolvency laws. The other economies—China, Singapore, and Hong Kong (China)—have had ongoing law reforms, with those in Hong Kong (China) and China dating from before 1997.

Indonesia amended its 1998 Bankruptcy Ordinance by a government regulation in lieu of a law. Indonesia also established a commercial court after the crisis to hear bankruptcy cases, although there have been perceptions of corruption and concerns about inconsistent application of the Bankruptcy Act in the past. Further amendments to the Indonesian law were enacted in 2004.

Among the crisis-affected countries, Korea has made the most significant changes to its formal insolvency law. Many of the changes were intended to expedite the reorganization procedures. Creditors’ committees are now included in composition proceedings and management committees are included in reorganizations, while the time limit for reorganizations has been halved from 20 to 10 years. Further amendments were made in 2000 and 2001, including formalizing an out-of-court Workout Accord in the reorganization legislation to enable creditors to file proceedings to bind foreign creditors. A recent major change is the Debtors’ Rehabilitation and Bankruptcy Act, which came into effect in April 2006. This new

### TABLE 3.8 Assessment of Insolvency Regimes

<table>
<thead>
<tr>
<th>Economy</th>
<th>Legal framework for corporate insolvency</th>
<th>Corporate insolvency implementation</th>
<th>Judicial decision making and enforcement</th>
<th>Effective insolvency practitioners</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1</td>
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<tr>
<td>Indonesia</td>
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<td>Rep. of Korea</td>
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<td>Malaysia</td>
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<td>Philippines</td>
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<td>Hong Kong (China)</td>
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<tr>
<td>Singapore</td>
<td>4</td>
<td>5</td>
<td>5</td>
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</tbody>
</table>

Source: Arner and others 2006.

Notes: Score 1 (lowest) to 5 (highest). The appraisals acknowledge extra-legal regulatory guidance for collaborative multi-creditor practice, for example, in Hong Kong (China), Indonesia, Malaysia, and Thailand. In these jurisdictions, regulators have attempted to instill informal corporate-reorganization practices similar to the well-known “London Rules,” in some cases coming into conflict with the courts. In both Hong Kong (China) and Singapore, systems and practice are well established and generally sophisticated, but legislative reform has tended to lag behind both market practice and the willingness of the courts to intervene creatively in cases of corporate distress.
legislation consolidates Korea’s three different insolvency acts for the first time.

In the Philippines, the pre-1997 insolvency law dated from 1909; it included a rarely used liquidation procedure and a suspension-of-payments process for corporate rescue that was available only to solvent companies experiencing temporary cash-flow problems. Any proposal for debt rearrangement required the full payment of debts and so was rarely used. Amendments to the law were made in July 2000. Among the most significant changes was that the jurisdiction for rehabilitation and suspension of payment cases was transferred to the courts. Other reforms are under discussion, notably a Corporate Recovery and Liquidation Act intended to further improve the rehabilitation and liquidation regimes. However, the congressional passage of these bills has been slow.

In Thailand, a new chapter on business organization was added to the Bankruptcy Act in 1998 to facilitate corporate rescues. One of the reforms provided for the appointment of a bankruptcy planer to manage the affairs of the debtor company and prepare a plan of reorganization. Another important reform was the establishment of the bankruptcy court in 1999.

The insolvency laws in Malaysia, Hong Kong (China), and Singapore share a basic structure of detailed liquidation procedures and an abbreviated scheme-of-arrangement procedure for use in corporate rescues. The liquidation procedure in these laws is the most efficient in the region (although in need of modernization), but the scheme-of-arrangement procedure is cumbersome and expensive. The procedures in Hong Kong (China) and Malaysia do not provide for an automatic stay in the absence of a winding-up order; Singapore operates a stay only on unsecured creditors. None of the jurisdictions in the region has a mechanism to force uncooperative secured creditors to the bargaining table.

Interaction between creditor rights and insolvency

To what extent should the pre-existing rights of secured creditors be adversely affected by insolvency? Secured lending produces important economic and social benefits—such as increasing the amount of credit extended and reducing the need for creditors to initiate a process of insolvency to get paid. There are other reasons, too, why secured creditors should retain their level of priority in insolvency proceedings. First, granting concessions to other groups not merely hurts the secured creditors’ interests but is likely to kill the secured-lending system. Second, a problem with allowing the claims of other groups (such as workers or tort claimants) to supersede the rights of secured creditors is that there is no way for a bank to quantify these possible claims at the time that it contemplates lending to the company.

Thus, ensuring an effective framework for securing transactions is important. Some general principles are that where, before insolvency or in contemplation of insolvency, a company charges or mortgages an asset to a creditor in exchange for the credit providing value to the company: (1) such a charge or mortgage should not be voided by a subsequent insolvency proceeding; (2) secured creditors should be permitted to convert an unsecured debt into a secured debt as long as such transactions are entered into a long time before an insolvency commences; (3) fraudulent or commercially unfair transactions that have a security component should be avoided; (4) post-petition grants of security should be permitted; (5) pre-petition interests should continue in post-petition proceeds; and (6) priorities in insolvency should be avoided.

Rather than inserting priorities into insolvency legislation that adversely affect the rights of secured creditors, countries should enact non-insolvency remedies that would preserve the economic gains from secured transactions, yet also enable these other groups to obtain payment of their claims. In general, the global trend in insolvency laws is to abolish statutory priorities in insolvency; for example, the government should not have priority in insolvency for tax claims. The one area that receives general support for retaining statutory priorities in insolvencies is that involving the claims of employees and workers.

All this said, the benefits of secured lending do not mean that the insolvency or reorganization law should always promote a policy of non-intervention. Clearly, if insolvency or reorganization laws pose unreasonable threats to lenders, lenders will most likely curtail lending or raise interest rates, or both. Thus although the law should generally respect the pre-existing priority rights of secured creditors, from the standpoint of insolvency the aim must be to:
(1) define those circumstances when the collective or public interest justifies allowing insolvency to interfere with the rights of secured creditors; (2) define the types of interference that should be permitted; and (3) propose mechanisms to protect the interests of secured creditors whose rights have been adversely affected by such interference. Creating clear, narrowly drawn rules as to when the insolvency law will interfere with the rights of secured lenders is unlikely to pose an unreasonable threat to lenders.

Overall, East Asian countries would benefit from enacting insolvency laws that respect the pre-existing rights of secured creditors. However, in deciding to what extent exceptions to the rule should be permitted and how best to structure the balance between secured transactions and insolvency, governments must first determine which approach is most appropriate for adoption in their jurisdiction.

Accounting Standards and Practices

The quality of financial information available to shareholders and creditors, and to stakeholders more broadly, depends on both the quality of financial reporting (accounting) standards and the strength of enforcement mechanisms.

Standards

East Asian countries are at different stages of convergence toward international accounting and auditing standards. In Korea, for example, although the law does not require compliance with international standards, the Korean Financial Accounting Standards (KFAS) are generally consistent with the International Accounting Standards (IAS). The most significant difference is that the KFAS do not require consolidated financial statements as the primary financial statement. Additionally, special-purpose entities are often not consolidated. The KFAS do not allow revaluation of fixed assets, while the International Financial Reporting Standards (IFRS) refer to the fair-value concept, according to which the financial statements should periodically be adjusted to the fair value of assets.

The Philippines has adopted the International Accounting Standards and International Financial Reporting Standards without material changes and has also adopted transition provisions for each IAS and IFRS.

In Indonesia, national financial reporting standards (PSAK) are converging toward the International Financial Reporting Standards, with full adoption planned in 2008, but at present there are some significant differences. The PSAK have not yet adopted the concepts of IFRS32 and 39, particularly in the measurement and recognition concepts of financial statement instruments such as asset, liability, and equity. Efforts are underway to adopt IAS32 and 39 with regard to fixed assets; while the PSAK refer to the historical cost concept, they do permit the recognition of asset revaluation with the government’s approval.

China announced recently that the Chinese Accounting Standards (CAS) will converge with international standards in 2007. The CAS currently comprise one basic and 16 specific standards, most of which were issued between 1996 and 2001. The process of convergence will involve integrating the IFRS principles into the CAS and will result in the amendment of all existing standards and the issuance of an additional 22 specific standards. While the revised CAS will not reflect a literal translation of the IFRS, their scope will include all IFRS principles.

As countries move toward convergence, full disclosure of the existing differences is important.

Practices

Enforcing existing financial standards is also important. In most countries in the region, compliance with and enforcement of standards pose more of a challenge than the adoption of new standards.

There are three main links in the enforcement chain of financial reporting standards: those who prepare financial statements; the auditors of financial statements; and the regulators. The external audit provides shareholders, regulators, and other stakeholders with a greater degree of assurance that the financial statements of a company are a true and fair representation of the company’s financial position. Independent auditors must earn the confidence of the investing public by adhering to high standards of professional conduct that provide assurances as to the integrity and objectivity of their services. Without competent, independent audit firms to support the application of accounting standards, there is no assurance that
those standards will be consistently and correctly applied.

To ensure high-quality financial reporting, managers of firms need the incentive to take the steps required to comply with the applicable accounting standards in preparing financial statements; auditors need to be able and willing to fulfill their professional obligations; and regulators need to have the legal authority and capacity to monitor financial reporting and auditing practices and enforce applicable accounting and auditing standards.

Strong shareholder rights and practices that provide the appropriate incentives for company managers to comply with accounting standards can provide an impetus to a country’s adoption of good accounting standards and practices. A recent empirical study, based on data from 31 countries, found that high accounting standards and their enforcement in high-quality auditing are more likely to exist in countries with strong legal and institutional arrangements for investor protection, and that in such countries, better accounting and auditing practices are positively associated with financial market development (Francis, Khurana, and Pereira 2002).

Summary

Among the crisis-affected countries, Korea and Malaysia, followed by Thailand, have moved the furthest in reforming their laws and regulations and practices. Indonesia and the Philippines still have considerable scope to strengthen their corporate governance practices. China has recently begun to strengthen its corporate governance.

It is important to continue to raise the awareness of good corporate governance principles and practices among companies, directors, shareholders, and other interested parties in the region.

Broadly, the key challenges with respect to corporate governance lie in ensuring the effective exercise of minority shareholder rights, in improving the quality of financial reporting and disclosure, and in strengthening the rule of law. In many, if not most, cases, the legal and regulatory requirements on information disclosure, shareholder and creditor rights, and accounting and auditing standards, are in place. But implementation and enforcement are often weak, because regulators lack sufficient independence, skills, or resources.
Fostering an Efficient and Sound Banking Sector

Against the backdrop of the developments that have taken place in banking in the region since the financial crisis, this chapter addresses several questions:

- To what extent have banks resumed their role in intermediation?
- What is the appropriate policy environment to ensure the efficient provision of a wider range of services to a broader set of borrowers?
- In light of the new challenges that arise in meeting a broader set of demands and providing new services—and in the context of the changing banking landscape globally—what key areas of banking regulation and supervision do countries need to strengthen?
- Most countries in the region have announced their intention to adopt the Basel II Capital Adequacy Framework (Appendix 3). What is needed to ensure the effective implementation of Basel II in the region?

Developments in East Asian Banking Since the Financial Crisis

This section first reviews changes in the structure, then developments in the efficiency, reach, and soundness of the banking sector.

Structure

Significant structural changes have taken place in the banking sectors of the crisis-affected countries, in response to policymakers’ efforts to address issues of capitalization, governance, risk management, and operational inefficiencies in the aftermath of the crisis. These efforts have included closures and consolidation of banks, often entailing initial nationalization followed by re-privatization.

Consolidation has also taken place in the banking sectors of Hong Kong (China) and Singapore, which were not directly affected by the crisis. Here, as in other advanced industrialized economies, the trend has been driven by competitive pressures arising from deregulation (domestic and foreign) and technological advances.

Banking remains the dominant financial segment in the East Asian countries, with banking sector assets accounting for almost 60 percent of GDP on average. Thus the performance and issues pertaining to the banking sector continue to be of paramount importance to the overall financial systems in the region. With an appropriate regulatory and policy environment, East Asian banks could become more efficient and serve a wider set of needs, while strengthening their soundness.
In all jurisdictions in the region except China, the number of banks has declined significantly, as the result of consolidation (Table 4.1). In most, the extent of state ownership has also declined, while foreign ownership and participation have increased. The pattern varies quite widely across countries, however, and state ownership remains relatively high in Indonesia and Thailand as well as China.

In Indonesia, the number of commercial banks declined from 238 in 1997 to 134 at the end of 2004 (72 private national banks, 5 state owned banks, 31 foreign and joint venture banks, and 26 regional development banks). The privatization of the Indonesian Bank Restructuring Agency returned more than 20 percent of the banking sector’s assets to the private sector. State ownership of banks has declined from its 1997–9 level, but the state retains a large share at 44 percent. If this is combined with the 6 percent share of regional development banks—the fastest-growing component of the banking sector—more than half of the assets of banks in Indonesia are under state ownership. This proportion is higher than before the crisis. State ownership in the country’s top ten banks amounted to 51 percent in 2004. Foreign ownership however, is higher than before the crisis, having risen from about 9 percent of total banking sector assets in 1997 to 31 percent in 2004.

In the Republic of Korea’s first round of consolidation, five banks with capital-adequacy ratios below the 8 percent guideline recommended by the Bank for International Settlements were taken over by healthy banks. Seven banks merged to form three successor banks in 1999, and another two merged to form one successor bank in 2002. However, most of the banks that received public funds and were assessed as viable in the initial stage of restructuring were unable to turn themselves around. The second round of consolidation, dating from the beginning of 2001, has focused on reinforcing the competitiveness of domestic banks. To that end, it has emphasized three approaches: (1) positioning troubled banks under government-led financial holding companies; (2) merging provincial banks with national banks; and (3) promoting consolidation among sound banks. The number of commercial banks has been halved, from 16 in 1997 to 8 at the end of 2004. Korea’s re-
privatization efforts have resulted in a much larger share of both private ownership and foreign ownership than before the crisis. Thus in the top ten banks, private ownership increased from 62 percent during 1997–99 to 94 percent at end-2004. Average foreign ownership—which was quite low at 12 percent before the crisis—also increased, to reach 21 percent in 2004.

Malaysia’s first stage of consolidation reduced the number of banking entities from 55 (comprising commercial banks, finance companies, and merchant banks) to ten groups comprising 31 entities. In the second phase of consolidation, mergers have been taking place between banks and their finance company subsidiaries and among the country’s ten remaining banking groups. As a result, the number of commercial banks declined from 36 in 1997 to 25 at end-2004. Changes in ownership have also occurred: between 1997–99 and 2004, average state ownership in the top ten banks declined from 11 percent to 3.5 percent, while average foreign ownership increased from 16 percent to 26 percent.

The Philippines, too, has seen consolidation in its banking sector, with the number of commercial banks falling from 51 in 1997 to 24 in 2004. Including universal banks—that is, large banks that do both commercial and investment banking—commercial banks number 44, down from 52. The bulk of the banking system is privately owned but foreign ownership remains very small (averaging 9 percent in the top ten banks).

In Thailand, the greatest consolidation activity has taken place among smaller finance companies, reflecting the closure of 56 defunct finance companies. As a result of mergers among banks, there are now 12 commercial banks, down from 16 in 1997. Thailand’s banking system is the only one where state ownership in the top ten banks—averaging 29 percent at end-2004—is sizably higher than immediately after the crisis. While average foreign ownership in the top ten banks has increased, it remains relatively limited, at below 12 percent at end-2004.

Structural changes have also taken place in countries not directly affected by the financial crisis. In China the number of commercial banks has increased. Average state ownership in China’s top ten banks has declined somewhat, falling from 96 percent in 1997–99 to just less than 90 percent at end-2004, while the average foreign ownership rose from 0.02 percent to 3 percent during the same period. Further changes took place during 2005, when the government recapitalized three of the four state-owned banks to the tune of US$75 billion and transferred their nonperforming loans to asset management companies, in preparation for public offerings. In fact, the China Construction Bank has recently completed a high-profile public offering on the Hong Kong Stock Exchange. The Industrial and Commercial Bank of China and the Bank of China, which have received approval for their selection of international strategic investors, are preparing for initial public offerings in 2006. The total equity share acquired by foreign institutions amounts to 20 percent in the Bank of China, 14 percent in the China Construction Bank, and 10 percent in the Industrial and Commercial Bank of China.

Most countries in the region have eased their restrictions to allow banks to conduct business in areas such as securities and insurance. Banks are responding, to varying degrees, by offering fee-based services in new areas, and some are beginning to form strategic alliances with other financial institutions and to outsource their non-core operational functions with a view to achieving greater operational efficiency. For example, four foreign banks have set up regional processing centers in Malaysia.

Efficiency and health

Measured by standard indicators such as the ratio of operating costs to assets, banks in the region have increased their efficiency since the period immediately after the crisis. Indeed, countries in the region now compare favorably to countries in other regions in terms of such indicators (Figure 4.1).

Indicators of bank soundness also show a significant improvement from the trough reached immediately after the crisis (Figure 4.2).

In Indonesia, where the nonperforming loan (NPL) ratio of banks peaked at 48 percent in 1998, the recovery in the asset quality of commercial banks has been quite impressive. As of end-2005, their NPL ratio stood at 7.6 percent. As in several of the other crisis-affected countries, much of the initial decline in the ratio reflected the transfer of assets to asset-management companies—in this case the Indonesian Bank Restructuring Agency, in exchange for government recap bonds. From 2001 onward, however, the NPL ratio was improved through a combination of write-offs, debt restructuring, and recoveries. Most recently, the improvement in the ratio has reflected
FIGURE 4.1 Indicators of Banking Sector Efficiency

- Operating costs to total assets
- Operating costs to total assets, 2004

Source: Bankscope.

FIGURE 4.2 Indicators of Banking System Soundness

- NPLs of the banking system
- Profitability of the banking system
- Capital adequacy ratios of the banking system

Sources: Country sources.
loan growth, particularly to consumers and small and medium-size enterprises. Despite these improvements, however, the level of special-mention loans and restructured loans in the Indonesian system remains relatively high.

The profitability of Indonesia’s banks, as measured by the rate of return on assets, has also improved since the crisis. The average rate of return on assets is estimated at 2.6 percent at end-2005—up from negative 18 percent in 1998. Much of this improvement in profitability occurred during 2002–04; it reflected both a widening of net interest margins and an increase in non-interest income from bond sales and mark-to-market gains. There is an indication that the interest margins are now beginning to narrow, because increased competition among banks is spurring them to raise their deposit rates while interest rates on lending have generally lagged behind. The capital base of Indonesian banks remains strong, with the average capital-adequacy ratios at 19.3 percent at end-2005. This figure reflects the retention of strong earnings during 2002–04, but also the still-substantial holdings of government zero-weighted recap bonds relative to the loan base.

In Korea, the nonperforming loan ratio of banks is now the lowest in the crisis-affected countries, standing at 1.2 percent at end-2005. Although a downward trend in the ratio was interrupted in 2003—as a result of high credit-card delinquencies following Korea’s very rapid expansion of credit-card lending in 2001–02—banks have now largely recovered. Initially after the 1997 crisis, banks in Korea transferred a sizable proportion of their nonperforming loans to the centralized asset management company, KAMCO, at fairly large discounts. In more recent years, they have sought to sell their NPLs to specialist asset-management companies, notably from the United States. The profitability of banks, while slightly higher than immediately after the crisis, remains relatively weak. However, the reported capital position of banks is relatively strong, with an average capital-adequacy ratio of more than 18 percent at end-2005.

In Thailand, the NPL ratio peaked at 45 percent in 1998 and has since come down significantly, to 8.3 percent in 2005, entering the single-digit range for the first time since before the crisis. The NPL ratio of private banks is now sizably higher than that of state banks, which were the main beneficiaries of government assistance and the Thailand Asset Management Company. Though some restructured loans are still regressing to nonperforming status, reflecting limitations in debt reduction during the original restructuring process, the rate of regression has slowed significantly since 2000, helped by the economic recovery. Restructured loans and impaired loans still account for a sizable part of Thai banks’ total loans (about one quarter at end-2004), leaving the loan portfolio significantly vulnerable to potential adverse economic conditions. However, the banking sector has become significantly more profitable since 2003, due to the strong growth that has occurred in lending, in response to improving conditions in the economy overall and wider interest
margins. Lending to corporate bodies remains weak, reflecting muted loan demand but also the banks’ aversion to risk; rather as in Korea and Malaysia, banks in Thailand are turning more to households than to firms for new lending opportunities. Their improved profitability has enabled banks to strengthen their capital base and the average capital-adequacy ratio at end-2005 stood at more than 13 percent.

Elsewhere in the region, the health of the banking sector has also improved over the past few years. In China, the reported NPLs of commercial banks had fallen to 8.6 percent of total loans at end-2005 from 13.2 percent at end-2004, mainly as a result of public recapitalization of the largest state-owned commercial banks.49

While the overall improvement in the health of the banking sector in the region has been impressive, three points should be noted.

First, international differences in accounting and financial reporting standards and practices mean that the standard financial ratios may overstate the performance and soundness of banks in some countries. For example, although countries in the region have converged to the 90-day standard for overdue payments to be classified as nonperforming, ambiguity can arise as to whether or not these standards apply to loans made on concessional terms (loans that have been restructured via extended maturities or reduced interest rates).50 The definition of concessional terms can also vary. Since provisioning rules require different percentages of provision for different classes of loan, more lenient accounting rules will overstate real capital by the amount that would have been set aside as additional loan-loss provisions under stricter rules. Also, while collateral is often deductible from loan-loss provisions, this practice assumes that if the borrower defaults the bank can collect the assumed value of the collateral. How much the bank can actually collect will depend on the nature of the collateral and how the collateral is valued, and also on the country’s bankruptcy code and judicial system. Similarly, Basel rules permit regulators to allow banks to deduct up to 45 percent of unrealized gains as Tier 2 capital. The proportion of their unrealized losses that banks are allowed to deduct from capital can vary across countries.51

Second, the NPL ratio in East Asia remains high relative to those in other regions of the world, while profitability and risk-weighted capital-adequacy ratios remain slightly lower.

Third, there is considerable variation in the NPL ratio across countries and banks in the region (Figure 4.3).

Financial intermediation by banks

What are the trends in bank financial intermediation? Do the relatively strong capital-adequacy ratios reflect the still-large holdings of government bonds with low risk weights? Are banks lending to corporate entities again? To what extent have they broadened their lending to serve consumers? And have the structural changes that have taken place in the banking sectors across the region—namely consolidation and changes in ownership—been accompanied by the provision of a wider range of services—both fee and non-fee

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**FIGURE 4.3 Performance of East Asian Banks Relative to Those of Other Regions**

![Graph showing performance of banking sector across regions and median NPL ratios and variance across banks in the East Asian region.](source: IMF 2005.)
based? If so, how well are banks that are undertaking a broader range of such services performing?

Banks have yet to resume their pre-crisis role in financing the private sector (Figure 4.4). In particular, in Indonesia, the Philippines, and Thailand, domestic credit to the private sector as a percentage of GDP is still sizably below pre-crisis levels. During 1998–2004, domestic credit to the private sector as a share of GDP declined in Thailand (its growth has only turned positive since 2002) and grew by less than 1 percent per year in the Philippines. In Indonesia and the Philippines, holdings of government assets in banks still constitute around 15 percent of GDP.

**Lending to consumers**

Of the domestic credit that banks have extended to private borrowers, a growing share has gone to consumers (Box 4.1). In 2004, consumer lending accounted for 53 percent of total bank lending in Malaysia, 49 percent in Korea, 30 percent in

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**FIGURE 4.4 Deposit-Money Banks’ Claims on the Private Sector and Government**

![Graphs showing Deposit-Money Banks’ Claims on the Private Sector and Government for various countries over time.](image-url)

*Source: IMF IFS.*

*Note: DCP = domestic credit to the private sector.*
Lending to consumers has expanded significantly in most countries in the region over the past five years or so, although the ratio of household debt to GDP remains low in comparison to that of advanced industrialized countries.

What have been the main factors underlying this expansion in consumer borrowing? On the demand side, theory suggests that aggregate household demand for borrowing will depend on three main factors: demographics, expectations of future income, and expectations regarding the path of real interest rates. In particular, household indebtedness tends to rise when people expect incomes to grow, because households borrow against their expectations of higher future income in order to achieve a more stable path of consumption. The impact of real interest rates is theoretically ambiguous and depends on the distribution within the population of households at different stages of the life cycle. On the one hand, a decline in real interest rates decreases the costs of borrowing and increases the present value of labor income, encouraging households to borrow. On the other hand, lower real interest rates reduce the return on household assets, thus reducing the present value of their earnings and lowering the desired debt holding. The overall effect of a decline in interest rates will therefore depend in part on the demographics; younger households with prospects of higher income are more likely to respond by borrowing more, whereas older households with accumulated wealth are less likely to do so.

On the supply side, the regulatory and institutional features—particularly those that limit the ability of households to borrow to their desired level and limit the timing of their borrowing—will determine the level of indebtedness. With the reduction in corporate-sector demand for bank financing over the past few years (as corporations have sought to restructure and have begun to find alternative sources of financing), banks and other financial institutions have increasingly focused their lending on the household sector and credit constraints on households have been eased. Brisk growth has occurred in consumer-finance products, ranging from vehicle hire purchase to credit cards. In several cases (such as in Korea) the supply of credit to households has also received an impetus from government policies.

Consumer loans now account for more than 15 percent of total loans in Indonesia, Korea, Malaysia, and Thailand.

<table>
<thead>
<tr>
<th>Economy</th>
<th>Factors affecting household borrowing demand</th>
<th>Factors helping to increase availability of finance to households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>Annual GDP growth of 4.6 percent in 2000–04. Real interest (lending) rate decline of more than 6 percentage points during 2000–04.</td>
<td>Increased focus of banks on retail lending, partly because corporations were burdened with debt overhang and needed to deleverage.</td>
</tr>
</tbody>
</table>
Indonesia, 17 percent in Thailand, 15 percent in China, and 10 percent in the Philippines. In Hong Kong (China) and Singapore, consumer lending is well developed and accounts for 40–50 percent of total bank lending. However, loan growth over the past few years has been quite sluggish in these two economies, reflecting weak property markets and slower economic growth.

In most countries, the bulk of lending to consumers is mortgage finance—more than 77 percent in China, and more than half in Korea, Malaysia, and Thailand. In Indonesia, housing accounts for only 20 percent, while loans for motor vehicles account for 45 percent of loans to individuals. Loans for vehicles are the next largest category after housing in most countries. Credit-card lending has grown rapidly but

### BOX 4.1 Reasons for the Expansion in Consumer Lending (Continued)

<table>
<thead>
<tr>
<th>Economy</th>
<th>Factors affecting household borrowing demand</th>
<th>Factors helping to increase availability of finance to households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>Annual GDP growth of 5.3 percent in 2000–04. Real interest (lending) rate decline of almost 1.5 percentage points during 2000–04.</td>
<td>Increased focus of banks on retail lending, in part because corporates were burdened with debt overhang and needed to deleverage.</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>Annual GDP growth of 5.4 percent in 2000–04. Real interest (lending) rate decline of almost 4 percentage points in 2000–04. Introduction of deduction from taxable income equivalent to 20 percent of credit-card purchases in excess of 10 percent of gross income. Lottery ticket granted for each purchase to increase credit-card usage and bring merchants into the value-added tax net.</td>
<td>Increased focus of banks on retail lending, in part because corporates were burdened with debt overhang and needed to deleverage. In May 99: impetus to credit-card industry through removal of cash advances, which had previously accounted for about half of total turnover.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Annual GDP growth of 5.1 percent in 2000–04. Real interest (lending) rate decline of 3.5 percentage points during 2000–04. Tax breaks for homebuyers and tax incentives associated with sale and transfer of property.</td>
<td>Increased focus of banks on retail lending, in part because corporates were burdened with debt overhang and needed to deleverage. Government encouragement of government banks and state financial institutions to extend credit to constrained borrowers.</td>
</tr>
</tbody>
</table>

Delinquencies in consumer lending vary among countries:

In Indonesia, delinquencies on consumer loans have been fairly low, despite the rapid growth in lending.

In Korea, since the economy stabilized after the crisis, losses have been extremely small on mortgage lending, but higher on unsecured consumer lending, including on credit cards. The latter were especially high in 2002 and 2003, when charge-offs peaked at close to 30 percent. Delinquency rates have since fallen to modest levels. Korea’s Financial Supervisory Services (FSS) has historically set minimum provisioning charges for banks and credit-card companies. From 2006, FSS plans to replace its minimum provisioning requirements with a model-based system using historical loss data. The Korean government strictly regulates the loan-to-value (LTV) ratio on mortgage loans (to about 57 percent).

In Thailand, commercial banks’ NPLs for housing have declined to 12 percent from a post-crisis peak of 30 percent, while those on vehicle hire purchase and credit cards have fallen to 5 percent (from 20 percent and 40 percent in the post-crisis peaks respectively). Sub-prime delinquencies are higher.

**Factors affecting household borrowing demand**

**Malaysia**
- Annual GDP growth of 5.3 percent in 2000–04.
- Real interest (lending) rate decline of almost 1.5 percentage points during 2000–04.

**Rep. of Korea**
- Annual GDP growth of 5.4 percent in 2000–04.
- Real interest (lending) rate decline of almost 4 percentage points in 2000–04.
- Introduction of deduction from taxable income equivalent to 20 percent of credit-card purchases in excess of 10 percent of gross income. Lottery ticket granted for each purchase to increase credit-card usage and bring merchants into the value-added tax net.

**Thailand**
- Annual GDP growth of 5.1 percent in 2000–04.
- Real interest (lending) rate decline of 3.5 percentage points during 2000–04.
- Tax breaks for homebuyers and tax incentives associated with sale and transfer of property.

**Factors helping to increase availability of finance to households**

**Malaysia**
- Increased focus of banks on retail lending, in part because corporates were burdened with debt overhang and needed to deleverage.

**Rep. of Korea**
- Increased focus of banks on retail lending, in part because corporates were burdened with debt overhang and needed to deleverage.
- In May 99: impetus to credit-card industry through removal of cash advances, which had previously accounted for about half of total turnover.

**Thailand**
- Increased focus of banks on retail lending, in part because corporates were burdened with debt overhang and needed to deleverage.
- Government encouragement of government banks and state financial institutions to extend credit to constrained borrowers.

*Sources: World Bank, Fitch Ratings 2006.*
typically remains quite a small proportion of consumer lending (for example, 10 percent in Indonesia and 5.5 percent in Malaysia), except in Korea, where it accounts for about 30 percent.52

Despite the recent fairly rapid growth in consumer lending, household indebtedness remains low in East Asia in comparison to that in most advanced industrialized countries, at around 61 percent of GDP in Malaysia, 60 percent in Korea, and much less in the other countries (34 percent of GDP in Thailand, 13 percent in China, 8 percent in Indonesia, and 4 percent in the Philippines).

**Residential mortgage lending**

Residential mortgage markets in the region have revived and expanded since the crisis which had depressed the national housing systems and was itself amplified by a real estate crisis in several countries, such as Indonesia and Thailand.53

Even excluding Hong Kong (China) and Singapore, countries in the region compare well to other regions in terms of the size of mortgage finance. However, the markets are heterogeneous across the countries in terms of scale, structure, depth, risk exposure, and accessibility. The evolution in market developments is raising new opportunities but also challenges for national policy makers and regulators, both from the perspective of financial sector soundness and accessibility for lower-income groups. This section focuses on the mortgage markets in China, Indonesia, and Thailand. Although the discussion centers on the residential mortgage market, a thorough analysis of this market requires looking at the interplay between the mortgage markets, the housing markets, and the bond markets.

In Indonesia and Thailand, the level of mortgage debt has regained its pre-crisis levels at around 1.8 percent of GDP and 15 percent of GDP respectively (figure 4.5). In China, the pace of expansion of mortgage debt has been impressive (figure 4.6).

Underlying the growth in mortgage finance on the demand side has been the rapid urbanization that is taking place (with the urban population in the region growing by 2.6 percent per year as compared to a world wide average of 2.0 percent), and continued demographic changes. These factors will continue to fuel demand for housing over the next 5–10 years. In China, for example, it is estimated that the urban population will increase from around 41 percent in 2005 to around 54 percent by 2020—(including a rapid increase in the number of lower-middle-income households). The urbanization pressure is also intense in countries such as Indonesia and Thailand, where the percentage of the urban population is currently still relatively low (48 percent and 32 percent, respectively) and is increasing.
In China the demand for housing has also been fueled to some extent by a lack of alternative investment opportunities (insurance products, capital markets) to channel household savings.  

There have also been factors operating on the supply side, including some improvements in mortgage infrastructure that have facilitated the expansion of mortgage lending from the perspective of creditors. For instance, as mentioned below, a new credit bureau, which includes retail loans, has just been established in Thailand. Indeed, since the crisis, most lenders have improved their organization, mortgage lending underwriting, servicing standards, and IT systems, and have introduced new scoring tools.

As noted in box 4.1, bank lending since the crisis has been largely directed toward the consumer segment, and much of this lending has been for mortgage finance. In fact, banks are, at present, the main providers of mortgage finance in the region. Thus the aftermath of the crisis has favored the rise of private mortgage markets over specialized public lenders, as seen in Korea and Indonesia. The housing banks in the region (mostly in Indonesia and Thailand) now operate as commercial banks and are supervised as such. They both lend to the unsubsidized middle-income household markets as well as lower-income households (with subsidies from the government). So far, the quality of the residential mortgage portfolio has been excellent, despite the rapid pace of growth in lending. It is important to note, however, that mortgage lending in China remains a new activity for most banks, which compete through volumes without adjusting their underwriting and servicing policies to costs and risks. Although the Peoples’ Bank of China (PBOC) has liberalized mortgage markets in 2005, banks are still not pricing these loans according to risks as they are still competing by applying the floor level set by the PBOC (5.51 percent); the pilot fixed rate mortgages introduced do not reflect any premium in line with the additional market risk. Measures to enhance risk management in banks are therefore much needed. In the meantime, it would be important for the regulatory authorities to enforce strict lending safeguards, notably through high loan to value limits (at 70 percent these are even higher than those imposed in Korea). Also important to note is that there is potential vulnerability and concentration exposure from other property-related loans (to developers and commercial properties) in some countries in the region. In China, for example, the nonperforming loan (NPL) ratio of banking loans to developers reached a record 10.5 percent at the end of 2004.

While there has been a steady expansion in mortgage finance over the past few years, there are aspects of the key building blocks of mortgage finance that could be strengthened in several countries in the region, but most notably in China. Well-functioning primary mortgage markets require certain elements be in place, including (a) the legal foundations for an efficient system of collateral; (b) good property
valuation mechanisms; (c) availability of consumer information (credit scoring methods and credit information); and (d) mortgage default insurance.\textsuperscript{58} These elements are in place to varying degrees across countries in the region.

The legal foundation of an efficient system of collateral has several key dimensions, including clear title and ownership rights; an up-to-date, reliable, and transparent property registration and cadastre system; efficient foreclosure procedures and the ability to evict the defaulting debtor after foreclosure; and an appropriate priority ranking for the mortgage lien for payment disbursement from foreclosure proceeds. As noted in Chapter 3, countries are at different stages regarding the legal foundations for mortgage lending. In China, the enforceability of foreclosure remains largely untested. In Indonesia, while security interests can be taken over land and mortgage lending is adequately regulated in the law, it can prove more difficult for creditors to enforce a security interest. The main weakness in the law is that in cases where the occupant of a foreclosed property refuses to vacate the premises, eviction requires a court order. Thus enforcement can take several years. In Thailand, there is a need to develop national standards for property title and mortgage registration for all regions as well as electronic data systems for title and registration information. And, although the process has improved since the crisis—partly as a result of internal improvements by the courts and partly due to the greater experience gathered in having gone through the crisis—foreclosure can still take a long time, and as long as 5 years if resolved through the courts.

Property valuation systems, both for the value of the loan at origination and for changes in value over the life of the loan, is a second component of an efficient collateral system. The quality and reliability of property valuation standards were brought into question in some countries during the crisis, notably in Thailand and Indonesia. Since then significant efforts have been made to upgrade appraisal standards and to enforce already existing codes of ethics. In Thailand valuations for public purposes must be carried out by listed key valuers approved by the SEC. The Bank of Thailand (BOT) also recently issued notifications requiring that collateral appraisals conform, at a minimum, to the generally accepted appraisal standards and codes of conduct like those used by the Valuers Association of Thailand and The Thai Valuers Association. In Indonesia, the appraisal profession is regulated by two professional organizations who qualify their members. Many banks have in-house appraisers, but in the case of large complex properties, they hire outside appraisal firms for second or third opinions. However, a 2001 study by the Housing Market Indonesia (HOMI) project found the methods used by the appraisal profession still lacking: too often the value of properties is based on “costs” or developer’s sale prices rather than on real (resale) value.

Consumer credit bureaus and credit scoring can significantly increase the credit extended by financial institutions (see box 4.7). In Thailand a new credit bureau that includes retail loans has been established, and a project to create a Real Estate Information Center is ongoing. Indonesia has also recently established a private credit bureau, and except for China, countries in the region now have credit bureaus in place, although, as shown in table 3.3, the characteristics of the credit information infrastructure vary considerably across countries in the region.

Finally, mortgage default insurance—a specialized form of credit insurance that protects both residential mortgage lenders and investors in mortgage securities against potential losses caused by a borrower’s default—if well designed, can significantly reduce non-price credit rationing and the requirement for a large down payment (see, for instance, the positive experience of the Hong Kong Mortgage Corporation Box 4.2).\textsuperscript{59} At present there is no mortgage insurance in Thailand, Indonesia, or China. However, new initiatives are under way to introduce national systems of mortgage default insurance in Thailand when a project is already fairly advanced, and in China. Such developments would require modifications to the regulatory framework of the insurance sector and additional efforts to develop appropriate standards to avoid problems of adverse selection and moral hazard.

Continued efforts to strengthen these key building blocks will be important in ensuring that the growing demand for mortgage finance can be met efficiently going forward.

Most markets offer attractive conditions for their mortgage loans, with adjustable credit rates between 5 and 8 percent per year.\textsuperscript{60} The maturities of the loans may be 20 to 25 years (or even up to 30 years in Thailand and China), although the actual average life of housing loans is between 10 and 15 years (and much
BOX 4.2 The Hong Kong Mortgage Corporation

The Hong Kong Mortgage Corporation (HKMC) was established in 1997 as a specialized and public owned secondary mortgage company. Its objectives are similar to other such companies created in the region: (a) to provide liquidity and risk management tools for the competing mortgage lenders and (b) to develop corporate bond markets and securitization. Its sole shareholder is the Hong Kong Exchange Fund (with an authorized capital of HK$3 billion). The Company was created when banks were operating in an environment of a liquidity crunch; however, at present, these banks are very liquid and well capitalized and have limited interest in securitizing their best performing mortgage loans. (The residential mortgage portfolio has demonstrated excellent resiliency even during adverse times, and the non-performing loan ratio has now reached a historical low of 0.53 percent.)

The HKMC has been funding its mortgage purchases by issuing bonds (it has a large debt issuance program but also issues MBS pass-throughs). (However, as noted above, given the liquid conditions that they are operating under, banks have been reluctant to sell their mortgage portfolios, which has limited the net funding contribution of the HKMC to mortgage markets—HKMC owns about 5 percent of the overall portfolio, mostly funded by simple bonds, as opposed to MBS).

Since 1999 HKMC has also been gradually extending a successful mortgage default insurance program for lenders, which sells a limited first loss guarantee for mortgage loans exceeding the regulatory limit of 70 percent loans to value (LTV). The program can increase the LTV ceilings to up to 95 percent. The insurance program is partly reinsured by the private sector. The existence of this program has improved the affordability of housing finance for households that would not have the ability to make sufficient down payments for their loans. The penetration ratio of this insurance program rose to 25 percent by end-2005 (for a total of 35,000 households).

TABLE 4.2 Mortgage Rates Offered by Banks in Selected Economies (2006, adjustable rates in percent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Rate Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>5.51</td>
</tr>
<tr>
<td>Indonesia</td>
<td>15.0–17.0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5.5–7.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>6.0–8.0</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>5.0–6.5</td>
</tr>
</tbody>
</table>
establishment of conditions for the innovative mortgage backed securities (MBS) to be treated as collateral for repo markets; this would enhance their liquidity and hence their attractiveness. In most countries, there is also no private external credit enhancement system, including pool guarantees or individual mortgage insurance, which means that the structuring of the transaction has to rely on expensive internal enhancements for the issuer (leaving little capital relief) or public guarantees that transfer part of the risk into fiscal liabilities.

While efforts need to be made to accelerate the development of mortgage securitization, for countries that still have a considerable way to go in strengthening the building blocks needed to undertake complex mortgage-backed securitization on a large scale, other simpler forms of private mortgage securities can be explored in the interim. Two main areas to explore would be:

1. Liquidity facility, which leaves the credit risk, along with most of the margin to the primary lenders until a second phase of securitization can be reached (the Cagamas model in Malaysia until 2004 is an example, see box 4.3). Indeed, in addition to Malaysia, other countries such as France, Mexico, Switzerland, and even the United States (Federal Home Loan Banks) have successfully developed variants of this model.

2. Covered bonds, which are issued directly by the banks as balance sheet funding instruments. The rating of such bonds would need to be enhanced by a cover pool of mostly safe mortgage loans (using the matching principle), and bond investors would have to have legal priority over other creditors in the event of bankruptcy. This would enable large lenders to access the bond market under favorable conditions, without selling their best mortgage loan assets. Such products have been successfully developed in the Czech Republic, Denmark, Germany, and Hungary, and on a very large scale in Chile. However, the development of a covered bond market also requires some minimum legal and regulatory framework to be in place to ensure both the bankruptcy privilege and the matching requirement during the whole life of the bonds (including eligible mortgage assets, replacing requirements, specific register for the cover assets, adjusted and disclosure and oversight systems, etc.) in unambiguous terms to protect the interests of the investors.

Economies such as Hong Kong (China), Korea, Singapore, and Malaysia do have the key elements of the infrastructure for MBS in place. Even in these economies, however, securitization of mortgage loans has been slow, because banks are flush with liquidity and have so far been reluctant to sell their profitable mortgage loans. This tendency has been

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**Box 4.3 Cagamas: The National Mortgage Corporation in Malaysia**

Cagamas Berhad was created in 1987 as a private specialized company to help housing lenders manage their financial risk and expand their lending, as well as to develop private bond markets. Capital has come mostly from the financial institutions, with 20 percent of the shares held by Bank Negara.

The Company has been purchasing residential loans from competing lenders (most of the loans are adjustable rate loans) on a full recourse basis and for limited periods, funded by issuing private bonds. Cagamas has been operating more as a liquidity facility than a securitization conduit. Initially, key regulatory and stamp duties were granted to its refinanced loans and bonds to increase their attractiveness to financial institutions. The environment for its development has been favorable for the following reasons: (1) Malaysia is a relatively stable macro-economy; (2) there is a well-developed bond market infrastructure; (3) an efficient system of property title registration is in place; (4) there is a pro-active housing policy, which permitted the production of affordable housing; and (5) there are some well regulated and competitive private credit institutions.

Its funding of mortgage markets reached 41 percent, at the peak of the crisis (operating as a private funding buffer in adverse times), which fell to 12.6 percent subsequently, as the more liquid banks mobilized alternative funding. Cagamas has played a catalytic role in improving the affordability of mortgage loans. It has been a major issuer of private bonds (at end-2005 it still accounted for 14 percent of total corporate bonds outstanding). The company has diversified its financing products as the market’s needs have evolved. In addition to housing loans, it began to purchase conventional products in 1998 and 2001, respectively.

The preferential treatment of debt instruments issued by Cagamas was removed to create a level playing field for other financial institutions and encourage Cagamas to enter into true securitization transactions. In response, in 2004, the Company began securitizing the housing loans extended by the government to civil servants. Cagamas has also recently launched a landmark Islamic securitization transaction that has been very well received.
reinforced by the adjustable rate nature of their portfolios, which has limited their exposure to financial risks. Further market competition, the adoption of Basel II, and increased awareness that securitization represents an effective risk management tool, may gradually change this situation.

Finally, in several countries in the region, there is also an issue of affordability and access to housing by low-income households and households that rely on the informal labor market. Affordability is limited by high house prices, and high down-payment requirements. High origination costs and high servicing costs also act as a barrier against small loans. And in some cases there is still a large number of households (low income and/or operating in informal labor markets) that are not served by banking services (see table 4.3). As a result, even in countries where the size of the overall mortgage portfolio is decent, for example in Thailand, the majority of households still does not leverage debt from any credit institution but rather relies on equity-financed self construction. This results in delayed and expensive access to home ownership. In Indonesia the estimated proportion of equity-financed self construction is as high as 65 percent.

New initiatives in countries to introduce national systems of mortgage default systems (as discussed above) would help active housing lenders to better manage their credit risks with fewer down payments from households. Another important element of infrastructure that is currently missing is the provision of consumer information packages.

A survey of housing finance markets in the region also suggests that the provision of several other commercial loan products that are currently missing in several markets would help cater to the needs of low-income households. These include indexed loans (which would reduce the exposure of loans to inflation), and home equity loans (which do not exist in China, Indonesia, and Thailand). Also important is the development of other savings and credit products, including the provision of housing micro-finance, residential leasing loans (such as the one initiated in Thailand through a hire purchase program funded by the Government Housing Bank (GHB)); and contractual housing savings schemes that would help these households to build both equity and a favorable score from credit institutions.

From the perspective of accessibility, it is also important to note that the development of housing finance is constrained by land supply rigidities and urban development regulations in some countries—a situation in which housing prices rise faster than household incomes, despite favorable credit conditions. Addressing this issue requires the development of appropriate overall housing policy, including land policy and housing regulations. An appropriate housing policy should also include a sufficient budgetary contribution to “smart” housing finance subsidies; subsidies that would be socially targeted according to incomes and affordable housing conditions, allocated in a transparent manner, and be efficient in leveraging debt from the market (not only from credit institutions but also by finance companies, savings associations, and micro lenders).

**Lending to corporations**

Bank lending to corporate entities has been muted since the crisis. In part this reflects slow demand, both because investment has remained low and because firms have restructured and de-leveraged and financed a significant proportion of their capital needs through retained earnings (Box 4.4). Firms have also sought alternative sources of external financing as financial markets in the region have broadened. For

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**BOX 4.4 Progress in Corporate De-Leveraging and Corporate Performance**

Over the past few years, the financial health of corporations in East Asia has improved over several dimensions, with significant progress made in de-leveraging in the crisis-affected countries. As the table below shows, the median corporate debt-equity ratios were lower in 2001–4 than during the crisis and its immediate aftermath (1997–2000), as a result of corporate debt restructuring, a significant pay-down of debt by firms, and a strengthening of exchange rates. (The burden of debt denominated in foreign currency soared because of the massive devaluations of local currencies that took place during the crisis.) In some cases, debt levels have also fallen well below those in the pre-crisis period, 1994–96. Korea has seen the most dramatic reductions in corporate indebtedness, with median debt-equity ratios now only around one third of their pre-crisis levels. Thailand has also seen substantial declines in debt to pre-crisis levels.

(Continued)
**BOX 4.4 Progress in Corporate De-Leveraging and Corporate Performance (Continued)**

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</thead>
<tbody>
<tr>
<td><strong>Debt to equity ratio (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>46</td>
<td>55</td>
<td>48</td>
<td>63</td>
<td>56</td>
<td>76</td>
<td>59</td>
<td>79</td>
<td>62</td>
<td>86</td>
</tr>
<tr>
<td>Indonesia</td>
<td>71</td>
<td>82</td>
<td>140</td>
<td>289</td>
<td>65</td>
<td>150</td>
<td>64</td>
<td>145</td>
<td>68</td>
<td>140</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>181</td>
<td>252</td>
<td>123</td>
<td>227</td>
<td>60</td>
<td>106</td>
<td>53</td>
<td>98</td>
<td>49</td>
<td>77</td>
</tr>
<tr>
<td>Malaysia</td>
<td>49</td>
<td>67</td>
<td>54</td>
<td>122</td>
<td>39</td>
<td>76</td>
<td>40</td>
<td>78</td>
<td>40</td>
<td>72</td>
</tr>
<tr>
<td>Philippines</td>
<td>39</td>
<td>63</td>
<td>61</td>
<td>113</td>
<td>51</td>
<td>106</td>
<td>45</td>
<td>138</td>
<td>55</td>
<td>70</td>
</tr>
<tr>
<td>Thailand</td>
<td>94</td>
<td>109</td>
<td>113</td>
<td>288</td>
<td>58</td>
<td>118</td>
<td>59</td>
<td>97</td>
<td>47</td>
<td>77</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>44</td>
<td>60</td>
<td>36</td>
<td>61</td>
<td>32</td>
<td>55</td>
<td>33</td>
<td>59</td>
<td>34</td>
<td>51</td>
</tr>
<tr>
<td>Singapore</td>
<td>38</td>
<td>50</td>
<td>46</td>
<td>67</td>
<td>37</td>
<td>61</td>
<td>38</td>
<td>60</td>
<td>54</td>
<td>35</td>
</tr>
<tr>
<td>United States</td>
<td>56</td>
<td>75</td>
<td>64</td>
<td>90</td>
<td>65</td>
<td>102</td>
<td>63</td>
<td>100</td>
<td>54</td>
<td>92</td>
</tr>
</tbody>
</table>

| **Interest coverage (median, %)** |                                   |                        |                  |                |                |              |             |           |             |           |
| China               | 4               | 4             | 4                | 4              | 4              | 4             |             |           |             |           |
| Indonesia           | 3               | 1             | 2                | 2              | 2              | 2             |             |           |             |           |
| Rep. of Korea       | 1               | 2             | 3                | 3              | 3              | 4             |             |           |             |           |
| Malaysia            | 6               | 3             | 4                | 5              | 5              | 5             |             |           |             |           |
| Philippines         | 5               | 1             | 1                | 1              | 1              | 1             |             |           |             |           |
| Thailand            | 3               | 2             | 6                | 7              | 9              |               |             |           |             |           |
| Hong Kong (China)   | 4               | 3             | 5                | 6              | 7              |               |             |           |             |           |
| Singapore           | 6               | 5             | 7                | 8              | 10             |               |             |           |             |           |
| United States       | 7               | 7             | 6                | 5              | 6              |               |             |           |             |           |

| **Return on assets (median, %)** |                                   |                        |                  |                |                |              |             |           |             |           |
| China               | 7               | 4             | 5                | 5              | 4              |               |             |           |             |           |
| Indonesia           | 9               | 4             | 5                | 4              | 4              |               |             |           |             |           |
| Rep. of Korea       | 6               | 5             | 5                | 5              | 5              |               |             |           |             |           |
| Malaysia            | 8               | 3             | 4                | 4              | 4              |               |             |           |             |           |
| Philippines         | 8               | 2             | 2                | 2              | 2              |               |             |           |             |           |
| Thailand            | 7               | 3             | 8                | 8              | 9              |               |             |           |             |           |
| Hong Kong (China)   | 7               | 4             | 4                | 4              | 5              |               |             |           |             |           |
| Singapore           | 5               | 4             | 4                | 5              | 6              |               |             |           |             |           |
| United States       | 8               | 9             | 7                | 7              | 8              |               |             |           |             |           |

Broadly speaking, lower debt-equity ratios should render firms less vulnerable to volatile economic conditions that drive them into insolvency and prevent them from servicing their debt. While debt-equity ratios give insight into the structure of the firm’s balance sheet, interest-coverage ratios measure the impact of debt on the firm’s income statement, showing the number of times the firm’s profits cover interest payments on debt. (A low ratio indicates that the firm is vulnerable to shocks that reduce profits and may leave it unable to service debt.) The above table also shows that interest coverage has generally improved during the post-crisis period, with Korea and Thailand again showing the biggest gains. However, interest-coverage ratios remain relatively low in Indonesia and the Philippines.

The average or mean debt-equity ratios in East Asia are generally higher than the medians. This indicates the presence of a certain number of firms with extremely high levels of debt. However, the proportion of firms with very high debt levels has also been falling over time in most countries.

Data on the median return on assets (ROA) in the table above provide some information on trends in corporate profitability. Profitability has generally been recovering slowly from the sharp declines suffered during the crisis, with ROAs remaining below their pre-crisis levels in most cases. In part the gradual pace of improvement in profits may be linked to the external shocks, such as the dot com crash and the steep downturn in the world high-tech industry in 2001 that came on the heels of the financial crisis. The gradual pace of recovery in profitability is consistent with the slow and erratic recovery of investment in the region.

(Continued)
their part, however, banks may have become more risk-averse.

Overall, while debt-equity ratios, interest-coverage ratios, and profitability have been moving in the right direction, there are still areas of vulnerability in the regional corporate picture. Examples include the relatively low interest-coverage ratios in countries such as Indonesia and the Philippines, a still-gradual pace in the improvement of corporate profitability, and a continued hesitation in undertaking new business investment on a substantial and sustained scale.

**The reach of banking services**

How good is access to and usage of bank services in the region? As shown in Figure 4.7, banks in East Asian countries have achieved quite a broad reach, at least through a combination of bank branches and automated teller machines.

Of course, access does not equal use, and without specific surveys it is generally difficult to obtain information on the use of bank services by households or small firms. However, Beck, Demirgüç-Kunt, and Martínez-Peria (2005) have predicted the share of households that have bank accounts and the share of small firms that have bank loans, based on econometric relationships, using the number of deposit and loan accounts in an economy at the aggregate level (Table 4.3). Their results suggest that in Indonesia, for example, about 21 percent of households have bank accounts, and about 39 percent of small firms have bank loans. The percentage of households with bank accounts is only slightly larger in the Philippines, but twice as high in Thailand, at almost 50 percent of households.

**Microfinance**

A key challenge is to extend banking services to lower-income households and very small enterprises. Providers of microfinance offer services to lower-income people, typically in units smaller than the country’s per capita GDP. In a number of countries, governments have compelled banks to provide microfinance, especially to sectors such as small or agricultural enterprises considered by the government to be social priorities. Often it has been difficult to find sustainable models of service provision, and some banks that have attempted to serve this market have failed.

Increasingly, however, commercial banks around the world are entering the microfinance market of their own accord, because they see opportunities there for sustainable profit and growth. Compared with many providers of microfinance, commercial banks have several potential competitive advantages, such as recognizable consumer brand names, existing infrastructure and systems, and access to capital (CGAP 2005).

Banks that have succeeded have used several different approaches to enter the market. These can be divided into two main categories—direct
and indirect—based on how the bank makes contact with clients. Some banks enter the market directly through establishing an internal microfinance unit, or a specialized financial institution, or a microfinance service company. Other banks deal with clients indirectly, working through existing providers by outsourcing their retail operations, or providing commercial loans to microfinance institutions, or providing infrastructure and systems. Each of these approaches has its particular rationale, risk profile, success factors, and costs. For banks to succeed in microfinance, it is important that they take into account factors such as the level of competition, the regulatory environment, market size, existing infrastructure and systems, and their own business goals in choosing among these approaches.

A number of considerations for policymakers arise if a country is to provide an environment that encourages the provision of microfinance by banks. These are discussed in Box 4.6 later in this chapter, within the context of a broader discussion of policy issues for banking.

**Services provided by banks**

All countries in the region allow banks to conduct business in other segments such as securities, insurance, and real estate, albeit with varying degrees of restrictiveness. With the consolidation that has
taken place in the banking sector in the region, banks could be expected to undertake a broader range of services.

In principle, consolidation allows banks to exploit economies of scale, scope, organization, management, and product mix. Recent studies, albeit mainly of U.S. banks, that have corrected for the additional risk-taking that often accompanies consolidation, have found evidence of economies of scale ranging from US$3–5 billion in asset size (Hughes and others 1996, 1998). Consolidation can also allow banks to exploit economies of scope: the ability to offer clients one-stop shopping for different financial products can produce synergies brought about by the integration of different business units. These synergies can be broadly divided into cost reduction and revenue enhancement. On the cost-reduction side, the synergies include the sharing of fixed costs such as for branches, data processing, personnel services, or the use of customer information for multiple purposes (for example, a bank can use information on deposit behavior to assess a client’s risks of bankruptcy and default). On the revenue-enhancement side, differences in revenues between operations can be dispersed across multiple different divisions of the bank, helping to spread risks. Customers, too, can benefit from economies of scale, saving some of their banking service expenses by using multiple services at the same time. This may increase demand and hence revenues.

How much consolidation has taken place in the region? Though concentration ratios have not increased (Table 4.1 above), there has been a large rise in the median size of banks since the crisis, measured in terms of either assets or deposits (Table 4.4). Indeed, in several economies in the region (Hong Kong [China], Korea, and Thailand), the median bank is larger than in Germany, the United Kingdom, or the United States.

Banks in the region have also significantly broadened their range of services. While it is difficult to gauge systematically the range of services that banks are providing, income statements make it possible to assess the extent to which banks are now providing fee- and non-fee-based services. The income-diversification index in the last column of Table 4.4 shows that the diversification of banking activities has increased particularly fast in Hong Kong (China), Malaysia, the Philippines, and Thailand.

Thus far, banks are not yet fully benefiting from consolidation. Analysis shows that the average performance of diversified banks is poorer than those of specialized banks. While some of the other structural and policy changes have been beneficial (for instance, banks that have greater foreign ownership and better capitalization perform better than other banks in the region), banks that are larger and banks that are undertaking a broader range of activities are not yet enjoying economies of scale and scope (Box 4.5).

Effectively reaping the benefits of consolidation is a learning process and for many banks in the region it is probably too early to see the results. However, it is also important to note that the bulk of the consolidation that has taken place so far has been

### TABLE 4.3 Predicted Shares of Households and Small Firms Using Banking Services

<table>
<thead>
<tr>
<th>Economy</th>
<th>Share of households with bank accounts (percent)</th>
<th>Share of small firms with bank loans (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>20.7</td>
<td>39.1</td>
</tr>
<tr>
<td>Korea</td>
<td>65.2</td>
<td>n.a.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>60.0</td>
<td>51.0 (52)</td>
</tr>
<tr>
<td>Philippines</td>
<td>22.6</td>
<td>n.a.</td>
</tr>
<tr>
<td>Singapore</td>
<td>97.7</td>
<td>63.1 (60)</td>
</tr>
<tr>
<td>Thailand</td>
<td>49.1</td>
<td>47.9</td>
</tr>
<tr>
<td>Bolivia</td>
<td>12.1</td>
<td>25.1</td>
</tr>
<tr>
<td>Chile</td>
<td>45.9</td>
<td>50.7</td>
</tr>
<tr>
<td>Lithuania</td>
<td>35.3</td>
<td>38.7</td>
</tr>
<tr>
<td>Spain</td>
<td>83.7</td>
<td>60.4</td>
</tr>
<tr>
<td>Turkey</td>
<td>48.5</td>
<td>41.5</td>
</tr>
</tbody>
</table>

**Memorandum:**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Share of households with bank accounts (percent)</th>
<th>Share of small firms with bank loans (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>12.1</td>
<td>25.1</td>
</tr>
<tr>
<td>Chile</td>
<td>45.9</td>
<td>50.7</td>
</tr>
<tr>
<td>Lithuania</td>
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<td>38.7</td>
</tr>
<tr>
<td>Spain</td>
<td>83.7</td>
<td>60.4</td>
</tr>
<tr>
<td>Turkey</td>
<td>48.5</td>
<td>41.5</td>
</tr>
</tbody>
</table>

**Source:** Beck, Demirgüç-Kunt, and Martinez-Peria 2005.

**Note:** n.a. = not available. Numbers in parenthesis are based on actual survey data rather than econometric estimation.
BOX 4.5 Impact of Structural Changes on Banking Sector Efficiency: Empirical Analysis

To shed light on the impact the structural changes and policy reforms are having on banks, cross-country regression analysis was undertaken on a sample of commercial banks in the region using data from their audited financial statements. The sample covers the largest publicly listed and private banks in the region. The economies covered are Hong Kong (China), Indonesia, Korea, Malaysia, the Philippines, Singapore, and Thailand.

In the analysis, the indicator of banking sector efficiency that is used is the ratio of operating income to total assets. However, because the performance of banks can differ depending on the diversity of activities they engage in, it is important to adjust the performance indicator for the type(s) of activities banks undertake. For example, if underwriting securities generates more income than lending, then a bank that does both may have a higher operating income than a bank that only makes loans. Thus an activity-adjusted ratio of operating income to total assets was constructed as:

\[ \text{Activity adjusted } \pi_j = \alpha_{j1} \pi_j + (1 - \alpha_{j1}) \pi_2; \]

Where \( \pi_j \) is the estimate of operating income to total assets of bank \( j \), and \( \alpha_{j1} \) is the share of “commercial banking activity” of bank \( j \), so that \((1 - \alpha_{j1})\) would be the share of “investment banking” activity.

The impact of the bank’s ownership structure (state-owned, private domestic, or foreign-owned), size (to examine the potential for economies of scale), and diversity of activities undertaken (to examine the potential for economies of scope), was examined, controlling for country-specific banking regulations as well as bank-specific variables (such as capital-adequacy ratios and liquidity ratios). The results from the regression analysis are summarized below.

(Continued)
### BOX 4.5 Impact of Structural Changes on Banking Sector Efficiency: Empirical Analysis (Continued)

<table>
<thead>
<tr>
<th>Dependent Variable: Ratio of Operating Income to Total Assets (activity-adjusted)</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private domestic ownership</td>
<td>0.002</td>
</tr>
<tr>
<td>Foreign ownership</td>
<td>0.007&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Log of total assets (measure of size and economies of scale)</td>
<td>−0.001</td>
</tr>
<tr>
<td>Income diversity (measure of activity diversity and economies of scope)</td>
<td>−0.037&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Deposits/liabilities</td>
<td>0.014</td>
</tr>
<tr>
<td>Equity/assets</td>
<td>0.076&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Growth in total operating income (lagged)</td>
<td>0.013&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Banking policy</td>
<td>0.003</td>
</tr>
<tr>
<td>Fiscal policy</td>
<td>0.017&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Monetary control</td>
<td>0.003&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Price discipline</td>
<td>0.005&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Property rights</td>
<td>0.005</td>
</tr>
<tr>
<td>No. of observations</td>
<td>1398</td>
</tr>
<tr>
<td>R squared</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Notes: Operating income is gross income before operating costs (including personnel expenses) and before taxes. It includes net interest income and income from fees, commissions, and trading income. Given data limitations, it is not possible to distinguish between securities underwriting, brokerage services, and insurance underwriting; instead, a distinction is made simply between lending and non-lending activities based on income statements. The income-diversity index therefore measures the diversification across different sources of income and is calculated as 1−(net interest income–other operating income/total operating income), where net interest income is interest income minus interest expense, and other operating income includes net fee income, net commission income, and net trading income. Income diversity also takes values from 0 to 1, with higher value indicating greater diversification.

a. Significant at the 10% level.
b. Significant at the 5% level.
c. Significant at the 1% level.

The results suggest the following:

**Ownership**

Private domestic banks perform slightly better than state-owned banks, although the difference is not statistically significant. Foreign-owned banks are found to perform much better than state-owned banks and the difference is statistically significant. The results suggest that an increase in foreign ownership of 10 percent would cause performance to improve by about 7 percent. This is a large effect, considering that the average ratio of operating income to total assets in the sample banks is about 4 percent. There has been considerable debate about the impact of foreign banks on the domestic economy (Box 4.4 below), but in general, most empirical work finds that in emerging markets and developing countries, foreign banks tend to perform better than domestic banks and also raise the efficiency of the domestic banking sector.

**Consolidation**

**Size.** The analysis does not point to any benefits from an increase in banks’ asset size; the coefficient is not statistically significant and is negative.

**Diversity of activities.** The analysis also does not point to banks benefiting from economies of scope. The coefficient in income diversification is negative and statistically significant. Thus, the operating income of banks that engage in multiple activities is much lower than it would be if those banks were broken up into financial intermediaries that specialized in the individual activities.

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a. To ensure the comparability of the banks in the sample, it is limited to banks identified by Bankscope as commercial banks, savings banks, and bank holding companies with major commercial banking operations. Data are from Bankscope.

Source: Laeven 2005.
government-led (Appendix Table 4.3). If consolidation is to be accompanied by improvements in performance, it is important to ensure that the banking system in the region operates within a competitive environment.

**Improving the Efficiency and Enhancing the Reach of the Banking Sector**

As noted, banks in the region have yet to see performance benefits from the consolidation that has taken place and from the more diversified fee and non-fee based activities that many are undertaking. It is important to ensure that the policy environment is conducive to competition and provides incentives for banks to undertake activities based on considerations of profitability, rather than simply in order to be in a particular line of business.

Neither have banks in the region fully resumed lending to the corporate sector. As discussed above, this largely reflects the muted demand from that sector, but it also reflects risk aversion on the part of banks. Making more information available, and facilitating information sharing among creditors, as well as strengthening other legal and institutional underpinnings, along with the regulatory and supervisory framework, will be important in facilitating the resumption of lending to creditworthy corporations and in enhancing the provision of bank finance to a wider set of borrowers. It is also important that banks have the incentive to use the capital markets to manage and diversify their risks appropriately.

**Improving efficiency**

In banking as in other sectors of the economy, the degree of competition is generally found to be an important determinant of performance—not only of efficiency in the provision of financial services, but also in the quality of products and the degree of innovation in the sector.

*How competitive are the banking systems in East Asia today?*

The competitiveness of an industry cannot be measured simply by indicators of structure and performance. Although commonly used, market-structure indicators such as the number of institutions, or the Herfindhal or other concentration indexes, are not an adequate guide to competitiveness: for example, if there are sizable economies of scale, the fact that there are only a handful of banks could actually be a reflection of a competitive market in which only a few banks can be profitable. Performance measures such as the size of banking margins, interest spreads, or profitability are similarly inadequate, because they are influenced by factors such as a country’s macroeconomic performance and stability, the form and degree of taxation of financial intermediation, and the quality and availability of information systems.

Rather, testing for the degree of effective competition requires a structural, contestability-based approach whereby the degree of competition is measured with respect to the actual behavior of (marginal) bank conduct. Actual behavior is likely to be related not only to the market structure but also to entry barriers—including barriers on foreign ownership, branching restrictions, and the severity of restrictions on activity in the financial sector—since the latter can limit the degree of intra-industry competition (say from non-bank financial institutions) and exit policies, or in other words, the degree to which the markets are “contestable.”

Based on such an approach, Figure 4.8 shows the degree of competition in East Asian banking. The H statistic provides a measure of the degree of competitiveness in the system, with less than zero indicating a perfect monopoly, less than 1 indicating monopolistic competition, and 1 indicating perfect competition. The average H statistic for the East Asia region is around 0.7, which is close to the worldwide average of 0.72 and somewhat below the high-income OECD countries’ average of 0.8.

While the banking sectors in Hong Kong (China), Korea, and Singapore appear to be very competitive, at the other end of the spectrum the degree of competition currently facing Thai banks is rather low (with an H statistic of around 0.2).

In Hong Kong (China), Korea, and Singapore, markets are contestable in terms of having regulations that facilitate entry and exit (including by foreign banks), although Singapore’s law does not specify levels of solvency that trigger automatic intervention by regulators (Figure 4.9). All three jurisdictions also have relatively low state ownership (and high foreign ownership) in their top ten banks (see Table 4.1).

Next in terms of the competitiveness of the banking system is Malaysia. Malaysia has some restrictions
on foreign bank entry. It does not have cease-and-desist type mechanisms, nor pre-determined levels of solvency that trigger regulators’ automatic intervention. Thus contestability in banking may be said to be lower in Malaysia than in Hong Kong (China), Korea, or Singapore. However, the average state ownership of banks in Malaysia is relatively low, and average foreign ownership in the top ten banks is 26 percent.

The Philippines and Indonesia rank next. The Philippines has some restrictions on entry, and also has the smallest share of average foreign ownership in its top ten banks of any country in the region except China. In Indonesia, the issue appears to be the still-high state ownership in the banking sector, which likely reduces the extent to which banks operate in a competitive environment.

Thailand has entry restrictions and no mechanisms that facilitate exit (either pre-determined levels of solvency deterioration that lead to intervention, or cease-and-desist-type orders). Also, average foreign ownership is relatively low and, perhaps more importantly, state ownership in the banking sector is still very high, probably reducing competitive pressures.

**Approaches for enhancing competitiveness**

To enable East Asian banks to position themselves appropriately in the global arena it is important to ensure that the environment facing banks in the region is a competitive one. The global landscape in banking is changing rapidly, driven by innovation in information technologies, marketing channels, and financial engineering. Banking systems in advanced countries will likely become even more competitive. Banks operating in a competitive environment will have the incentive to ensure that any consolidation or diversification of business activities is based on considerations of efficiency and profitability.

Clearly, the pace at which competitive forces can be enhanced without jeopardizing the stability of the banking systems will partly depend on the progress made in strengthening the institutional underpinnings of sound financial systems: information disclosure, and accounting and auditing practices, as well as on effective implementation of prudential regulation and supervision.

Certain barriers to entry in the banking sector are of course motivated by prudential considerations. Most countries in the world have legal requirements before a bank license can be issued, such as draft by-laws, intended organization chart, financial projections, financial information on the potential largest shareholder, and backgrounds of the intended directors and managers.

But the value of imposing other barriers that primarily tend to limit competition is more debatable. The issue of foreign bank entry in particular has been subject to debate (Box 4.6). The bulk of the evidence suggests that foreign bank entry enhances the efficiency of domestic banking systems, both

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**FIGURE 4.8 Degree of Competition in Banking**

<table>
<thead>
<tr>
<th>Country</th>
<th>Average H statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>0.10</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.20</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.25</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.40</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>0.60</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>1.00</td>
</tr>
<tr>
<td>Average East Asian economies</td>
<td>0.80</td>
</tr>
<tr>
<td>Average High-income OECD economies</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Source: Laeven 2005.

Note: The H statistic is based on the approach of Rosse and Panzar (1977) and Panzar and Rosse (1982 and 1987). This methodology uses bank-level data to investigate the extent to which a change in factor input prices is reflected in the (equilibrium) revenues earned by a specific bank. Under perfect competition, an increase in input prices raises both marginal costs and total revenues by the same amount as the rise in costs. Under a monopoly, an increase in input prices will increase marginal costs and reduce equilibrium output and hence total revenues.
by increasing competition and through positive spillovers, although the extent of these benefits may depend on conditions in the domestic banking sector. In particular it is important to ensure that domestic banks are reasonably healthy prior to large-scale entry by foreign banks. In the region, China, Malaysia, the Philippines, and Thailand still restrict the entry of foreign banks (Appendix Table 4.2). Malaysia’s financial sector master plan envisages lowering entry barriers on foreign banks in its second phase.

Going forward, appropriate competition policy in the region will continue to become more complicated. Financial deregulation, the internationalization of financial services, and technological advances have made product definitions and their associated markets less clear and have blurred the distinction between many classes of suppliers in providing specific forms of financial services.

In view of these developments, competition policy ought to combine three approaches: an institutional approach, which would ensure contestable markets by easing the entry/exit of institutions both domestic and cross-border; a functional approach, which would ensure contestable markets by leveling the playing field across similar financial products (in all dimensions); and a production approach, which would ensure efficiently provided and equally accessible network services—information distribution, clearing and settlement, payments—to take account of any network externalities. So far, countries across the world have focused primarily on the institutional approach, and to a limited extent, the functional approach.

However, even when attempts have been made to level the playing field for financial service providers and across financial services (using the functional approach), regulatory and other differences may continue to create barriers to full competition. Different players may face different standards, for example if regulations require capital for local branches of foreign banks but not for branches of domestic banks. Information requirements may differ by product; for

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**FIGURE 4.9 Regulations Affecting Ease of Entry and Exit**

Restricted on entry and exit affecting contestability

<table>
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<tbody>
<tr>
<td>Indonesia</td>
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</tr>
<tr>
<td>Rep. of Korea</td>
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</tr>
<tr>
<td>Malaysia</td>
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<tr>
<td>Thailand</td>
<td>10</td>
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<td>Hong Kong, China</td>
<td>6</td>
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<td>Singapore</td>
<td>8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>6</td>
</tr>
<tr>
<td>United States</td>
<td>6</td>
</tr>
</tbody>
</table>

**Source:** Barth, Caprio, and Levine 2005.

**Note:** score on restrictions on exit is derived as follows: since the lack of predetermined levels of solvency deterioration that forces automatic action by regulators in the law, and the lack of cease-and-desist-type orders whose infraction leads to automatic imposition of sanctions, reduces the pressures of exit, a score of 1 is given to a country that lacks each of these.
BOX 4.6 Effects of the Entry of Foreign Banks: Cross-Country Findings

Foreign bank entry refers to the process by which foreign banks set up operations in a host country. Desired forms of entry may vary from bank to bank and from country to country, depending on business strategy considerations and the host country's laws and banking structures. Banks may open a representative office, a branch, or a subsidiary, either as a new operation or by acquiring a domestic bank.

Impact on development and efficiency of domestic banks

The entry of foreign banks has generally had favorable effects on the development and efficiency of domestic banks and host-country banking systems (Micco, Panizza, and Yanez 2004; Mian 2003). Foreign banks that expand abroad are typically the “best of the crop” in the country of origin (Focarelli and Pozzolo 2000), and hence they are likely to export improved management and information technology practices and directly enhance the efficiency of the banking sector. Foreign banks exert competitive pressures on domestic banks, often inducing the latter to reassess their business practices, including local lending practices. The result can be better risk management, more competitive pricing, and in general, over the medium run, a more efficient allocation of credit in the financial sector as a whole.

The generally positive effects of the entry of foreign banks have occurred through various channels:

• While foreign banks tend to diminish the profitability of domestic banks, they also tend to improve their efficiency. For instance, a study by Claessens and others (1998) looks at the effects of foreign banks in a sample of 80 developed and developing countries and finds that while foreign banks diminish the profitability of domestic banks, foreign entry also reduces the non-interest income and overall expenses of domestic banks. Controlling for other variables, the high profits of the domestic banks before the increased foreign bank entry tend to reflect a lack of competition and lack of efficient management.

• There is also some evidence of improvement in the quality of financial intermediation. For example, one observes less loan-loss provisioning with more foreign bank entry (Martínez-Peria and Mody 2004).

• The qualitative effects of the entry of foreign banks have by nature been harder to document, but may have been most important. They include the emergence of new, more diverse products, the greater use of new technologies, and spillovers of know how (for example, as people learn skills in foreign banks and subsequently move to jobs in local banks). Foreign banks have also exerted pressure to improve regulation and supervision, and increase transparency, and more generally appear to be a catalyst for reform (Levine 1996 and Dobson 2005).

The effects of foreign bank entry on the development and efficiency of a country’s banking sector appear to depend on some initial conditions. The general level of development and any remaining barriers to entry and activity can hinder the effectiveness of foreign banks (Garcia-Merro, Herrero, and Martínez-Peria 2005; Demirgüç-Kunt, Laeven, and Levine 2004). The proportion of foreign banks in the country’s banking system also matters; where this is small, fewer spillovers seem to arise, suggesting some threshold effect (Claessens and Lee 2003).

It should be noted that these effects of the entry of foreign banks are not necessarily effects on competitiveness, since the studies mentioned above are not tests of formal competition models. Fully specified empirical studies of competitiveness are scarce, and are mostly for single countries. Limited though it is, the cross-country evidence using formal empirical contestability tests suggests that foreign bank ownership is the most consistent fact associated with improved competitiveness in local banking systems (Claessens and Laeven 2004). Next most important in enhancing competition is a relaxation of severe entry and activity restrictions on banks.

Impact on access to finance

How foreign bank entry affects access to banking services is less clear. Generally, it has been found that access is enhanced by the direct provision by foreign banks and indirectly through the pressure that foreign banks put on domestic banks. For example, firms report fewer financing obstacles in countries with more foreign banks (Clarke and others 2001; Beck, Demirgüç-Kunt, and Maksimovic 2004). There is some evidence to the contrary, however: Detragiache, Gupta, and Tressel (2005), for example, find that foreign banks’ presence in low-income countries leads to a reduction in credit and higher operating costs.

Does the entry of foreign banks improve access to finance by small- and medium-size firms (SMEs)? In general, foreign banks appear to allocate greater shares of their lending to commercial and industrial loans, suggesting that they may prefer lending to large companies. One reason why foreign banks may shy away from lending to SMEs is that most banks with an international presence are large. For large banks, organizational diseconomies may make it difficult to provide relationship-lending services to small enterprises while simultaneously serving larger clients’ needs for transaction lend-
BOX 4.6 Effects of the Entry of Foreign Banks: Cross-Country Findings (Continued)

ing and wholesale capital-market services. Substantial evidence from the United States indicates that large (though not necessarily foreign) banks lend relatively less to SMEs than do smaller banks (Berger and Humphrey 1995). However, some recent studies find that lending by foreign banks to small- and medium-size enterprises is growing. This trend is perhaps encouraged by technological advances that both reduce the need for banks to have a physical presence in all geographic areas in which they lend (Petersen and Rajan 2000), and help large foreign banks overcome the diseconomies and difficulties of lending to small borrowers.

Even if, in most developing economies, foreign banks continue to focus on serving large customers, foreign entry might still benefit small borrowers for several reasons. Besides the benefits associated with greater banking efficiency, foreign bank penetration could indirectly improve borrowers’ access to credit through its effect on domestic bank lending. Foreign bank competition for large customers could displace some domestic banks, forcing them to seek new market niches, such as providing credit to small- and medium-size enterprises. A study by Clarke and others (2001) is one of the first to try to capture both the direct and indirect effects of foreign bank entry on access to credit, and is based on a survey of about 3,000 enterprises in 36 developing and transition economies. Controlling for a large range of macroeconomic, institutional, and firm-specific factors, it finds that firms in countries with greater foreign bank penetration tend to view interest rates and access to long-term loans as smaller constraints on operations and growth than do firms in countries with less foreign bank penetration. Moreover, although some evidence suggests that entry by foreign banks benefits large enterprises more than small ones, there is strong evidence that even small enterprises experience a net gain and there is no evidence that they are harmed by foreign entry.

Implications for stability

The entry of foreign banks generally improves the stability of a banking system. There appears to be less risk of financial crises, and banks—foreign as well as domestic—display higher provisioning and fewer nonperforming loans, suggesting better lending (Demirgüç-Kunt, Mín, and Levine 1998; Barth, Caprio, and Levine 2005). There is also evidence of less pro-cyclical lending behavior in the local operations of foreign banks relative to the cross-border operations of foreign banks (Goldberg 2005), and less sensitivity to the risk of financial contagion (Goldberg 2002). There are also some possible negative effects. Franchise value may be reduced, although such reductions are often hard to determine, given the recent entry in many markets (Boyd, De Nicoló, and Smith 2004). There can also be the risk of undiversified home countries’ effects, which occur when home-country macroeconomic shocks affect the foreign banks’ lending in the host countries (Buch, Carstensen, and Schertler 2005). However, the potential negative effects have to be weighed against having an undiversified domestic banking system without foreign entry.

Source: Claessens 2006.

example, securities products may require more information disclosure than pension products, even if these products are otherwise similar. Pension savings may be taxed very differently from other forms of savings, even though they are in many ways equivalent financial instruments.

These are factors that the region will increasingly need to take into account to ensure the efficient provision of financial services. At present, as noted earlier, banks that have a narrow range of activities are more profitable than those offering more diverse services. Global experience suggests that the latter will develop the requisite expertise over time. But it is also important to ensure that other financial institutions can compete on a level playing field in providing fund-management and securities services, so as to provide competition and enhance the efficiency with which banks provide these services.

What would the banking systems in the region look like with greater contestability and competition? To get some indication, one can perhaps look at the experience of the United States, where the banking sector was heavily regulated and has progressively been deregulated over the past 15 years or so. U.S. banks have developed a wide range of business strategies, made possible by the deregulation as well as by advances in information technology and new financial processes. Changes in the policy environment allowed banks to set deposit rates according to market forces, expand into neighboring cities and states, and offer financial products whose provision was previously reserved for non-bank institutions. As a result, commercial banks now compete vigorously with each other as well as with investment banks, securities firms, and insurance companies, and differentiate themselves from each other in size, ge-
graphic scope, organizational structure, product mix, funding sources, service quality, and customer focus. Broadly speaking, two generic banking strategies have emerged. Being large allows a bank to achieve low unit costs through scale economies. Large banks tend to provide more standardized products based on hard information. Small banks offering traditional banking services operate in local markets, develop close relationships with their customers, and provide more customized products (Figure 4.10). Interestingly, on a risk-adjusted basis, profitability does not differ significantly across the two groups. Thus while the large banks enjoy higher returns they also face greater risks; the smaller banks show lower returns but also face lower risks.

To some extent, these strategies correspond to different segments of banking. The two segments face different levels of competition and the number of banks is likely to vary accordingly. Retail banking has a stronger local dimension, with greater entry barriers and switching costs, so that there is still room to exercise some market power—despite the erosion of market power by electronic banking and information technology. Wholesale and investment banking, by contrast, is a global segment with strong competition where only a relatively small number of players can survive. Thus, in principle, while growing competition will likely lead to greater consolidation—with only a handful of banks operating at the regional (and possibly the global) level in the wholesale and investment banking segment—the retail segment is likely to support a relatively large number of banks serving niche markets at the domestic level.

**Broadening access to banking services**

What key policy measures can help to broaden access? Empirical studies have found that the legal and institutional underpinnings discussed in Chapter 3—including the extent and quality of information disclosure and information sharing (credit registries and credit bureaus), creditor rights, and the functioning of the legal system overall—have a strong bearing on the availability of bank finance (Box 4.7).

A key challenge for banks in the region is to move away from the largely relationship-based approach that has characterized their lending in the past, toward a more rule-based approach that is better suited to the needs of growing and increasingly globalizing economies. While relationship-based lending can be useful in simple economies with limited mechanisms for designing and enforcing contracts, the high costs of screening and monitoring under relationship-based lending are likely to limit the access of firms and individuals.

As more banks enter the microfinance business, policymakers also need to consider a range of issues that affect the viability and sustainability of microfinance lending (Box 4.8).

**Ensuring the Stability of the Banking System**

As noted earlier, while the health of banks in the region has strengthened since the crisis, the average ratio of nonperforming loans in the region as a whole remains higher than that in other regions such as Emerging Europe or Latin America. Moreover, there remains considerable variation in portfolio quality and NPL ratios across countries and across banks within countries.

The region has undertaken significant efforts to upgrade prudential regulation and supervision since the crisis. Nonetheless, based on a review of the implementation of the Basel Core Principles for Banking Supervision (BCP), there are several areas in which fewer than 60 percent of the countries are compliant or largely compliant (Figure 4.11):

- **Objectives, autonomy, powers, and resources of supervisors**: BCP 1.2, which deals with the skills,
resources, and independence of the supervisory agency; BCP 1.3, which deals with the legal framework for banking supervision; BCP 1.4, which deals with the enforcement power of supervisors; BCP 1.5, which deals with the legal independence of supervisors; and BCP 1.6, which deals with information sharing among supervisors.

- Licensing and structure: BCP 3, which deals with licensing criteria and process for banks, and BCP 4, which requires supervisors to have the power to reject all significant transfers of ownership in banks.
- Prudential regulations and requirements: BCP 8, which sets out the requirements for evaluating asset quality and the adequacy of loan-loss provisions and reserves; BCP 9, which sets out the rules for identifying the limiting concentrations of exposures to single borrowers or to groups of borrowers; BCP 10, which sets out rules for lending to connected or related parties; BCP 11, which requires banks to have policies for identifying and managing country risks; BCP 12, which requires banks to have systems to measure, monitor, and control market risks; BCP 13, which requires banks to have systems to measure, monitor, and control all other material risks; BCP 14, which calls for banks to have adequate internal control systems; and BCP 15, which sets out rules for the prevention of fraud and money laundering.

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BOX 4.7 Factors Affecting Availability of Bank Finance: Cross-Country Findings

Several empirical studies have looked at the relationship between access to and use of banking services and the business environment and corporate governance. The relationship between indicators of bank outreach (the provision of bank branches and automated teller machines) and measures of financial, institutional, and infrastructure development is explored on a cross-country basis by Beck, Demirgüç-Kunt, and Martínez-Peria (2005). They find that greater outreach by banks is correlated with a country’s level of overall financial development and its level of economic activity, suggesting some economies of scale in banking. Controlling for these factors, greater outreach is associated with the quality of the legal and institutional environment in the country at large, more effective sharing of credit information, and fewer restrictions on banks’ activities (banks may be less likely to expand their branch network if they are restricted to their core business of deposit taking and lending).

Several studies look at the impact of the business environment, corporate governance, and access to finance from the perspective of firms. For example Beck, Demirgüç-Kunt, and Maksimovic (2005) find that financial, legal, and corruption problems particularly affect the growth of small firms. They find that small- and medium-size firms are significantly and negatively affected by—among other factors—high collateral requirements, bank paperwork and bureaucracy, and the need to have special connections if they are to meet their banking requirements successfully. Shortcomings in the legal system also affect the growth of small- and medium-size firms disproportionately, as does corruption.

Love and Mylenko (2003) look at the impact of credit registries on the financing constraints of firms. They find that the existence of private credit registries is associated with lower financing constraints of firms and a larger share of bank financing. They also find that small- and medium-size firms tend to have a larger share of bank financing where private credit registries exist and that a stronger rule of law is associated with more effective private credit registries. They also find some evidence that the presence of a public credit registry benefits younger firms more than older firms. Galindo and Miller (2001) study how the quality of information in the registry affects financing constraints for firms in Latin America. They find that the index of the information coverage in the credit registry is associated with a reduction in the sensitivity of investment to the availability of internal funding, indicating better access to credit.

Finally, Beck and Love (2005) use several indicators to look at the availability of finance to firms—that is, whether firms have access to bank credit to finance working capital or investment, and to a line of credit. Using the latest available firm-level data from a series of investment-climate assessments conducted by the World Bank during 2000–04, they find greater investor protection, greater availability of credit information, and more efficient contract enforcement (fewer procedures mandated by the law, less time needed, and less need for costly court procedures) to be positively associated with the availability of bank credit and overdraft facilities. Also, as in other studies, they find that regulatory burdens and restrictions on banking activity reduce the availability of credit and overdraft facilities while a strong rule of law and control of corruption are positively associated with credit and overdraft availability.

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a. Since this sample is taken only from developing countries, it does not include many of the “best practice” cases, so that several of the indicators that have been found to be statistically significant in other studies with more balanced samples are not found to be so here, because of lack of variation. Even so, most variables turn out to be either significant at conventional levels (at least at the 10 percent confidence level) or close to being significant (15 percent confidence level). The advantage of the sample is that it uses the most recent data.
BOX 4.8 Enhancing the Environment for the Provision of Microfinance by Banks

Enabling regulations

- **Licensing categories.** It is important for countries to have a "small bank" category and thus enable financial institutions including rural banks, credit unions, or other types of finance companies to engage in microfinance. It is also important to "allow" nongovernmental organizations (NGOs) to exist since they can also be important in providing microfinance.
- **Minimum capital requirements.** The social importance of encouraging microfinance provides an argument for fixing lower minimum capital requirements. If the minimum capital requirements are too high, there will few entrants and they will most likely seek wealthier clients, similar to those served by the larger commercial banks. On the other hand, if the minimum capital requirements are too low there will be too many weak entrants. This happened when the Philippines set up a rural bank license, which led to the entry of hundreds of small, weakly capitalized rural banks. The intention was to expand outreach, particularly in the rural areas, but it is not clear whether this has been achieved. Given their weaknesses, these banks have remained quite small, and it is only recently, with substantial technical assistance from donors, that they have begun to grow.
- **Branching restrictions.** Allowing a "small bank" category on a national scale is particularly useful since these entities can then expand into a dynamic market or benefit from economies of scale. Often, as in Indonesia and the Philippines, regulatory authorities license small institutions to operate only in one particular municipality or region, as a prudential measure. Highly localized institutions also run the risk of having a portfolio that lacks sectoral diversification. Moreover, the competition created by allowing the more dynamic and aggressive small banks to move into other regions can also help make these institutions more cost-efficient.
- **Interest-rate caps.** Small loans are costly and legal limits on loan interest rates usually make commercially viable microfinance impossible.

Institutional infrastructure

- Credit information bureaus are important for the banking sector as a whole, and should be as inclusive as possible. As noted earlier, information registries should have positive data and should include small loans. Ideally they should also cover all entities: credit cooperatives, rural banks, nongovernmental organizations, commercial institutions, and government credit programs (which are especially relevant in East Asia).

FIGURE 4.11 Compliance with Basel Core Principles for Banking Supervision

*Note:* the numbers on the radial axis show the percentage of countries that are largely or fully compliant with a particular BCP. Thus for example, on supervisory independence (BCP1.2) 60 percent of the LAP countries were found to be fully or largely compliant and 100 percent of the advanced industrial countries were found to be largely or fully compliant.
• Methods of ongoing supervision: BCP 16, which defines the overall framework for on-site and off-site supervision; BCP 18, which sets out the requirements for off-site supervision; BCP 19, which requires supervisors to conduct on-site examinations; and BCP 20, which requires the conduct of consolidated supervision.

• Remedial measures and exit: BCP 22, which requires supervisors to have and promptly apply adequate remedial measures for banks when banks do not meet prudential requirements or are otherwise threatened.

• Cross-border banking: BCP 23, which requires supervisors to apply global consolidated supervision over internationally active banks; and BCP 24, which requires supervisors to establish contact and exchange information with other supervisors, such as host country authorities, that are involved in international operations.

Of course, the overall incentives and framework for corporate governance—which are determined at least partly by policies and regulations in the broader economy—play a critical role in ensuring the effective implementation of prudential regulations and supervision and of adequate monitoring by the market, and hence in fostering a sound banking sector. For instance, even if their rights are well defined, creditors and shareholders (and other stakeholders such as depositors) will be less motivated to monitor financial institutions when there is a widely held perception that these institutions will ultimately be bailed out by the government. In the same vein, supervisors (even if they have broad supervisory powers) will have fewer incentives to exercise their powers appropriately unless they have legal protection, as provided by the BCPs on the one hand and their own accountability to governing bodies and the public on the other. Indonesia, Korea, Hong Kong (China), Malaysia, and Singapore offer legal protection to supervisors. However, as noted above, the independence and legal protection of supervisors is one area where countries in the region on average are still relatively weak.

Depositors’ incentives to monitor banks are strongly shaped by the existence of a deposit insurance system. Such a system needs to be carefully designed (Box 4.9). By guaranteeing depositors against loss, deposit insurance removes the incentives for depositors to participate in a bank run, but it also removes the incentives for depositors to monitor banks and their risk-taking.

Indonesia, Korea, Malaysia, and Thailand all adopted blanket guarantees on deposits after the financial crisis, but are now rolling back their guarantees in favor of a limited deposit insurance system. At the same time, countries in the region that historically had no deposit insurance have either recently established, or are establishing, limited systems (Table 4.5). Several of their deposit schemes incorporate some of the key elements of good deposit insurance schemes, and Hong Kong (China)’s planned scheme is probably closest to having these features.

Meeting new challenges

It is important that the remaining weaknesses in the implementation of prudential regulations and supervision be addressed promptly, particularly since new challenges are likely to arise.

As noted above, banks in the region are increasingly involved in new areas of business, particularly in retail and consumer finance. As Korea’s experience with credit-card lending during 2000–2 showed, a very rapid increase in a new area of business raises the stakes on the ability of financial institutions to correctly assess credit risks. Many banks in the region still have relatively weak capacity to identify, monitor, and manage risks.

Promoting competition

While enhancing competition in banking will be important from an efficiency perspective, greater competition is also likely to heighten the importance of effective risk management by banks and of supervision by the authorities.

As discussed above, encouraging the entry of foreign banks can be an important means to promote greater competition and contestability. As the presence of foreign-owned banks grows, the complexity of the tasks facing supervisors is likely to increase. The challenges for supervisors include: (1) choosing licensing policy and appropriate tests for managers and owners of complex holding companies or investment funds; (2) effectively monitoring the local establishment of large international banks or complex financial institutions; (3) upgrading their supervisory capacity to oversee complicated financial products of banks; (4) dealing with the issue of support by parent banks in case of difficulties of a
branch or subsidiary in normal situations as well as in times of systemic crisis; (5) handling consolidated supervision in a market that depends heavily on foreign banks; (6) effectively exchanging information with the home supervisors in the case of bank holding companies or other complex financial institutions; (7) dealing with increasing concentration in the banking system by foreign banks; and (8) improving the governance structure of complex international banking groups while, among other things, enhancing the integrity standards in the financial markets. As noted above, consolidated supervision and information exchange among supervisors (including with host-country supervisors) are areas that need strengthening in East Asia.

It may well be that as banking in the region becomes more contestable, greater market-led consolidation will take place in response to the heightened competition, at least in some segments of banking. Across the world, the effects of consolidation for banking sector stability have been somewhat mixed. On the one hand, consolidation can augment the size, market power, and profits of banks, enhance diversification, and create greater incentives for secure banks to avoid imprudent risk-taking. On the other hand, politically connected banks may become more leveraged and take on greater risk, knowing they can rely on policymakers to help when adverse shocks hurt their solvency or profitability. Similarly, large, politically influential banks may shape the policies and regulations affecting banks in general. Cross-country empirical work has found that larger banks take on more risks than smaller banks (though for higher returns) (see, for example, de Nicolo and

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**BOX 4.9 Deposit-Insurance System: Features of Good Design**

Cross-country evidence suggests that the following features enhance market discipline and reduce moral hazard:

- Credibly low coverage limits per account;
- Narrow coverage (e.g., excluding interbank deposits);
- Coinsurance (and alternative private loss-sharing arrangements such as subordinated debt and extended stockholder liability);
- Compulsory membership;
- Ex post funding;
- In the event of a crisis, targeting surviving banks to cover losses (although taxpayers may be asked to assist banks in a truly systemic crisis);
- Private-public joint management.

Limiting coverage in a credible manner ensures that identifiable groups of private individuals—large depositors, subordinated debt holders, or other banks—understand that their funds are inescapably at risk. This exposure to potential loss gives them an incentive to monitor the behavior of both banks and safety-net managers.

Compulsory membership increases the size of the insurance pool and prevents low-risk institutions from opting out of the system. This means that low-risk, well-managed banks can help supervisors to monitor higher-risk, less well-managed competitors.

It is perhaps more difficult to convince countries to have a deposit insurance system with ex post funding and the involvement of the private sector in its design and management. Lack of immediate access to a pool of accumulated liquid reserves threatens to prevent authorities from dealing with insolvent institutions in a timely manner. However, cross-country evidence indicates that in weak institutional environments, the net economic value of deposit insurance reserves is routinely overstated, by failing to account for the implicit liabilities that weak and insolvent clients implicitly shift onto these reserves. Indeed, an overvalued fund tends to intensify moral hazard by leading depositors and competing institutions to ignore evidence of individual bank insolvencies. Even if left unfunded, a country’s deposit insurance scheme could still be given immediate access to a credit line from the national treasury or from reinsurance contracts written with reliable outside insurers. Irrespective of whether net deposit losses are funded ex ante or ex post, it must be made clear that funds to cover losses will come principally from surviving banks. Otherwise, government backup threatens to reduce market discipline and increase fragility. Evidence also shows that involving private parties in managing deposit-insurance arrangements reduces moral hazard and fragility. While private managers can also shirk their duties and even misappropriate funds, stakeholders in any private scheme have strong incentives to monitor managerial actions.

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<table>
<thead>
<tr>
<th>Features</th>
<th>Indonesia</th>
<th>Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
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<tr>
<td>Compulsory or not?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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<tr>
<td>Public/private management</td>
<td>Public</td>
<td>Public</td>
<td>Public/ private</td>
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<td>Sources of deposit</td>
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<td>Supervisory function</td>
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<td>No</td>
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<td>Yes</td>
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<tr>
<td>Institutions covered</td>
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<td>Banks, (including subsidiaries of foreign banks in Malaysia); Islamic banks; finance companies</td>
<td>Universal and commercial banks; rural banks; specialized government banks</td>
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<td>Banks</td>
<td>Banks and finance companies</td>
</tr>
<tr>
<td>Annual premium</td>
<td>Risk-based: 0.1–0.6 percent</td>
<td>0.1–0.3 percent depending on type of institution</td>
<td>0.5 percent</td>
<td>0.2 percent</td>
<td>Risk-based: 0.05 percent for lowest-risk banks- 0.14 percent for highest-risk banks</td>
<td>Risk-based: 0.05 percent for lowest-risk banks- 0.14 percent for highest-risk banks</td>
<td>Risk-based: 0.05 percent for lowest-risk banks- 0.14 percent for highest-risk banks</td>
</tr>
<tr>
<td>Coverage amount per depositor, per institution</td>
<td>Rp 100 million (US$11,200)</td>
<td>Won 20 million (US$48,000)</td>
<td>RM 60,000 (US$15,790)</td>
<td>PHP 250,000 (US$4,600)</td>
<td>Baht 50 million for first year (US$1.3 million); reduced to Baht 1 million by 4th year</td>
<td>HK$100,000 (US$12,800)</td>
<td>S$20,000 (US$12,100)</td>
</tr>
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</table>

Combating money laundering

With progressively greater financial integration, fighting money laundering is likely to become a more complex challenge. As the region liberalizes its financial sector and undergoes rapid financial and economic transformation it also needs to put in place policies to prevent the abuse of an increasing array of financial institutions that have a significant cross-border dimension. Financial deepening and diversification provide more avenues for criminals and money launderers to abuse bank and non-bank financial institutions such as exchange bureaus, wire remittance services, insurers, brokers, and traders. The relative openness of the region’s financial sector and economic structure, and the fact that two of the world’s major financial centers are in the region, makes it even more important for financial institutions in East Asia to meet international regulations against money laundering and the financing of terrorism (AML-CFT), so its diverse investment and trade transactions can be effected in the most efficient and lowest-cost way possible.

Overall, in recent years, countries in the region have made significant progress in their AML-CFT policies and in their capacity to implement them. They are fully cognizant of their vulnerabilities and the very serious negative consequences these might have for the integrity and stability of their financial systems, and they have taken significant steps toward compliance with international standards on AML-CFT. Several of them have enhanced their AML-CFT legal frameworks, set up new institutions (in particular, financial intelligence units), developed AML-CFT supervisory frameworks for financial institutions, and improved coordination between financial regulatory authorities and law-enforcement agencies. Through a web of bilateral memoranda, the region has improved its capacity to participate in international cooperation.

The region is also leading the initiative within the Financial Action Task Force on Money Laundering (FATF) to use AML-CFT as another instrument to combat corruption (Box 4.10).

For financial institutions, the FATF recommendations define four key requirements: (1) undertake customer due diligence (know your customer, monitor business relationships, practice enhanced vigilance toward high-risk customers), (2) keep records, (3) report suspicious transactions, and (4) institute internal controls. Compliance with these standards affects the efficiency of transactions and raises the cost of doing business.

As noted earlier, the region is relatively weak in the implementation of BCP 15, which sets out key criteria on measures for the banking sector to take against money laundering and terrorist financing. Many countries worldwide have the essential legal elements of an AML-CFT regime in place, but a recent review shows considerable weakness in compliance in the financial sector. In countries in East Asia, where AML-CFT systems are quite sophisticated, effectiveness in implementation is impaired by poor coordination among government agencies. Further, lack of skills, training, and resources often hinder the capacity of supervisory authorities to investigate and ensure compliance with AML requirements (for customer due diligence and suspicious transactions reports) and limit the capacity of law-enforcement authorities to prosecute cases. Finally, international cooperation and information exchange—either among administrative authorities or through mutual legal assistance channels—is improving but needs further strengthening.

Financial institutions in East Asia are increasingly adopting risk-based frameworks that accord flexibility and allow measures to be commensurate with the risk of money laundering and financing of terrorism. Using a risk-based approach in the regulatory framework for AML-CFT is consistent with the shift toward risk-based supervisory regimes that would enable these countries to meet the new Basel II standards (see below). The challenge to the region lies in strengthening the supervisory skills needed to assess vulnerabilities and identify risks, so that sanctions and oversight are appropriate and proportionate to these risks.

Adopting the Basel II Capital Adequacy Framework: some supervisory challenges

On June 2004, central bank governors and the heads of bank supervisory authorities in the G-10 countries adopted a new capital adequacy framework commonly known as Basel II and primarily intended for internationally active banks among the G-10 countries (Table 4.6).
Most jurisdictions in East Asia have signaled that they intend to partially or fully adopt Basel II in the medium term. Assessed at the end of 2004, banks’ preparedness for Basel II in the region appeared to vary widely, but had increased significantly over the preceding two years. Effective implementation of the original Basel Core Principles is really a prerequisite for moving to Basel II, given that the elements of Basel II build on and go beyond the BCPs. Indeed, while the motivation for Basel II is to better align capital with risks and allow banks to manage their risks in the long term, not only banks but regulators and supervisors are likely to face major challenges during the transition.

Because Basel II has been developed largely with reference to the experience of G-10 countries, it im-

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**BOX 4.10 Combating Money Laundering and Financing of Terrorism**

Money laundering involves disguising funds obtained from criminal activities and investing them in activities that may or may not be criminal. Financing terrorism concerns mainly the use of funds to support terrorism-related activities regardless of the origin of these funds. As the methods used to channel funds for terrorist purposes are the same as those used by money launderers, AML/CFT systems use a common infrastructure.

In addition to broader macroeconomic considerations (such as distorting prices and competition, and increasing the volatility of capital flows and exchange rates) money laundering can compromise bank soundness. Economic damage can arise not only from direct financial system abuse but also by seriously harming the reputation and integrity of countries’ financial institutions and by undermining investors’ trust in those institutions. Trust underpins the existence and development of financial markets, and the efficient functioning of financial markets depends heavily on the expectation that high professional, legal, and ethical standards will be observed and enforced by financial sector regulators, for both banks and non-bank financial institutions.

In 1990, the Financial Action Task Force on Money Laundering (FATF) issued a set of 40 recommendations that provided a comprehensive plan of action needed to fight money laundering. In 2001, FATF issued eight special recommendations on Combating the Financing of Terrorism. Since then FATF has significantly revised the 40 recommendations and issued a revised methodology and a ninth special recommendation on terrorist financing. The recommendations (FATF+9) cover all the measures that national AML/CFT regimes should incorporate within their legal, criminal justice, and regulatory systems.

An effective AML-CFT system requires an adequate legal and institutional framework and law-enforcement mechanisms, as outlined in the FATF recommendations. The AML-CFT system should include (1) laws that define money-laundering and terrorist-financing offenses and provide for freezing, seizing, and confiscating the proceeds of crime and terrorist funding; (2) laws, regulations, or in certain circumstances, other enforceable means that impose the required obligations on financial institutions and on designated non-financial businesses and professions; (3) an appropriate institutional or administrative framework that provides competent authorities with the necessary duties, powers, and sanctions; and (4) laws and other measures that give a country the ability to provide the widest range of international cooperation.

In addition, the Basel Committee on Banking Supervision, the International Association of Insurance Supervisors, and the International Organization of Securities Commissioners have each incorporated broad supervisory standards and guidelines against money laundering and the financing of terrorism, as part of the standards that their respective industry players are required to observe. These standards are consistent with the FATF+9 recommendations.

The Basel Committee has issued three documents covering anti-money-laundering issues:

- **Statement on Prevention of Criminal Use of the Banking System for the Purpose of Money Laundering.** This essentially covers four principles that should be used by banking institutions: (1) proper customer identification; (2) high ethical standards and compliance with laws and regulations; (3) cooperation with law enforcement authorities; and (4) policies and procedures to be used to adhere to the statement.

- **Core Principles for Banking Supervision.** BCP 15 deals with money laundering by stipulating that bank supervisors must determine that banks have in place adequate policies and procedures, including strict know-your-customer (KYC) rules.

- **Customer Due Diligence for Banks.** This document provides extensive guidance on appropriate standards for banks to use in identifying their customers. It was issued in response to a number of deficiencies noted on a global basis with regard to the KYC procedures. In addition, the standards go beyond the fight against money laundering and are intended to help protect banks’ safety and soundness more broadly.

### TABLE 4.6 Main Features and Key Requirements for the Different Approaches Under Basel II

<table>
<thead>
<tr>
<th>Pillar 1: Capital adequacy</th>
<th>Main features</th>
<th>Key requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit risk 1</strong>&lt;br&gt;Simplified Standardized Approach (SSA)</td>
<td>Limited increase in risk sensitivity compared to Basel I (more risk buckets and risk weights for sovereigns and banks based on risk scores provided by recognized export-credit agencies). Operational risk charge: 15 percent of annual gross income.</td>
<td>Ratings of external credit assessment agencies. Ability and capacity to qualify rating agencies and map agency scores.</td>
</tr>
<tr>
<td><strong>Credit risk 2</strong>&lt;br&gt;Standardized Approach (SA)</td>
<td>More risk buckets than SSA and increased risk sensitivity. Risk weights for asset classes based on ratings of external credit-assessment agencies or export-credit agency scores. Enhanced credit risk mitigation available.</td>
<td>Ability to assess banks’ rating system design. Ability to validate banks’ risk-management and stress-testing systems. Ability to provide supervisory estimates of loss, given default and exposure at default.</td>
</tr>
<tr>
<td><strong>Credit risk 3</strong>&lt;br&gt;Foundation Internal Ratings-based Approach (F-IRB)</td>
<td>Based on risk components: probability of default, loss given default, and maturity. Banks can use own estimates of probability of default and supervisory estimates for other components. Comprehensive risk management requirements (rating system design, internal control environment, etc.). Stress testing required.</td>
<td>Ability to assess banks’ rating system design. Ability to validate banks’ risk-management and stress-testing systems.</td>
</tr>
<tr>
<td><strong>Credit risk 4</strong>&lt;br&gt;Advanced Internal Ratings-based Approach (A-IRB)</td>
<td>Capital requirements determined as in F-IRB. Banks can use own estimates for probability of default, loss given default, exposure at default, and maturity, subject to supervisory validation of systems. Comprehensive risk management requirements (rating system design, internal control environment, etc.). Stress testing required.</td>
<td>Ability to assess banks’ rating system design. Ability to validate banks’ risk-management and stress-testing systems.</td>
</tr>
<tr>
<td><strong>Operational risk 1</strong>&lt;br&gt;Basic Indicator Approach (BIA)</td>
<td>Flat rate of 15 percent of average gross annual income.</td>
<td></td>
</tr>
<tr>
<td><strong>Operational risk 2</strong>&lt;br&gt;Standardized Approach (TSA)</td>
<td>Operational risk charges for each business line, based on average annual income per business line, multiplied by risk factor per business line. Comprehensive risk management requirements.</td>
<td>System to distinguish business lines and supervisory ability for validation of this system. Data on operational risk occurrences and cost.</td>
</tr>
<tr>
<td><strong>Operational risk 3</strong>&lt;br&gt;Advanced Measurement Approach (AMA)</td>
<td>Full reliance on banks’ internal risk-measurement systems, subject to supervisory approval. Comprehensive risk management requirements.</td>
<td>Capacity for supervisory validation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pillar 2: Supervisory review process</th>
<th>Main features</th>
<th>Key requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks have an internal capital-adequacy assessment process and a strategy for maintaining capital level. Supervisors evaluate banks’ internal capital-adequacy systems, their outcomes, and banks’ risk profiles. Supervisors can require higher capital-adequacy levels for their banking system or for individual banks, where appropriate. Early intervention by supervisors. Stress testing and assessment of interest rate risk and concentration risk.</td>
<td>Supervisory ability and capacity to make the necessary assessments. Adequate legal and regulatory framework to take action.</td>
<td></td>
</tr>
</tbody>
</table>

(Continued)
plicitly assumes that a proper banking environment is in place. Countries’ degree of compliance with the BCPs can provide an indication of the extent to which this is the case. For instance, special attention should be paid to the following issues:

- A well developed public infrastructure needs to be in place (for example, an environment that fosters the honoring and enforcement of financial contracts).
- Banks must be able to implement strong internal control systems. A widespread credit-risk culture and sound risk-management practices within the banking sector are also essential.
- Accounting standards used for financial statements must be reliable.
- Supervisory authorities must have adequate resources and independence to fulfill their mission.
- Consolidated supervision must be carried out.\textsuperscript{75}
- Efficient cross-border cooperation between supervisors must be in place, especially to be able to address the numerous home-host issues related to Basel II.

Basel II is not a one size-fits-all regime either for banks or for countries. Many of the Pillar 1 provisions are open to national discretion, while Pillar 2 only sets out broad principles, thereby leaving supervisors a good deal of leeway in its implementation. Most countries will need to adapt the framework to take into account domestic features. This will require considerable planning and training for supervisors, with a likely increased demand for expertise in risk-based supervision and in the management of credit- and operational risks, as well as information-technology systems. Supervisors in the region are already planning to offer training on Basel II issues to nearly 3,500 members of their staff.

Implementing Basel II will also be a major test of supervisors’ independence. Indeed, supervisors are likely to face strong pressure from some banks to move to Basel II or to be allowed to use the advanced approaches, and they will also need to deal with potential conflicts of interest related to their increased involvement in banks’ risk-management processes. Some East Asian supervisors have in the past allowed weak banks to classify assets more leniently than prudence would suggest, and thereby enabled these banks to defer the recognition of losses. Such behavior would undoubtedly compromise the integrity of the Basel II process by distorting its outcomes in terms of capital requirements and altering its incentives in terms of risk management.

Below is a brief review of issues likely to arise in implementing the component parts of Basel II in the region.

\textit{Pillar 1: capital adequacy.} The standardized approach to credit risk is expected to be the preferred approach of most banks in the East Asia region. This is mostly a refinement of the existing Basel I framework coupled with the introduction of a direct relationship between risk weights and the ratings of recognized external credit-rating agencies.

Among the major issues that need to be considered before implementing this approach are those related to the recognition of external credit-rating

\begin{table}[h]
\centering
\caption{Main Features and Key Requirements for the Different Approaches Under Basel II (Continued)}
\begin{tabular}{|c|c|c|}
\hline
Pillar 3: Market discipline & Main features & Key requirements \\
\hline
& Information to be disclosed includes: & Banks’ information systems to produce required breakdowns. \\
& \begin{itemize} \\
& \item Available capital in the group, capital structure, detailed capital requirements for credit, market, and operational risks; \\
& \item Breakdown of asset classification and provisioning; \\
& \item Breakdown of portfolios according to risk buckets and risk components; \\
& \item Credit-risk mitigation methods and exposure covered by these methods; \\
& \item Operational risk; \\
& \item Market risks. \\
& \end{itemize} & Accounting and auditing systems that safeguard accuracy of disclosures. \\
& & Supervisor’s ability to require disclosure, monitor, and verify. \\
\hline
\end{tabular}
\end{table}
agencies and to the risk weights to be applied for the retail portfolio.

With regard to retail assets, capital requirements could decrease significantly, with risk weights reduced from 50 percent to 35 percent for residential mortgages and from 100 percent to 75 percent for other types of retail exposures. These provisions should only be implemented with sufficient caution because:

- Some jurisdictions (including Malaysia and the Philippines) have experienced significant losses on residential mortgages in the past;
- Commercial real-estate lending has frequently led to significant losses in the region; and
- The 75 percent risk weight for credit cards seems low for many East Asian markets, given the severe losses that some, notably Korea, have experienced frequently after a rapid build-up of their exposures.

Korea’s experience with credit-card debt illustrates that:

- Upward adjustments to Basel II weights may in some cases be justified;
- Basel II alone may not be able to address stability issues such as rapid changes in portfolio structures.

Beyond Basel II, it is thus essential that supervisors monitor trends in banking risks and intervene where appropriate.

For countries seeking to apply the internal ratings-based (IRB) approaches, the design of rating systems and the quality of data are clearly key issues, which in many cases will be difficult to solve in the short term. Few banks have yet developed and integrated risk-grading systems into their daily processes, but Basel II requires banks applying IRB to have used rating systems roughly in line with the IRB minimum requirements for at least three years. Data required to implement IRB models are often unavailable, whether because banks have only just started collect-ing them, or because bank consolidations have affected the consistency of historical information.

Pillar 2: supervisory review process. Pillar 2 requires all Basel II banks, including those implementing only the standardized approaches, to have an internal process for assessing capital adequacy. A survey by Ernst & Young (2005) suggests that at the end of 2004 about half the banks in the region were at very early stages of implementing Pillar 2, and that 25 percent had not yet started work on it.

Supervisors will need to monitor and review a bank’s internal rating systems. In this regard, stress testing is an extremely important mechanism for a bank to be able to allocate sufficient capital over the economic cycle. Supervisors will also need to be attuned to risks that are not captured directly in Pillar I ratios (including credit-concentration risk, interest-rate risk in the banking book, and business-cycle effects). Where regulators have concerns that a bank’s underlying risks are not properly addressed or reflected in regulatory ratios, they should exercise their authority to require overall risk-based capital above the Basel II regulatory minimum of 8 percent.76

Generally speaking, Pillar 2 intends to make supervisory practices more transparent—which in turn will promote the legitimacy and credibility of supervisors from the perspective of the institutions that they supervise.

Pillar 3: market discipline. The third Pillar of Basel II establishes rigorous standards for a bank’s disclosure of its risk profile and capital, in order to leverage the ability of market participants to monitor banks and prevent them from taking undue risks. The minimum Pillar 3 disclosure requirements cover the bank’s capital structure and key pieces of information that go into the calculation of its Basel II risk exposure. Pillar 3 also sets forth standards for qualitative disclosures that help explain a bank’s risk measures.

Pillar 3 requires disclosure that goes far beyond current practices in East Asian banks. Its implementation will greatly enhance the transparency of banks’ risk profiles.
The development of the securities markets has been a primary goal of East Asia’s financial policymakers since the crisis. Sizable progress has been made: equity market capitalization has almost tripled for the region as a whole, and the value of bonds outstanding has almost quadrupled, since 1997. But significant challenges remain. This chapter reviews the progress made to date, analyzes the key issues of access and efficiency in the equity and bond markets, and concludes with the main policy challenges that need to be addressed to further develop these markets.

**Developments in East Asian Securities Markets Since the Financial Crisis**

Equity markets—as measured by stock market capitalization—have grown significantly since 1997, although they have yet to recover to pre-crisis levels in Malaysia and Thailand. In the region as a whole, the market has almost tripled since the crisis (Table 5.1).

While stock markets in the region are still considerably smaller than in the United States, United Kingdom, or Germany (and in aggregate still account for only 6 percent of world stock-market capitalization), in relation to the size of domestic economies they compare favorably to the markets of advanced industrial countries. Indeed, stock market capitalization as a percentage of GDP is actually larger in Hong Kong (China), Singapore, or Malaysia than in the United States, the United Kingdom, or Germany.

Starting from a much smaller base, bond markets have grown even more rapidly over the past few years (Table 5.2). In most of the countries in the region, much of the initial impetus to this growth came from bonds issued by governments, largely to restructure banking systems following the crisis.

At this point, several important questions arise, which are discussed in what follows:

- First, how broadly accessible are the securities markets in the region for firms seeking to raise funds and for investors seeking to invest?
Second, how liquid and efficient are they? Efficient markets allow the prices of securities to reflect their economic fundamentals, and to adjust quickly and accurately to new material information. Efficiency is key from the perspective of exercising governance over firms and of allocating resources appropriately. Moreover, there is a two-way interaction between the size of securities markets and their liquidity: not only do larger markets tend to be more liquid, but more liquid markets tend to attract more investors and firms.

Third, in light of the above, what are the policy priorities in further developing the securities markets in the region?

### TABLE 5.1 Size of Equity Markets (Market Capitalization)

<table>
<thead>
<tr>
<th>Economy/region</th>
<th>1997</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US$ billions</td>
<td>% of GDP</td>
</tr>
<tr>
<td>China</td>
<td>101.4</td>
<td>11.2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>29.1</td>
<td>12.2</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>41.9</td>
<td>8.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>93.2</td>
<td>93.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>31.2</td>
<td>37.7</td>
</tr>
<tr>
<td>Thailand</td>
<td>22.8</td>
<td>15.1</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>413.3</td>
<td>234.4</td>
</tr>
<tr>
<td>Singapore</td>
<td>106.3</td>
<td>110.8</td>
</tr>
<tr>
<td>East Asia region</td>
<td>839.1</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

**Memorandum:**

Japan 2,160.6 50.2 3,557.7 76.2
Germany 825.2 39.1 2,865.2 44.0
United Kingdom 1,996.2 150.4 1,194.5 133.8
United States 10,730.6 130.1 16,323.5 139.9
Bolivia 0.3 4.1 1.3 16.3
Greece 34.2 28.2 121.9 61.6
Lithuania 1.7 17.2 3.5 19.3
Mexico 157.0 39.1 122.5 19.6
Turkey 61.1 32.3 68.4 28.4
Ukraine 3.7 7.3 4.3 8.7

**Sources:** WFE, World Bank staff calculations.

**Note:** n.a. = not applicable.

### TABLE 5.2 Size of Bond Markets (Domestic Bonds Outstanding)

<table>
<thead>
<tr>
<th>Economy/region</th>
<th>1997</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US$ billions</td>
<td>% of GDP</td>
</tr>
<tr>
<td>China</td>
<td>116.4</td>
<td>12.9</td>
</tr>
<tr>
<td>Indonesia</td>
<td>4.5</td>
<td>1.9</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>130.3</td>
<td>25.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>57.0</td>
<td>57.0</td>
</tr>
<tr>
<td>Philippines</td>
<td>18.5</td>
<td>22.3</td>
</tr>
<tr>
<td>Thailand</td>
<td>10.7</td>
<td>7.1</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>45.8</td>
<td>25.9</td>
</tr>
<tr>
<td>Singapore</td>
<td>23.7</td>
<td>24.7</td>
</tr>
<tr>
<td>EA region</td>
<td>401.2</td>
<td>n.a.</td>
</tr>
<tr>
<td>Japan</td>
<td>4,433.6</td>
<td>97.6</td>
</tr>
<tr>
<td>Germany</td>
<td>1,739.7</td>
<td>44.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>777.7</td>
<td>23.5</td>
</tr>
<tr>
<td>United States</td>
<td>12,656.9</td>
<td>62.9</td>
</tr>
</tbody>
</table>

**Sources:** ADB Asian Bonds Online and World Bank staff calculations.

**Note:** n.a. = not applicable.
Access to securities markets

How important are stock markets in the region from the perspective of firms? While it is difficult to obtain a full picture, indicators suggest that the role of equity markets varies significantly across the region—with those in Hong Kong (China), Republic of Korea, Malaysia, and Singapore playing an important role, and those in Indonesia, the Philippines, and to a lesser extent Thailand, having the potential to play a much more important role than they do now.

East Asia compares very favorably to other developing regions such as Latin America and Emerging Europe in the amounts of capital raised through initial public offerings (IPOs). At end-2004, almost US$32 billion was raised in East Asian primary markets (contributing to a total of US$66.6 billion in equity). This compares to US$4.6 billion raised on the primary markets in Emerging Europe and US$0.66 billion on those in Latin America. However, the amount of equity raised in 2004 in the Philippines was only US$38 million, of which only US$18 million came from IPOs (Table 5.3).

The number of firms listed on stock exchanges is relatively small, particularly in Thailand, Indonesia, and the Philippines (Figure 5.1).

In some East Asian countries much of the stock market is accounted for by a relatively few large firms. Standard concentration ratios—the proportion of stock market capitalization or trading accounted for by, say, a country’s top ten firms—vary worldwide (those in the US and Canada are among the lowest), but they appear to be especially high in the Philippines and Indonesia. The Herfindahl index (Table 5.3) points to the same finding.

In a few countries in the region, a sizable proportion of shares remains inaccessible to cross-border investors. As of end-2004, foreign investors did not have access to 42 percent of the stock market in the Philippines, 41 percent in China, and 36 percent in Thailand (Figure 5.2).

### TABLE 5.3 Indicators of Access to Stock Markets for Firms

<table>
<thead>
<tr>
<th>Economy</th>
<th>Equity raised (US$ billions)</th>
<th>Herfindhal index</th>
<th>Top 10 concentration ratio (in market capitalization)</th>
<th>Top 10 concentration ratio (in trading)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>Secondary</td>
<td>Total</td>
<td>Percent</td>
</tr>
<tr>
<td>China</td>
<td>4.3</td>
<td>3.6</td>
<td>7.9</td>
<td>0.0142</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.2</td>
<td>0.5</td>
<td>0.7</td>
<td>0.0101</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>11.0</td>
<td>3.9</td>
<td>14.9</td>
<td>0.0513</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.9</td>
<td>1.1</td>
<td>1.9</td>
<td>0.0207</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1249</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.0</td>
<td>1.3</td>
<td>2.3</td>
<td>0.0493</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>12.5</td>
<td>23.7</td>
<td>36.1</td>
<td>0.0464</td>
</tr>
<tr>
<td>Singapore</td>
<td>2.1</td>
<td>0.7</td>
<td>2.8</td>
<td>0.0404</td>
</tr>
<tr>
<td>Memorandum:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>0.3</td>
<td>31.1</td>
<td>31.3</td>
<td>0.0125</td>
</tr>
<tr>
<td>Germany</td>
<td>0.0</td>
<td>2.5</td>
<td>2.5</td>
<td>0.0487</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>13.8</td>
<td>18.7</td>
<td>32.5</td>
<td>0.2158</td>
</tr>
<tr>
<td>Canada</td>
<td>12.2</td>
<td>20.6</td>
<td>32.8</td>
<td>0.0159</td>
</tr>
<tr>
<td>United States (NYSE)</td>
<td>70.3</td>
<td>93.4</td>
<td>163.7</td>
<td>0.0034</td>
</tr>
<tr>
<td>Chile</td>
<td>0.3</td>
<td>0.9</td>
<td>1.2</td>
<td>0.0551</td>
</tr>
<tr>
<td>Greece</td>
<td>0.2</td>
<td>1.6</td>
<td>1.8</td>
<td>0.2280</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.2</td>
<td>0.8</td>
<td>1.0</td>
<td>0.0581</td>
</tr>
<tr>
<td>Peru</td>
<td>0.0</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1040</td>
</tr>
<tr>
<td>Spain</td>
<td>2.6</td>
<td>5.2</td>
<td>7.8</td>
<td>0.0648</td>
</tr>
<tr>
<td>Turkey</td>
<td>1.7</td>
<td>0.8</td>
<td>2.5</td>
<td>0.0460</td>
</tr>
</tbody>
</table>

Source: WFE, World Bank Financial Sector Development Indicators (FSDI).

Notes: The Herfindhal index measures the statistical distribution of the market value of stocks outside the top ten firms. It is defined as the sum of squares of the market shares of each individual firm and ranges from 0 (competitive or equally distributed) to 1 (monopolistic or dominated by one firm).
In East Asian bond markets, limited access to finance by corporations is an issue across a broad range of countries. As mentioned earlier, much of the growth in bond markets (more than 50 percent of the growth during 1997–2004 in all economies in the region except Hong Kong, China and Korea) has been on account of bonds issued by governments. Although in several countries the corporate bond market has accounted for a reasonable proportion of the growth, in most countries it remains quite small as a proportion of total bonds outstanding (Table 5.4).

Indeed, even in Malaysia and Korea—where the bond market is much better diversified among government, corporate, and financial institutions than in the region on average—the issuers of bonds are concentrated at the high end of the credit-quality spectrum. In Malaysia, about 40 percent of the market comes from issuers with local ratings of triple A and another 40 percent from issuers with double A ratings. In Korea, some 80 percent of the bonds issued are single A or above.

The fact that most of the bond markets in the region are dominated by high-quality borrowers is evident from the large proportion of quasi-government issuance. For instance, although the issuers represented in the HSBC Local-Currency Index include non-government issuers, the latter are all quasi-government institutions. Quasi-government issuers are likely to borrow with government guarantees, whether explicit or implicit. Hence they are likely to obtain the highest-quality credit available domestically (Jiang and McCauley 2004).
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Government</td>
<td>Corporate</td>
<td>Financial institutions</td>
</tr>
<tr>
<td>China</td>
<td>7.5</td>
<td>0.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.4</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>4.9</td>
<td>10.3</td>
<td>10.0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>19.4</td>
<td>20.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>22.3</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>0.2</td>
<td>6.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>7.4</td>
<td>18.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Singapore</td>
<td>13.6</td>
<td>11.2</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Sources: ADB, BIS, and country sources.
In bond markets as in equity markets, the number of corporate foreign issuers is still small, at zero percent of total corporate bond issuance in China; 0.1 percent in Korea; 0.2 percent in Indonesia, the Philippines, and Thailand; and 0.4 percent in Malaysia. Only in Hong Kong (China) and Singapore—the two financial centers—is the proportion of foreign issuers high, at 36 percent of total corporate issues in Singapore and 56 percent in Hong Kong (China).

**Liquidity and efficiency**

Limited liquidity in the securities markets is a key challenge facing most countries in the region. An illiquid market will not be efficient because new information cannot be promptly reflected in transactions. Moreover, the contribution that stock markets make to economic growth is through liquidity.

**Equity markets**

Low liquidity in equity markets is a particular problem in Indonesia and the Philippines, and to some extent, in Malaysia (Table 5.5). In the Philippines, the turnover ratio is as low as 14 percent—only one sixtieth of NASDAQ, the most actively traded securities market in the world.

Liquidity, or its lack, will be reflected in, and affected by, the availability of information with which to price securities accurately, by transaction costs, and by the size and heterogeneity of the investor base (a diversity of investors with different risk appetites makes a divergence of views more likely and fosters trading).

Poor information disclosure affects the efficiency of a market directly, because if information disclosure is poor, prices will not reflect fundamentals. It also affects efficiency indirectly, through liquidity, because a market with poor information is likely to exhibit higher price volatility and discourage trading and price discovery.

Transaction costs comprise both the explicit costs of trading—such as commissions, settlement fees, and taxes—and the implicit costs, which represent the opportunity costs of delaying or not executing trades.

### Table 5.5 Liquidity in Equity Markets, 2004

<table>
<thead>
<tr>
<th>Economy</th>
<th>Turnover ratio</th>
<th>Ratio of value traded to GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>87.0</td>
<td>45.4</td>
</tr>
<tr>
<td>Indonesia</td>
<td>44.9</td>
<td>10.7</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>147.2</td>
<td>94.0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>33.8</td>
<td>50.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>14.3</td>
<td>4.2</td>
</tr>
<tr>
<td>Thailand</td>
<td>110.8</td>
<td>66.7</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>57.7</td>
<td>269.3</td>
</tr>
<tr>
<td>Singapore</td>
<td>60.8</td>
<td>76.1</td>
</tr>
<tr>
<td><strong>Memorandum:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>97.1</td>
<td>74.2</td>
</tr>
<tr>
<td>Canada</td>
<td>66.2</td>
<td>66.7</td>
</tr>
<tr>
<td>France</td>
<td></td>
<td>65.5</td>
</tr>
<tr>
<td>Germany</td>
<td>133.8</td>
<td>51.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>116.6</td>
<td>173.2</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NASDAQ</td>
<td>249.5</td>
<td></td>
</tr>
<tr>
<td>NYSE</td>
<td>89.8</td>
<td>165.9</td>
</tr>
<tr>
<td>Bolivia</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Georgia</td>
<td>12.9</td>
<td>0.5</td>
</tr>
<tr>
<td>Greece</td>
<td>37.5</td>
<td>21.4</td>
</tr>
<tr>
<td>Lithuania</td>
<td>9.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Mexico</td>
<td>29.1</td>
<td>6.3</td>
</tr>
<tr>
<td>Turkey</td>
<td>176.9</td>
<td>48.8</td>
</tr>
</tbody>
</table>

**Sources:** World Bank FSDI and WDI.

**Notes:** The table shows two standard measures of liquidity in the equity markets—the turnover ratio (or the value of stock trading relative to the size of the market), and the ratio of value traded to GDP (or the value of stock trading relative to the size of the economy). These two measures can give substantially different impressions of liquidity: for example, a small but liquid market will have a high turnover but low value traded relative to the size of the economy. Another major difference is that the value traded embodies a price effect: value traded can increase, without a rise in the number of transactions or a fall in transactions costs, if there is an increase in the price of shares traded. The turnover ratio is not affected in this manner because prices enter both the numerator and denominator.
executing a trade. A market with high transaction costs will see less trading and have fewer price movements in response to relevant news and therefore be less liquid and less efficient. Trading costs are quite high in the equity markets of most countries in the region, particularly in the Philippines (Table 5.6).

The implicit costs of trading are of course difficult to measure. One approach, which in effect captures both explicit and implicit transaction costs, is to measure the number of zero-return day trading days, controlling for general market conditions. Securities or securities markets with high transaction costs will have less frequent price movements, and more zero-return days, than securities with low transaction costs.84

Figure 5.3 shows a measure of efficiency that captures both transaction costs and the quality of information disclosure.85 The composite index combines an index of the zero-return or stale-trading days, to represent transaction costs, and an index of stock market synchronicity (that is, co-movement among individual stock returns), to represent the quality of information disclosure. High synchronicity indicates that the returns on individual stocks are not providing much firm-specific information; as noted, in an efficient market, stock prices should reflect information about firms’ fundamentals, and hence the returns on individual stocks should not be highly correlated with the returns on the market portfolio as a whole.86

Korea, Hong Kong (China), Malaysia, and Singapore have the most efficient markets in the region—although Korea ranks in the third-highest quartile and the remainder rank only in the median range of a global sample of 85 economies. In the bottom quartile are Thailand, Indonesia, the Philippines, and China.

In general, East Asia’s securities markets are relatively stable compared with those of other regions. (High volatility and instability of the equity markets can also discourage trading and affect liquidity and efficiency.) Figure 5.4 shows a composite indicator that captures two dimensions of stability: volatility, measured by the standard deviation of stock market returns over three years, and the skewness of returns, which measures the extent to which markets are more likely to deliver large negative returns.87

Among a sample of 100 economies worldwide, Singapore falls in the highest (most stable) quart-

<table>
<thead>
<tr>
<th>Economy averages</th>
<th>Price (US$)</th>
<th>Commissions (basis points)</th>
<th>Fees (basis points)</th>
<th>Market impact (basis points)</th>
<th>Total (basis points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>0.3</td>
<td>47.7</td>
<td>10.6</td>
<td>9.9</td>
<td>68.1</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>34.3</td>
<td>29.3</td>
<td>12.4</td>
<td>19.2</td>
<td>60.9</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.6</td>
<td>34.2</td>
<td>6.1</td>
<td>15.7</td>
<td>55.9</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.4</td>
<td>48.5</td>
<td>34.4</td>
<td>11.3</td>
<td>94.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.0</td>
<td>43.7</td>
<td>1.8</td>
<td>11.4</td>
<td>56.9</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>1.5</td>
<td>22.3</td>
<td>10.7</td>
<td>11.3</td>
<td>44.3</td>
</tr>
<tr>
<td>Singapore</td>
<td>3.1</td>
<td>25.7</td>
<td>2.0</td>
<td>13.8</td>
<td>14.5</td>
</tr>
</tbody>
</table>

Memorandum:

<table>
<thead>
<tr>
<th>Economy averages</th>
<th>Price (US$)</th>
<th>Commissions (basis points)</th>
<th>Fees (basis points)</th>
<th>Market impact (basis points)</th>
<th>Total (basis points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>14.7</td>
<td>12.9</td>
<td>0.3</td>
<td>6.3</td>
<td>19.5</td>
</tr>
<tr>
<td>Canada</td>
<td>17.5</td>
<td>20.3</td>
<td>0.2</td>
<td>6.5</td>
<td>27.0</td>
</tr>
<tr>
<td>France</td>
<td>31.0</td>
<td>17.9</td>
<td>0.4</td>
<td>7.7</td>
<td>36.0</td>
</tr>
<tr>
<td>Germany</td>
<td>33.8</td>
<td>17.6</td>
<td>0.6</td>
<td>14.1</td>
<td>32.3</td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buys</td>
<td>5.3</td>
<td>14.2</td>
<td>49.8</td>
<td>7.4</td>
<td>71.4</td>
</tr>
<tr>
<td>Sells</td>
<td>5.2</td>
<td>13.4</td>
<td>0.8</td>
<td>13.3</td>
<td>27.5</td>
</tr>
<tr>
<td>United States (NYSE)</td>
<td>25.0</td>
<td>18.2</td>
<td>0.3</td>
<td>7.8</td>
<td>26.3</td>
</tr>
<tr>
<td>Chile</td>
<td>0.7</td>
<td>29.1</td>
<td>10.2</td>
<td>15.7</td>
<td>55.0</td>
</tr>
<tr>
<td>Greece</td>
<td>12.9</td>
<td>28.7</td>
<td>19.2</td>
<td>10.9</td>
<td>58.8</td>
</tr>
<tr>
<td>Mexico</td>
<td>2.1</td>
<td>26.3</td>
<td>0.1</td>
<td>8.2</td>
<td>34.6</td>
</tr>
<tr>
<td>Peru</td>
<td>3.3</td>
<td>20.5</td>
<td>0.5</td>
<td>25.2</td>
<td>46.2</td>
</tr>
<tr>
<td>Spain</td>
<td>14.1</td>
<td>17.5</td>
<td>0.5</td>
<td>11.8</td>
<td>29.7</td>
</tr>
<tr>
<td>Turkey</td>
<td>0.0</td>
<td>31.4</td>
<td>2.7</td>
<td>20.6</td>
<td>54.7</td>
</tr>
</tbody>
</table>

tile, followed by Hong Kong (China) and Malaysia in the second-highest quartile. Indonesia, the Philippines, and Thailand fall in the bottom quartile, as does Korea. Cross-country analysis suggests that inadequate disclosure of information can make it more likely that an equity market will be unstable and deliver large negative returns. Hence, continued improvements in disclosure should help to make the region’s equity markets more stable.

FIGURE 5.4 Equity Market Stability

Source: World Bank FSDI.
Note: The stability indicator is a composite indicator, based on measures of volatility and the skewness of returns—that is, the extent to which markets are more likely to deliver large negative returns.
**Bond markets**

Lack of liquidity is an even greater problem in East Asia’s bond markets than in its equity markets. The region’s bond markets overall are much less liquid than those of advanced industrial countries (Table 5.7). And, not surprisingly, liquidity is even more limited in the corporate bond market. Corporate bonds are generally much smaller than government bonds, and this contributes to illiquidity. Moreover, because they vary in coupon rates and maturity, bonds issued by the same issuer may not be substitutable.

**Deepening the Securities Markets**

In East Asia the key reason for the small corporate bond markets is the lack of liquidity in secondary markets. A lack of liquidity in secondary markets matters not only for efficiency but also for the overall size of the market, because there is a two-way interaction between the size of the primary market and liquidity in the secondary market. Investors are generally willing to invest in securities only if there is enough liquidity for them to sell and exit easily when needed. And, if liquidity is limited and price discovery does not function well, the investors that do participate will generally demand a higher interest rate or return to compensate for the low liquidity, and this, in turn, may further deter companies from listing on the stock exchange or issuing bonds. Thus, as discussed in the first part of this section, to enhance the efficiency of East Asian securities markets, policymakers will need to address the factors that affect liquidity.

They will also need to encourage the development of more diverse instruments to address the needs of both investors and issuers. As noted in Chapter 4, most countries in the region allow banks to conduct investment banking and brokerage business. In a competitive environment, this could encourage banks to speed their development of such instruments, contributing to the development of the securities markets while improving their own profitability. Further, the adoption of Basel II could make banks more interested in providing such instruments to economize on their capital, rather than just extending loans or warehousing them. And

<table>
<thead>
<tr>
<th>TABLE 5.7 Liquidity in Bond Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>China</td>
</tr>
<tr>
<td>Indonesia</td>
</tr>
<tr>
<td>Rep. of Korea</td>
</tr>
<tr>
<td>Malaysia</td>
</tr>
<tr>
<td>Philippines</td>
</tr>
<tr>
<td>Thailand</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
</tr>
<tr>
<td>Singapore</td>
</tr>
<tr>
<td>Japan</td>
</tr>
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<td>Canada</td>
</tr>
<tr>
<td>Germany</td>
</tr>
<tr>
<td>United Kingdom</td>
</tr>
<tr>
<td>United States</td>
</tr>
</tbody>
</table>


Notes:

n.a. = not applicable.

<sup>a</sup> The bid-ask spread generally provides a good indication of liquidity if the outstanding bond issuance is large and if there are an adequate number of well-capitalized bond dealers. It may be a less accurate measure of liquidity for some of the markets in East Asia. In general, given that the majority of bonds are traded over the counter, trading data are difficult to obtain and hard to compare across countries.
for smaller corporations, mechanisms such as securitization can enhance access to securities markets.

**Improving the liquidity and efficiency of securities markets**

The liquidity in secondary markets and, ultimately, the efficiency of securities markets overall, is affected by the three factors that were noted above: the size and the diversity of the investor base, the availability of timely and relevant information for investors to accurately price securities, and the transactions costs involved in trading. The shaded ovals in Figure 5.5 indicate important areas that could benefit from further strengthening.

**Improving information to price securities accurately**

The availability of accurate and timely information for investors is a key element in ensuring efficiency in securities markets. Based on accurate and timely flows of information, liquidity can be generated by the activity of investors who disagree about fundamentals, facilitating the process of price discovery. As discussed above, the continued strengthening of corporate governance and disclosure will be fundamental to the further development of the securities markets.

For bond markets, several other infrastructural components need attention to facilitate accurate pricing.

**Benchmarking.** First, there is the need to be able to price corporate bonds off a “risk-free” benchmark (or index interest rate). The most common benchmark is the interest rate of a government bond. To be a valid comparator, the price of a government bond must be truly driven by supply and demand. For this to happen in China, for instance, the authorities would need to move away from price-controlled

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**FIGURE 5.5 Factors Affecting the Efficiency of Securities Markets**

<table>
<thead>
<tr>
<th>EFFICIENCY OF SECURITIES MARKETS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquidity</strong></td>
</tr>
<tr>
<td><strong>For bonds:</strong></td>
</tr>
<tr>
<td>• benchmarks</td>
</tr>
<tr>
<td>• credit rating</td>
</tr>
<tr>
<td>• PDs, intermediaries</td>
</tr>
<tr>
<td><strong>A</strong></td>
</tr>
<tr>
<td><strong>Information to price accurately</strong></td>
</tr>
<tr>
<td>• shareholder rights</td>
</tr>
<tr>
<td>• creditor rights</td>
</tr>
<tr>
<td>• disclosure standards &amp; practice</td>
</tr>
<tr>
<td>• accounting and auditing</td>
</tr>
<tr>
<td><strong>B</strong></td>
</tr>
<tr>
<td><strong>Transaction costs (explicit—taxes, commission, fees—and implicit)</strong></td>
</tr>
<tr>
<td><strong>C</strong></td>
</tr>
<tr>
<td><strong>Variety of investor bases</strong></td>
</tr>
<tr>
<td><strong>Corporate governance</strong></td>
</tr>
<tr>
<td>• shareholder rights</td>
</tr>
<tr>
<td>• creditor rights</td>
</tr>
<tr>
<td>• disclosure standards &amp; practice</td>
</tr>
<tr>
<td>• accounting and auditing</td>
</tr>
<tr>
<td><strong>Market infrastructure &amp; mechanisms</strong></td>
</tr>
<tr>
<td>• repo markets</td>
</tr>
<tr>
<td>• securities lending</td>
</tr>
<tr>
<td>• margin trading including short selling</td>
</tr>
<tr>
<td>• derivatives markets</td>
</tr>
</tbody>
</table>

Source: Author.

*Note: shaded ovals indicate important areas that could benefit from further strengthening.*
The benchmark bond issues must also be liquid, and issues of benchmark bonds must be appropriately spaced along the maturity spectrum to enable investors to accurately price instruments whose maturity is somewhere between the benchmark rates. Ideally, there should be liquid benchmark bond lines at key points along the yield curve, for example at one year, two years, five years, and ten years (although the precise maturities may vary according to individual markets), and each benchmark maturity should have a volume of bonds on issue that is sufficiently large, relative to the market’s total size and the market’s average transaction size. Once established, the length of a yield curve should be maintained by issuing a new long-dated line as appropriate. For example, if the length of the yield curve is around ten years, a new ten- to eleven-year maturity should be issued in time for its liquidity to be built up before the term to maturity of the existing ten-year benchmark shortens too much.

East Asian economies have attempted to build benchmark yield curves in government bonds since 1998. Hong Kong (China) and, even more so, Singapore, have succeeded in developing both short and intermediate yield curves (for up to 15 years). In Korea, Malaysia, and Thailand, liquidity is limited in issues with maturities of more than five years. In Korea, whose government does not issue short-term treasury bills, a short-term benchmark is missing. While Indonesia has made progress in introducing government benchmarks, the bond market is still young, and will likely take some time to produce a true market yield curve. Finally, while the Philippines has a yield curve for sovereign bonds, in practice the market is very illiquid and most of the trading takes place in bonds with maturities of less than one year. China has no benchmark yield curve yet.

Although ultimately the market decides whether an issue is to be treated as a benchmark, governments have a variety of ways to help develop such issues. The first of these is to consolidate and standardize the government’s own issues. While having a variety of debt instruments is beneficial, so as to cater to the preferences of different investors, too much variety can fragment the market. Fragmentation hinders substitutability among bonds, reduces the size and trading of benchmark issues, and disperses market liquidity over many issues. Many forms of fragmentation can arise from the existence of different bonds, including coupon rates, maturities, issue sizes, and frequencies and whether an issue is “out-of-market” or not.

Second, governments can use re-opening and buyback operations as ways to increase the fungibility of benchmark issues. Re-opening—issuing the same bond with the same maturity and coupon on more than one occasion—reduces the need to open a different issue and gradually builds up the outstanding volume to the desired benchmark level. Re-opening benchmark lines, however, makes it more likely that issuance will be into a benchmark with an “out-of-market” coupon, which may be less desirable for investors. Buybacks—repurchasing government bonds before they mature—can be used in conjunction with re-openings to eliminate bonds that are not being actively traded.

Third, an issuer can act in the secondary market to improve the liquidity of the benchmark yield curve. Thus policymakers may facilitate switches by dealers who are seeking to trade in more liquid issues, reducing problems relating to the fragmentation of issues. In China, for instance, instead of opening a new bond at every issue, tranches or slices of existing bonds could be issued instead at key maturities (three, five, ten, fifteen, and twenty years), thereby building up large liquid bond issues that bond holders could more easily sell in the secondary market. China’s Ministry of Finance could, moreover, examine the scope for switching from existing bonds into the new benchmark issues, in order to increase the amount outstanding in each benchmark issue. The Philippines has recently announced a consolidation program in which holders of two- to seven-year Philippine Treasury bonds are invited to exchange them for an inaugural series of domestic benchmark bonds.

Fourth, the interest of intermediaries and investors in a market, and hence market liquidity, is likely to be enhanced when the government’s general strategy as an issuer is known and when changes in that strategy are communicated in a timely fashion. Clearly it would not be advisable to announce all issuance details well in advance, because this would reduce the government’s flexibility in responding to changing market conditions and the corresponding changes in the preferences of intermediaries and investors. But pre-announcing an intent to issue bonds allows market participants to formulate their strategies and construct their portfolios, and thus is likely to increase market interest in the bonds. The information communicated to the market may include an indicative
issuance schedule, target issuance volumes for bond maturities, and intervals between benchmark lines.

Fifth, in general, there is an absence of market makers to foster liquidity in the bond markets in the region. The establishment of a primary-dealer system for government securities can help to foster liquidity in a market for government bonds and thus also help to establish a benchmark yield curve. Many countries use such systems. The advantage of having a dedicated group of market makers is that, in return for certain privileges (such as exclusive rights or advantages in bidding at auctions, exclusive access to blind inter-dealer screens), they can ensure the success of the auctions in the primary market and promote liquidity in the secondary market by providing two-way quotes. For primary-dealer systems to perform effectively, they need to be well capitalized, to be staffed with professionals experienced in fixed-income and risk-management products, and to practice good governance.

The primary-dealer systems in Hong Kong (China) and Singapore function well. Korea’s system is fragmented as there are two sets of dealers: well-capitalized financial institutions that are used by the Bank of Korea to conduct monetary operations, and a larger group of dealers that auction government securities and participate in secondary markets. Malaysia has recently taken steps to improve the functioning of its primary-dealer system (Box 5.1). In Indonesia and Thailand, primary dealers are not required to give two-way quotes, and this somewhat reduces their impact in enhancing liquidity.

**BOX 5.1 Measures to Enhance Liquidity in the Domestic Bond Market in Malaysia**

In January 2005, Bank Negara Malaysia (BNM) announced several important measures to foster the development of a more liquid secondary market to facilitate the price-discovery process:

- The active use of repurchase agreements (repos) as a monetary policy instrument;
- The introduction of the Institutional Securities Custodian Program (ISCAP) to enable the borrowing and lending of securities; and
- Securities lending facility for principal dealers.

**Use of repurchase agreements**

To further develop the repo market, BNM has started using repo operations as one of its monetary policy instruments to manage liquidity in the banking system. Its repo operations seek to (1) encourage market participants to actively use repos as an alternative funding instrument; (2) enhance the flexibility for market participants to use these securities in managing settlement risks and trading strategies; and (3) further strengthen the banking industry’s risk-management capabilities by encouraging banks to move toward collateralized inter-bank transactions.

**Borrowing and lending securities via ISCAP**

ISCAP is a web-based custodian system developed by BNM to encourage the participation of institutional investors in securities lending. Through ISCAP, BNM will borrow securities from major institutional investors such as pension funds and insurance companies. The borrowed securities, mainly Malaysian Government Securities (MGS), will be used by BNM for its repo operations. By "freeing" the captive holdings of MGS by institutional investors to market participants, the overall liquidity in the bond market will be further enhanced.

**Securities lending facility for principal dealers**

A securities lending facility for the ten principal dealers has been introduced to facilitate market-making activities and promote competitive pricing. This will enhance the ability of principal dealers to provide and quote continuous prices for MGS, improve the price-discovery process, and add to liquidity in the secondary market. The securities for this lending facility will be sourced from ISCAP or from BNM’s own holdings. Since a sufficient supply of MGS is crucial for a successful securities lending facility and repo operations, BNM may also purchase MGS from primary and secondary markets based on market prices. To ensure that these purchases do not influence or distort market prices, the purchase of MGS at primary tenders will be based on the weighted average price of the tender and limited to a maximum of 10 percent of the issue size. The amount purchased in the secondary market will be limited to 10 percent of the outstanding amount issued.

Generally in the region, the obligations and privileges of primary-dealer systems need to be further clarified. There is also a need to buttress the privileges of these systems to include funding through, for example, repurchase agreements (repos). As discussed below, in several countries the repo markets remain underdeveloped—posing an additional challenge.

Finally, it is important that primary-dealer systems be well capitalized. In China, for instance, to prevent firms from taking unduly large risk positions relative to capital in the purchase agreement, in securities borrowing and lending, and in derivatives markets, it has been recommended that the People’s Bank of China and the China Securities Regulatory Commission (CSRC) (1) require brokers and dealers in government bonds to meet capital requirements that are related to each firm’s net assets and contingent liabilities (for example, agreements to repurchase securities that have been used as collateral for repos); (2) ensure that the requisite capital requirements are met at all times and that appropriate electronic record-keeping systems are developed, installed, and used by brokers, dealers, and institutional investors to track positions and capital; and (3) ensure that all participants in the market are able to review the financial status of participants with whom they want to trade.93

Rating agencies. A second important element for the pricing of bonds is the existence of good rating agencies. Rating agencies play a very important role in helping to determine the credit risk and thus the spread pricing of corporate bonds. Local rating agencies exist in all countries covered in this report94 and their penetration in the domestic markets is relatively high. However, several of them are relatively new and need more time to build a track record.95 Moreover, although several joint ventures have been formed between international and domestic rating agencies (such as between PEFINDO and Standard and Poor’s in Indonesia), large discrepancies in the rating standards across countries in the region have been documented in the past. In any event, rating agencies in the region still do not accept the ratings made by their counterparts in other countries of the region. And, while the major international rating agencies do rate corporations in East Asia, they generally do not provide ratings across the full array of bond issuers in individual countries. Clearly this can hamper cross-border investments.

Trade reporting. Third, although more controversial (since immediate disclosure could reduce the liquidity available for large trades), evidence suggests that post-trade transparency encourages competitive pricing and helps to make markets more liquid.96 In the United States, for example, trading in corporate bonds was quite limited, but since 2002, dealers in corporate bonds have been required to report over-the-counter trades to the Trade Reporting and Compliance Engine (TRACE) of the National Association of Securities Dealers (NASD). TRACE then publicly disseminates the trade data. Such transparency has reduced bid-ask spreads by an average of five basis points (Edwards and others 2005).

In recent years, some East Asian countries have started to enact reporting requirements similar to those of TRACE, but they have largely limited these requirements to dealers. Malaysia has the Bond Information Dissemination System (BIDS), which requires dealers to record price and volume information into the system within ten minutes of a trade, and makes summary information available to the public with a ten-minute delay. In Thailand, the Thai Bond Market Association requires traders to report over-the-counter trades within 30 minutes and distributes the trade information to Association members four times a day. In Korea, the Korea Security Dealers’ Association requires dealers to report their transactions within 15 minutes, to be disseminated to the public on a website on the same day.97,98

Some countries have also moved to provide investors with better access to information and to facilitate trading by encouraging it to take place on trading platforms (although the majority of both government and corporate bonds in most of the countries are traded over the counter). Korea, for example, has an elaborate electronic trading platform that could be used for trading Asian bonds at the regional level. The Internet-based trading system of the new Korea Exchange is available to bond traders in Korea, but it has not been very popular thus far, as most bond traders still prefer over-the-counter trading. Indonesia’s Surabaya Stock Exchange also provides an electronic trading platform. Thailand has launched a Bond Electronic Exchange, whose experience to date has not been very encouraging (Box 5.2); the Thai government is now considering creating an inter-dealer trading
A system that will provide market participants with transparent market information but allow them to trade over the counter in some form. The Philippines has recently set up an exchange to facilitate inter-dealer trading in fixed-income securities.

Reducing transaction costs

High transaction costs deter investors from trading and can exacerbate problems of efficiency. As discussed above, transaction costs cover the explicit costs of trading and the implicit costs of execution that exist because orders may, as a result of their size and/or the scarcity of counterpart orders on the market, execute at high prices (if they are buy orders) or low prices (if they are sell orders). Specifically, such execution costs comprise bid-ask spreads, market impact (an adverse change in price that occurs when an investor tries to trade in a large volume), and opportunity costs (costs that may be incurred if the execution of an order is delayed or if the trade is not executed).

Both market infrastructure and supporting infrastructure can affect transaction costs. In its market infrastructure the region is well placed, with almost all jurisdictions having fairly advanced clearing and settlement systems with recommended features to minimize the various risks associated with pre-settlement and settlement of securities (Table 5.8).

This is borne out by the GSCS benchmark clearance and settlements ratings and the Thomas Murray post-settlement scores for countries in the region (Table 5.9).

However, East Asian countries vary widely in their supporting infrastructure—that is to say, in the development of repo markets, securities lending, margin trading, and derivatives (Box 5.3).

---

**BOX 5.2 Trading Fixed-Income Instruments on the Exchange in Thailand**

The Bond Electronic Exchange (BEX) was established in November 2003 as a division of the Thai Stock Exchange to provide investors with additional investment instruments. In May 2005, BEX acquired a bond-trading platform that had been developed by the Thai Bond Dealers’ Club.

In addition to providing better access to information, BEX expects to make it easier for bond investors to trade bonds. BEX is expected to create a more efficient and liquid secondary bond market, since prior to BEX, bonds were traded over the counter, mainly by institutional investors, and small investors were unable to get into this market. BEX currently uses the trade-by-price method. However, the committed price will be converted into an indicative yield to assist investors in their investment decisions. Although only publicly listed companies are currently allowed to trade on BEX, non-listed companies will soon be able to have their bonds traded there. The process is as follows:

**Automatic matching order**

An investor can place an order through a member of the Exchange or a brokerage company, who, in turn, enters the order into BEX’s trading platform. As in equity trading on the Thai Stock Exchange, the orders are sequenced using the first-in-first-out (FIFO) algorithm. FIFO follows the sequence of price and then time priority. If the bid or offer price and volume can be matched, the orders are matched automatically.

**Put through**

When the trading value exceeds 10,000 units—roughly equivalent to 10 million baht (US$250,000)—an alternative method provided by the BEX called the “put through” must be used. The counterparties can negotiate off the Exchange. Once the deal is concluded, the seller can initiate the put-through transaction, which then needs to be verified by the buyer. Once the confirmation process is complete, the buyer will allow the transaction to go to the next phase in the process: clearing and settlement.

**Clearing and settlement**

Thailand Securities Company, Limited, known as TSD, administers the process of clearing and settlement. Currently it takes two working days to complete the clearing and settlement once an order has been executed.

**Experience to date**

BEX is still at an introductory stage and almost all bond transactions continue to be conducted in the over-the-counter market. Retail investors have shown little interest in it thus far.

Source: Bond Electronic Exchange, Thailand.
TABLE 5.8 Where Countries Stand on Elements Affecting Pre-Settlement and Settlement Risks

<table>
<thead>
<tr>
<th>Risk Control</th>
<th>China</th>
<th>Indonesia</th>
<th>Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-settlement risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade confirmation (T=0)</td>
<td>B+</td>
<td>A−</td>
<td>A</td>
<td>A</td>
<td>B+</td>
<td>A−</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Settlement cycles (T=3 or less)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stocks</td>
<td>T+3</td>
<td>T+3</td>
<td>T+1</td>
<td>T+1</td>
<td>T+3</td>
<td>T+2</td>
<td>T+1</td>
<td>T+1</td>
</tr>
<tr>
<td>bonds</td>
<td>T+3</td>
<td>T+3</td>
<td>T+1</td>
<td>T+1</td>
<td>T+3</td>
<td>T+1</td>
<td>T+1</td>
<td>T+1</td>
</tr>
<tr>
<td>Central counterparty</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Settlement risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central Securities Depository (CSD)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Delivery vs. payment</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Timing of settlement finality</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>CSD risk controls</td>
<td>n.a.</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Cash-settlement assets</td>
<td>Y</td>
<td>n.a.</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Operational risk</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Custody risk</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

Source: International Organization of Securities Commissions.
Notes: Ratings follow standard Alpha scale from AAA (highest) to C.
Y = Yes. n.a. = not applicable.

The lack of these instruments and facilities reduces liquidity and increases the transaction costs of trading (Table 5.10).

Perhaps the most debated of these elements is margin trading—leveraged trading with respect to both short and long positions (or margin purchases and short selling). The argument for allowing margin trading is to introduce liquidity to the system. An argument against margin trading is that it can fuel feedback trading and thus destabilize the market.

TABLE 5.9 Scores on Clearance and Settlement Infrastructure and Post-Settlement

<table>
<thead>
<tr>
<th>Economy</th>
<th>GSCS benchmark clearance and settlement score</th>
<th>Post-settlement score</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>92.5</td>
<td>A−</td>
</tr>
<tr>
<td>Indonesia</td>
<td>68.5</td>
<td>A</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>97.3</td>
<td>A+</td>
</tr>
<tr>
<td>Malaysia</td>
<td>93.3</td>
<td>A+</td>
</tr>
<tr>
<td>Philippines</td>
<td>92.4</td>
<td>A</td>
</tr>
<tr>
<td>Thailand</td>
<td>93.6</td>
<td>A</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>n.a.</td>
<td>A+</td>
</tr>
<tr>
<td>Singapore</td>
<td>n.a.</td>
<td>AA−</td>
</tr>
<tr>
<td>Memorandum:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>85.0</td>
<td>A+</td>
</tr>
<tr>
<td>Japan</td>
<td>n.a.</td>
<td>A+</td>
</tr>
<tr>
<td>Mexico</td>
<td>90.5</td>
<td>A+</td>
</tr>
<tr>
<td>Peru</td>
<td>97.8</td>
<td>A−</td>
</tr>
<tr>
<td>Turkey</td>
<td>98.3</td>
<td>A</td>
</tr>
<tr>
<td>Venezuela, R.B. de</td>
<td>72.6</td>
<td>BBB</td>
</tr>
</tbody>
</table>

Sources: GSCS Benchmark and Thomas Murray.
Notes: GSCS compares the settlement efficiency of markets, incorporating average trade size, local market interest rates, the proportion of trades that fail, and the length of time for which they fail. Thomas Murray produces ratings of post-trade risk exposures according to various criteria of clearing and settlement, safekeeping, and asset servicing. The ratings follow a standard alpha scale from AAA to C.

n.a. = not applicable.
A further argument is that margin trading, especially short selling, can make the market too susceptible to manipulation; in particular, a short seller’s loss when short-squeezed can be unlimited, while a margin purchaser’s losses will be limited to his initial exposure. Thus short selling poses potential systemic risks.\textsuperscript{100} Often, therefore, countries prohibit short selling. Even if short selling is not explicitly prohibited, the lack of an efficient borrowing and lending system for stocks makes short sales impractical for both financial and operational reasons. As shown in Table 5.10, China and Malaysia currently prohibit short selling—although Malaysia has recently announced a partial lifting of the ban in short sales that was imposed at the time of the crisis. In several other countries, short selling is allowed but is not practiced, given shortcomings in the securities lending and repo markets.

Nonetheless, market symmetry—in terms of allowing both margin purchases and margin sales—is important for liquidity: in a leveraged and symmetrical market, a trader can efficiently buy or sell at minimal and uniformly applicable costs immediately in response to new market information. Asymmetrical market liquidity—in which securities investments can be financially leveraged through margin lending but short sales are prohibited—can lead to long-run deviations of stock prices from their fundamental value, reducing liquidity in a declining market and delaying the market recovery. In fact, systemic risk in a market without short sales but with margin purchases is exacerbated by the fact that an asymmetrical price-adjustment process takes place, in which stocks cannot be profited upon even if they decline in value.\textsuperscript{101}

Even if all margin trading is prohibited, with the goal of ensuring symmetry, it is harder to enforce a restriction on margin purchases than on short sales, since it is hard to tell whether the funds used for purchasing a particular stock were borrowed or not, given that money is fungible. In contrast, restrictions on short selling are easier to enforce, since to borrow securities systematically for short selling requires a stock-lending system to be formally established and efficiently operated. Thus, when margin trading is prohibited, a country may in practice end up with an asymmetrical situation, in which margin purchases are taking place.

Arguably it may be better for countries to consider allowing both margin purchases and short sales and ensuring that the requisite elements for margin trading within reasonable bounds of safety are in place. These elements comprise margin accounts, margin lending, and stock lending, discussed in turn below. At the same time, in addition to a viable regulatory framework, the operation of these elements requires

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**BOX 5.3 Repos and Securities Lending**

Repos. Under a repurchase agreement (repo), a party agrees to sell securities to another against the transfer of cash, with a simultaneous agreement to purchase the same securities (or equivalent securities) at a specific price on an agreed date in the future. Repo transactions are carried out to transfer particular securities between counterparties or to facilitate collateralized cash loans or funding transactions. Most bond lending and bond financing is carried out through repo transactions. Outside the United States, there is also a growing market in repos for equity.

Securities lending. This describes the market practice by which, for a fee, securities are transferred temporarily from one party (the lender) to another (the borrower) who is obligated to return them either on demand or at the end of an agreed period. Securities lending provides liquidity to money, bond, and equity markets. The increase in liquidity reduces trading costs and thereby increases market efficiency. Securities lending enables market participants, especially dealers, to sell securities that they do not own, knowing that they can borrow prior to settlement. The ability to borrow and lend securities relatively freely enables securities broker-dealers to service a broad range of their clients including asset managers, hedge funds, and other broker-dealers. There are several motivations for borrowers, including to cover short sales either as a stand-alone transaction or as part of a larger trading strategy such as convertible bond arbitrage, pair trading, or merger arbitrage. On the lending side, securities lending has become an important and growing part of revenues for institutional investors (pension funds, insurance companies, and other plan sponsors), custodian banks, and the prime brokerage arms of major investment banks.
TABLE 5.10  Key Factors Affecting Liquidity and Efficiency of Securities Markets

<table>
<thead>
<tr>
<th>Issue</th>
<th>China</th>
<th>Indonesia</th>
<th>Korea</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Information and price discovery</strong> Information disclosure and corporate governance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benchmark yields</td>
<td>None.</td>
<td>True yield curve yet to emerge.</td>
<td>Limited liquidity in issues with maturity of over five years.</td>
<td>Limited liquidity in issues with maturity of over five years.</td>
<td>Has a sovereign yield curve but in practice very illiquid. Most trading with maturity of less than one year.</td>
<td>Limited liquidity in issues with maturity of over five years.</td>
<td>Successful in short and intermediate yield curves.</td>
<td>Successful in short and intermediate yield curves.</td>
</tr>
<tr>
<td>Information dissemination</td>
<td></td>
<td></td>
<td>Bond pricing company exists</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary dealers (PDs)</td>
<td>Yes.</td>
<td>No obligation to make markets.</td>
<td></td>
<td>Two sets of dealers, PDs required to make 2-way quotes on on-the-run Krungthai Bank issues. Max bid-offer 10 basis points.</td>
<td>PDs required to make 2-way quotes on T-bills, Bank Negara Malaysia notes, and on-the-run Malaysian Government securities.</td>
<td>Fixing banks required to provide bids on benchmark T-bills and fixed treasury notes.</td>
<td>No obligation to make two way quotes.</td>
<td>PDs required to make 2-way quotes on all Exchange Fund notes.</td>
</tr>
<tr>
<td>Issue</td>
<td>China</td>
<td>Indonesia</td>
<td>Korea</td>
<td>Malaysia</td>
<td>Philippines</td>
<td>Thailand</td>
<td>Hong Kong (China)</td>
<td>Singapore</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>-----------</td>
<td>-------</td>
<td>----------</td>
<td>-------------</td>
<td>----------</td>
<td>------------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Transaction costs</strong></td>
<td>CGT: 5% WHT on interest income: 10% for QFII.</td>
<td>CGT: 20% WHT on interest income. Other tax: 0.1% of gross sale proceeds is withheld by the broker as income tax for securities transactions executed on the exchange.</td>
<td>CGT: The lower of 11% of gross sales proceeds or 27.5% of net capital gains. WHT on interest income: 27.5%</td>
<td>CGT: None. WHT on interest income: None.</td>
<td>CGT: None for transactions on the exchange. WHT on interest income: 20%.</td>
<td>CGT: 15%. No CGT on government bonds or certain quasi-government bonds. WHT on interest income: None for government or government-guaranteed debt; 15% otherwise.</td>
<td>CGT: None. WHT on interest income: None for government and certain quasi-government bonds.</td>
<td></td>
</tr>
<tr>
<td><strong>Withholding taxes</strong></td>
<td>Planned in 2007. Available for government bonds 7 days to 1 year. Underdeveloped, so dealers unable to short</td>
<td>Underdeveloped but available with tenors from overnight to 90 days.</td>
<td>Relatively developed Available with tenors from overnight to 1 year.</td>
<td>Underdeveloped but available with tenors from overnight to 1 year.</td>
<td>Underdeveloped but available with tenors from overnight to 90 days.</td>
<td>Mature repo market</td>
<td>Mature repo market</td>
<td></td>
</tr>
<tr>
<td><strong>Repo markets</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Margin purchases</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><strong>• margin purchases allowed?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>• margin loans allowed?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>• margin purchases practiced?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Short sales</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><strong>• short sales allowed?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>• stock lending allowed?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>• short sales practiced?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Notes: The figures in the disclosure and corporate governance cells are the overall corporate-governance-culture scores from Credit Lyonnais Securities Asia and thus represent market views on the overall level of corporate governance.

CGT = capital gains tax. WHT = withholding tax. QFII = qualified foreign institutional investors.

a. Repo markets in China are available for government bonds but not enterprise bonds.
b. The new amendments to the securities law in China leave open the possibility of margin trading but do not specify purchases or sales.
c. Malaysia has just announced a partial lifting of the ban on short sales that was imposed during the crisis. Short selling will be limited, however, to fewer than 100 stocks out of the nearly 1,000 listed.
that the regulator; the intermediaries, including credit suppliers; and investors have keen awareness and good risk-management skills.

Margin accounts. Investors conduct margin trading in a margin account opened by their stockbrokers. The responsibilities of the stockbroker include explaining the risks of margin trading to the investor. The regulator, stock exchanges, or the stockbrokers’ self-regulatory organization also need to set rules and regulations specific to trading in a margin account and to enforce them. Trading in a margin account is usually subject to margin requirements. Margin requirements are set separately for the initial margin, in order to start margin trading, and for the maintenance margin, to continue trading, with the former being higher. The higher the margin requirement, the less leveraged the investor and the less risky the investment. The appropriate margin requirement may vary across countries and over time, depending on many factors including market liquidity, market volatility, market-price level, mark-to-market frequency, and trade-settlement efficiency.

Margin lending. In a well-defined regulatory framework, stockbrokers and banks should be allowed to provide an investor with a loan facility secured by shares, bonds, and/or cash, so that the investor can purchase and refinance margin-eligible securities. Margin lending is normally regulated by the margin-account regulations that govern both margin purchases and short sales.

Margin lending increases trade size as well as volumes, and hence the settlement amounts. Thus the smooth running of a margin-lending facility where daily rolling settlement occurs requires a deeper money market than otherwise. Trades must be settled on a daily basis, thus resulting in a smaller netting effect on settlement amounts. A margin purchase locks up money until the margin purchaser closes his position. Therefore margin purchases, especially in a booming market, may reduce the liquidity of the money market, and so a deep money market is essential. The regulator must supervise the compliance of stockbrokers’ margin-lending facilities with market regulations through on- and off-site inspections.

Stock lending system. Short selling requires a lending system to be in place for stocks or securities in order for short sellers to borrow shorted stocks. In addition to stock brokers, lenders of stocks can be securities depositories, custodial banks, investment managers, and institutional investors (insurance and pension funds). A stock-lending system must be efficient and robust, not only to facilitate short sales but also to prevent abnormal short squeezes. Wide participation by stock lenders in a stock-lending system will reduce the risk of a short squeeze by making it easier and less expensive to cover short positions. Since stock lending and borrowing expose the transacting parties to each other’s credit risk and to the market risk of loaned securities, they can potentially lead to systemic risk, due to the leveraged nature of the short sales that underlie stock loans. The legal, regulatory, and supervisory framework of stock lending must be comprehensive and coherent so that participants in the system can comply with relevant rules and regulations and manage risks properly. There is often a tradeoff between the efficiency and robustness of the system, and finding the right balance is important.

Since the stock borrower pledges collateral with the lender and the borrower’s collateral is marked to market daily and subject to margin calls, stock lending poses a new challenge to the regulator in terms of collateral management. The regulator needs to address at least two aspects of risk management. The first relates to the variety of risks—credit, interest, price, liquidity, operational, and legal—that the stock lender may face, depending on what sort of securities are made eligible for collateral. Regulators need to ensure that stock lenders have the necessary risk-management processes in place. The second pertains to the scope of participants in the stock-lending market. If stock lenders—individuals and institutions—are under different supervisory jurisdictions, the coherence and coordination of risk-management regulation applicable to different categories of stock lenders could be a challenge.

It is important to note that though the components of short selling have some standard features, their design and operation will need to be country- or market-specific, reflecting the existing financial structure and market infrastructure and the current composition of the investing community. For instance, the level of development and openness of money markets dictate the design of margin-lending facilities. Whether institutional investors or retail investors dominate will be of importance in the design of a securities-lending system. Also, the characteristics and composition of factors affecting the design are likely to change over time, so components will need to be modified accordingly.
Broadening the investor base

The investor base in most countries in the region is quite small, and tends to be dominated by government-controlled provident funds, insurance companies, and banks. Such investors tend to buy and hold. Institutional investors who might trade more actively, such as fixed-income funds and hedge funds, are typically absent from these markets or are only allowed very limited credit exposures. Foreign investors, too, are missing from some of these markets (Gyntelberg and others 2006). Even where markets are not closed to them, foreign investors are often discouraged from participating by taxes and by a lack of markets for hedging instruments such as currency swaps, particularly in the bond markets.104

There is thus a need to further diversify the domestic institutional and retail investor base, as well as the asset-management industry. The latter is discussed further in Chapter 6. Measures to strengthen and broaden the investor base will need to include opening up and facilitating cross-border investment from both within and outside the region.

From the perspective of investors generally, a legal and regulatory framework that promotes good corporate governance is essential. This includes well-defined rights that can protect outside shareholders from the actions of controlling shareholders and managers,105 the adoption and enforcement of bankruptcy laws that clearly define creditors’ rights and borrowers’ responsibilities, and timely and accurate public disclosure of financial information. Issues of shareholder and creditor rights and information disclosure, which are important for the development of financial markets more generally, were discussed in Chapter 3. As discussed in that chapter, the region now fares quite well in terms of many of the legal and regulatory elements of corporate governance—the main challenge now lies in their implementation and enforcement.

Empirical work has found that aspects of securities laws related to disclosure and private monitoring are important for the development of the securities markets. One cross-country analysis, using data for 49 countries across the world, has established a significant correlation between stock market development and the extent of disclosure and private monitoring that is specified in the law regarding prospectuses for public offerings (La Porta and others 2006). Another study, based on a sample of 72 countries, covers aspects of securities laws related to self-dealing (that is, the expropriation of investors by managers or controlling shareholders) (Djankov and others 2005). That study found that what matters most for market development are those aspects of the law on self-dealing that favor private over public monitoring and enforcement.106

The securities laws of most countries in the region cover these aspects relatively well (Table 5.11), although Indonesia lacks some elements of the disclosure requirements, Thailand lacks several elements of the liability standards, and the Philippines ranks low on the anti-self-dealing standards.

Improving access to finance for smaller corporations

Countries in the region also need to encourage a growing and more diverse set of issuers of securities—both in size and credit quality—to appeal to institutional and retail investors.

Several factors affect the interest of firms in seeking financing from securities markets. These include the costs of listing, access to other long-term funding, and disclosure requirements. The costs of listing include the management fees that are paid for the advice in structuring the transaction, preparing the documentation for credit-rating agencies, and issuing registration and other documentation, as well as underwriting costs; legal fees; fees to obtain credit ratings, in the case of bonds; and taxes.

Issuance costs and processes can vary significantly. Some countries in the region may have room to reduce some of these costs, although generally the underwriting business in the region appears to be quite competitive and has already resulted in a compression of fees charged by lead managers.

Some of these costs—particularly legal fees and credit-rating fees—are subject to economies of scale, in that they may fall with the frequency and size of issue, making stock market listing more difficult for smaller firms.

One way to facilitate access to external, non-bank financing by smaller companies is to have different boards or market tiers on an exchange (or to have several exchanges) that compete by having different listing criteria that can facilitate access to capital for smaller enterprises. Over the last decade, many new markets have been established globally, trying to replicate the success of NASDAQ, which was set up
to cater to new and high-growth corporations. The track record of these new exchanges has been mixed. Although they have followed broadly similar strategies, differences in focus and context have affected the outcomes of their efforts. For example, the Neuer Markt in Germany, which focused narrowly on high-tech companies, failed in part because of this narrow focus, the lack of sophistication of both investors and regulators, and bad timing, since it was launched just as the stock market bubble was beginning to deflate.107

The Alternative Investment Market (AIM) promoted by the London Stock Exchange (LSE) was launched in 1995 to cater to the needs of small, growing companies, and applies a less stringent regulatory regime than that of the main LSE. In the context of the strong investment culture and regulatory capacity that prevails in the United Kingdom, AIM has created a light-touch regulatory environment that sets out to attract a broad set of companies from different sectors and focuses on the needs of institutional investors. For a company to list on AIM, there is no minimum level of shares required to be held by the public, no trading-record requirement, no requirement of prior shareholder approval for transactions, and no minimum capital requirement. However, the company must appoint a nominated adviser (“nomad”) who is responsible, among other things, for warranting to the LSE that the company is appropriate for AIM. The company’s application for admission is pre-vetted by the nomad, and not LSE.

A few such specialized markets exist in East Asia: the Growth Enterprise Market in Hong Kong (China), SESDAQ and SEDAQ in Singapore, KOSDAQ in Korea, and MESDAQ in Malaysia.108

The experience of different alternative-market models suggests some general observations: markets that focus too narrowly on one sector are vulnerable to a downturn in that sector; a market that targets relatively unsophisticated investors needs to be more stringently regulated;109 and a supervisory and advisory role, similar to that played by the nomads in AIM, can be useful.

In addition to alternative exchanges, countries have looked to alternative instruments and mechanisms. For instance, Mexico has created a specialized com-

### TABLE 5.11 Ratings of Securities Laws on Disclosure Requirements, Liability Standards, and Anti-Self-Dealing

<table>
<thead>
<tr>
<th>Economy</th>
<th>Legal origin</th>
<th>Disclosure requirements index</th>
<th>Liability standards index</th>
<th>Anti-self-dealing standards index</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>0.78</td>
</tr>
<tr>
<td>Indonesia</td>
<td>French</td>
<td>0.50</td>
<td>0.66</td>
<td>0.68</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>German</td>
<td>0.75</td>
<td>0.66</td>
<td>0.46</td>
</tr>
<tr>
<td>Malaysia</td>
<td>English</td>
<td>0.92</td>
<td>0.66</td>
<td>0.95</td>
</tr>
<tr>
<td>Philippines</td>
<td>French</td>
<td>0.83</td>
<td>1.00</td>
<td>0.24</td>
</tr>
<tr>
<td>Thailand</td>
<td>English</td>
<td>0.92</td>
<td>0.22</td>
<td>0.85</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>English</td>
<td>0.92</td>
<td>0.66</td>
<td>0.96</td>
</tr>
<tr>
<td>Singapore</td>
<td>English</td>
<td>1.00</td>
<td>0.66</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Memorandum:**

<table>
<thead>
<tr>
<th>Country</th>
<th>Legal origin</th>
<th>Disclosure requirements index</th>
<th>Liability standards index</th>
<th>Anti-self-dealing standards index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>German</td>
<td>0.75</td>
<td>0.66</td>
<td>0.48</td>
</tr>
<tr>
<td>Canada</td>
<td>English</td>
<td>0.92</td>
<td>1.00</td>
<td>0.65</td>
</tr>
<tr>
<td>Germany</td>
<td>German</td>
<td>0.42</td>
<td>0.00</td>
<td>0.28</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>English</td>
<td>0.83</td>
<td>0.66</td>
<td>0.93</td>
</tr>
<tr>
<td>United States</td>
<td>English</td>
<td>1.00</td>
<td>0.66</td>
<td>0.65</td>
</tr>
<tr>
<td>Chile</td>
<td>French</td>
<td>0.50</td>
<td>0.33</td>
<td>0.63</td>
</tr>
<tr>
<td>Greece</td>
<td>French</td>
<td>0.33</td>
<td>0.50</td>
<td>0.23</td>
</tr>
<tr>
<td>Mexico</td>
<td>French</td>
<td>0.50</td>
<td>0.11</td>
<td>0.18</td>
</tr>
<tr>
<td>Peru</td>
<td>French</td>
<td>0.33</td>
<td>0.66</td>
<td>0.41</td>
</tr>
<tr>
<td>Spain</td>
<td>French</td>
<td>0.50</td>
<td>0.66</td>
<td>0.37</td>
</tr>
<tr>
<td>Turkey</td>
<td>French</td>
<td>0.50</td>
<td>0.22</td>
<td>0.43</td>
</tr>
</tbody>
</table>

**Sources:** La Porta and others 2006, Djankov and others 2005.

**Notes:** Thailand has a French-derived civil law with other influences. Indonesia has a Dutch civil law derived from German civil law, also with other more recent influences. However, La Porta and others classify securities laws into three major categories: English, French, and German: English denotes all common-law systems; French includes derivatives such as Spanish; and German includes derivatives such as Scandinavian and Dutch.

n.a. = not available.
pany category tailored to bridging the gap between unlisted small- and medium-size enterprises and listed companies, in which institutional investors are permitted to invest (Box 5.4).

Securitization can be an important means for smaller companies to access securities markets, as discussed in Chapter 7. However, loans to small businesses may not be easily securitized into large homogeneous pools that credit agencies and investors can easily analyze, given factors such as the heterogeneity of the individual loans, and differences among the underwriting standards of the originators. Thus if the markets for securitized loans to small businesses are to grow, the underwriting standards and documentation for these loans must be made more uniform, and information for estimating the risk of loss must be made more easily available.

Venture capital is a potential source of capital for issuers. Generally some regulation is needed to make venture capitalists willing to invest in firms that are little known and have not yet established a reputation. Also important for such investors is an exit mechanism (typically an initial public offering [IPO]), since venture-capital investments generally do not pay dividends but yield their returns through the capital gains obtained upon exit.110

Strengthening the Regulatory Framework for Securities Markets

The discussion in this section reviews issues and options regarding the regulatory framework for securities markets, including the implications of corporatizing stock exchanges and the adoption of a disclosure-based system for regulating the primary offering of securities, and assesses the key elements of the regulatory framework for securities markets in the region.

Demutualization

One of the recent trends seen internationally—and increasingly in East Asia as well—is a move to demutualize stock exchanges (Box 5.5). Demutualization is seen as a means to address problems of languishing domestic securities markets, fierce international competition, and the need to upgrade the infrastructure of an exchange through investments in technology.

Conversion from a not-for-profit organization controlled by brokers or the government to a for-profit company with a broader shareholder base can help a stock exchange to cope better with the challenges arising from greater global competition. Demutualization can also help to raise the funds needed for investments in technology, and provides a more attractive vehicle for professional managers. And it can facilitate the development of links and alliances between exchanges, whether by permitting one exchange to invest in another, or through cross-shareholdings between exchanges.

So far, five out of the eight countries covered in this report have fully demutualized their stock exchanges.111 In Malaysia and the Philippines, the exchange has been structured as a public company

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**BOX 5.4 New Ways for Medium-Size Companies to Access Capital: Mexico’s New Securities Law**

In Mexico, the new securities law—to come into effect by mid-2006—introduces a new type of company that will presumably have better access to capital markets. Traditionally there have been two main types of companies in Mexico: the standard company (Sociedad Anonima) and the fully listed company. The corporate governance standards of the two groups differ widely, and this gap has widened as the governance of listed companies has strengthened.

The new Law establishes an “intermediate” company called SAPI (the Spanish acronym for an investing promoting corporation). A company of this type is required to have a stronger corporate governance regime, in return for exemptions to Mexican company law, which prohibits the transactions commonly used in private capital market deals such as shareholder agreements. In addition, SAPIs will be able to list on the exchange with a three-year grace period for conforming to the regime required of listed companies.

A company’s adoption of the SAPI regime is voluntary. The rationale is that the company will thereby be able to signal to the broader capital markets (private equity and debt deals) that it offers better creditor and shareholder rights than does a standard (non-listed) company. But, since the information-disclosure regime required of SAPIs is less stringent than that of publicly listed companies, only institutional investors, or private investors who have signed a waiver, will be allowed to invest in them.
whose shares are quoted on its own exchange, while in Hong Kong (China) and Singapore, the exchange has become a subsidiary of a public company whose shares are quoted on the exchange. In Indonesia and Korea, the exchange is an unlisted public company whose shares are held by a broad range of banks, financial intermediaries (including brokers), and listed companies (Table 5.12). Unlike in the more mature advanced industrialized countries, where the move to demutualize came from the exchanges themselves, in the East Asia region the governments and securities regulators have taken the lead in promoting and facilitating the restructuring.

Demutualization does raise some regulatory issues. In particular, conflicts of interest may arise between the commercial business objectives of the exchange and its self-regulatory functions. There are concerns about whether a demutualized exchange will cease to allocate the resources needed to fulfill its regulatory functions, if it comes under commercial pressure to cut costs in areas that do not generate income. Others fear that commercialized exchanges may begin to charge fees for data and trade information, rather than allowing the free disclosure that is fundamental for market efficiency and integrity. Concerns are also raised about the ability of a commercial exchange to remain unbiased by self-interest, or to take enforcement action against, and impose sanctions on, listed companies or market participants that breach their operating rules, given that these institutions provide major sources of revenue for an exchange.

These concerns have elicited a variety of responses internationally. Exchanges that have continued to perform all their supervisory functions following demutualization, such as those in Singapore and Australia, have successfully maintained that these functions are

<table>
<thead>
<tr>
<th>Economy</th>
<th>Demutualized?</th>
<th>Listed?</th>
<th>Functions of stockbrokers’ self-regulatory organization retained?</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>No</td>
<td>No</td>
<td>—</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>Yes, but not yet regarded as commercial enterprise</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Thailand</td>
<td>No</td>
<td>No</td>
<td>—</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, in part</td>
</tr>
<tr>
<td>Singapore</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: — not applicable.
integral to protect their reputation and hence to their continuing commercial viability, and that they themselves are best equipped to undertake these functions efficiently. In the case of NASDAQ, a separate subsidiary of NASD (NASDAQ Regulation), has been established to regulate the NASDAQ stock market. In Canada, a joint venture has been set up between the Toronto Stock Exchange and the Canadian Dealers’ Association to regulate market intermediaries at arms length from the demutualized exchange. In some jurisdictions, the securities regulator has taken over the regulatory functions formerly undertaken by the exchange; for example, in Hong Kong (China), the Securities and Futures Commission (SFC) conducts broker supervision, and in the United Kingdom, where the United Kingdom Listing Agency, a division of the Financial Supervisory Agency, regulates company listings.

In many jurisdictions, mechanisms have been introduced to reinforce the public-interest role of an exchange following demutualization. Their purpose is to address potential conflicts of interest and to avoid unnecessary risks that could adversely affect the financial viability of the exchange. In Hong Kong (China) and Singapore, for example, the law provides that the public interest must prevail over the business interests of the exchange, and an ownership restriction has been placed on the exchange to ensure that all shareholders who acquire a substantial interest in the exchange are vetted. In both cases, a 5 percent shareholder limit is applicable, although the government or securities regulator can raise the limit as appropriate to accommodate a strategic investor or an alliance with another exchange.

It is important that the regulatory response to demutualization be kept under review and adjusted from time to time to meet changing conditions. In Hong Kong (China), where the exchange is responsible for approving the public offering of securities, SFC’s external oversight of listings on the exchange is being enhanced through new legislation on exchange-listing rules, which also provides stronger penalties with which SFC can enforce issuers’ compliance with the rules.

Demutualization in East Asia has provided the means for exchanges to consolidate, restructure, and modernize. It could facilitate consolidation at the regional level, as it has put in place the framework for cross-border ownership of these exchanges. It has also permitted brokers to cash out their membership from an exchange, and has forced brokerage fees to become more competitive, to the benefit of investors. The risks arising from exchanges operating as commercial enterprises appear to be comfortably managed. However, it is still too early to assess how much the demutualization of exchanges will contribute to capital-market development, or will enhance the international competitiveness of these exchanges.

Moving from a merit-based to a disclosure-based regulatory system

A move is also underway to replace merit-based with disclosure-based systems for regulating the primary offering of securities.

Merit-based regulation subjects any issue, offer, or listing of securities to a regulator’s review of the merits of the investment. Thus the regulator assumes a direct role in protecting investors, interposing itself between the issuers and investors. The merit-based approach is generally suitable at the earlier stages of capital-market development, where the level of investor education is relatively low and the amounts raised on the capital markets are relatively small. As the amounts raised on the capital markets increase, and funding proposals become more innovative and intricate, the costs of approval and compliance for both issuer and regulator become increasingly burdensome. High costs can stifle efficient capital investments and limit the scope of investment opportunities for both entrepreneurs and investors.

Disclosure-based regulation rests on the principle that issuers and the intermediaries that are offering the securities need to provide investors with sufficient, accurate, and timely disclosure of relevant information pertaining to the company’s business, finances, prospects, and terms of securities, so that investors can evaluate the risks and merits of their potential investments. The information is generally provided through a prospectus and the emphasis is therefore on compliance with applicable standards. In addition, investors are expected to carry out their own due diligence, perhaps with the help of professionals (lawyers, accountants) and to assume a higher level of responsibility in evaluating the risks of a particular offering.

Under a disclosure-based regulatory regime, enforcement is delegated to self-regulatory bodies such as stock exchanges and professional associations. The role of the regulators concentrates on overall enforcement of laws and regulations to ensure that the interests of investors are well protected and that
market participants follow sound business practices, adhere to the standards, and comply with laws and regulations.

The benefits of a shift to a disclosure-based system are seen to be:

- more efficient capital markets—because a merit-based regulatory system becomes too burdensome for both issuers and supervisors when the sophistication of financial markets increases;
- higher standards of disclosure, due diligence, and corporate governance, as well as accountability by promoters and directors of public companies and their advisers to investors; and
- greater market-driven discipline in the pricing and valuation of securities.

Currently in the region, the regulatory systems in Hong Kong (China), Korea, Malaysia, and Singapore are disclosure-based, while that in Thailand is a mixture, moving toward a disclosure-based system. Systems in China, Indonesia, and the Philippines are still largely merit-based.

Malaysia’s experience in moving from a merit-based to a disclosure-based regulatory system offers lessons for other countries in the region. The key building blocks that Malaysia used to implement its disclosure-based regime were prospectus reform; investor education to enhance investor awareness; enhancement of expertise and professionalism among market professionals; ensuring compliance through effective surveillance and enforcement; and organizational restructuring (resulting in the establishment of four specialized departments within the Securities Commission). The move took about seven years to complete in a phased manner, with several guidelines issued to enable market participants to fully understand their responsibilities and the rules of the game. Two especially notable guidelines (issued in April 2003) are those on private-debt securities and those on asset-backed securities.

Broader regulatory and supervisory framework for securities markets

The principles of the International Organization of Securities Commissions (IOSCO) set out, in broad terms, the key elements in ensuring an effective system of securities regulation. Such a system has three core objectives: (1) ensuring investor protection; (2) ensuring that markets are fair, efficient, and transparent; and (3) reducing systemic risk. These objectives are supported by 30 core principles, which are stated at a general level and permit considerable flexibility in implementation, reflecting the broad scope of responsibilities that most securities regulators have.

Principles 1–5 relate to the regulator and to its power, resources, independence, and accountability; principles 6–7 relate to self-regulatory organizations and to their supervision; principles 8–10 relate to enforcement; principles 11–13 relate to cooperation, including international cooperation for regulatory and enforcement purposes; principles 14–16 to issuers and disclosure of information; principles 17–20 relate to collective investment schemes and their operation; principles 21–24 to the supervision of market intermediaries; and principles 25–30 relate to the integrity of the secondary market, including the need for robust clearance and settlement systems to ensure fair, effective, and efficient securities transactions and to reduce systemic risk, which is addressed in principle 30.

The 54 assessments completed globally by IOSCO as of April 2004 show that implementation has tended to be relatively weak for those principles (8–10) that govern the enforcement of securities regulations, and for principles for issuers (14–16). Overall, regulators lack the authority to investigate; have limited access to the time-sensitive data needed for surveillance purposes; have insufficient resources for inspection, surveillance, and investigation; and often have a limited enforcement mandate. With respect to issuers, there is a clear need for more efficient methods to disseminate information to the public and to improve the quality of the information being released.

The assessments also show a need to improve the overall legislative and policy framework relating to the treatment of shareholders, a need to enhance the regulatory regime for auditors, and a need to address the lack of harmonization between international and domestic accounting and auditing standards. Other common problems include a need for regulations appropriate to deal with collective investment schemes, and a need to expand the scope of regulators’ responsibilities. To achieve their investor-protection objective and ultimately ensure the stability of the system, securities regulators must cast a broad enforcement net to detect and prevent both accounting and financial fraud between intermediaries and their
clients and in public statements by issuers. In addition, the scope for cooperation and exchange of information among securities for law enforcement purposes is often quite wide-ranging.

Few formal assessments have been carried out in the context of the Financial Sector Assessment Program thus far in East Asia. However, as discussed earlier, many of the areas that are weak in the global context appear to be weak in East Asia as well—in particular the extent and quality of information disclosure by corporate issuers, as well as accounting and auditing problems. And, as discussed in Chapter 6, it is also important for the region to have in place appropriate regulations for collective investment schemes.

**Conclusions**

Going forward, the bond market—and the corporate bond market in particular—is the segment requiring the most attention from East Asian financial sector policymakers. Thus far, most of the bonds issued in the region are issued by quasi-government bodies or have explicit or implicit guarantees. There is now a need to focus more on enabling investors to evaluate and assess credit risks for a broader class of potential issuers. Measures are needed to promote the creation of government benchmarks along a full maturity spectrum, to enhance the quality of credit rating, and to help improve corporate governance, disclosure rules, and accounting standards.

There is also a need to enact measures that can help broaden and diversify the investor base to foster greater liquidity and efficiency.

On infrastructure issues, until now, the primary emphasis has been on developing the market infrastructure in an effort to reduce transaction costs and enhance the overall efficiency of the securities markets. The important next step is to develop the supporting infrastructure—repo markets, securities lending, margin trading, and derivatives markets—with the requisite regulatory and supervisory underpinnings.

There are essentially three tiers of securities markets in the region. Hong Kong (China) and Singapore have the largest and most developed equity markets in the region. Along with Korea, they also rank higher than the rest of the region in terms of efficiency—although they rank only in the median range in terms of efficiency worldwide. Hong Kong (China) and Singapore also have the most stable securities markets in the region. Their bond markets are not among the region’s largest but their corporate bond markets are quite large and fairly liquid.

Korea and Malaysia are in the next tier in terms of size. Both have large equity markets, although that of Malaysia is not yet as efficient as those of Korea, Hong Kong (China), or Singapore. Both have reasonably large and diverse bond markets, but lack of liquidity in these markets is an issue, especially in Malaysia. As noted, Bank Negara has recently taken some measures to improve liquidity. In Korea, the government is planning to launch two new bond indexes to help investors compare the performance of bonds to that of other asset classes.

In the third tier are Thailand, Indonesia, the Philippines, and China (in that order). All have considerable scope for improving the efficiency of their stock markets. Their corporate bond markets are still very small indeed (although that in Thailand is considerably larger and more diverse than the rest) and their liquidity is very limited. In Thailand, the reform agenda for securities markets, especially bond markets, needs to consider strengthening the primary-dealer system (for example through two-way market-making), improving the valuation of fixed-income securities, and developing the repo markets.

In Indonesia, benchmark issues and the development of a yield curve, along with efforts to strengthen the credit-rating agencies and develop the supporting infrastructure, will help. The government has recently announced additional measures to improve the bond market including: (1) promotion of inter-dealer market transactions to improve price discovery; (2) development of a yield curve through the more regular issuance of benchmark issues across the maturity spectrum; (3) implementation of the Bank Indonesia Scripless Securities Settlement System to enhance the efficiency and reliability of the existing clearing, settlement, and registry system; and (4) development of a transparent and efficient regulatory framework through issuing operational regulations and decrees to support the Government Debt Securities Law.

In the Philippines, large borrowings by the government have crowded out the corporate bond market. Most investors prefer to hold shorter-term instruments, especially since corporate bonds with a maturity of more than one year are subject to a 20 percent withholding tax. Thus the development of longer-
maturity benchmark issues calls for attention, as does the development of supporting infrastructure such as repo markets. (The Philippines has recently announced measures to consolidate issues of government bonds, with a view to building a benchmark.)

In China, whose bond market is the largest, many impediments need to be addressed, including: (1) fragmented regulatory frameworks for bond market development; (2) the absence of internationally credible credit-rating agencies; (3) the lack of transparent and reliable financial information; (4) competing trading platforms (exchange versus over-the-counter); (5) few high-quality issuers, because of administrative and quantitative controls on the volume of corporate bonds that can be issued; (6) the restrictive investment policies of institutional investors; and (7) limitations on the participation of foreign investors.

In China, Indonesia, and the Philippines, further improvements in information disclosure and corporate governance will be important to gain investor confidence. The size and diversity of the institutional investor base is also limited in all three countries, as discussed in the following chapter.
Strengthening the Investor Base

A broader base of investors is a key component needed to further develop the securities markets in East Asia. In particular, it is important to develop a wide, heterogeneous investor base with different preferences and risk appetites. Contractual savings (pension and life insurance) can affect the development of securities. First, they provide institutional arrangements for the accumulation of long-term capital; they may have a longer time horizon than other investors and may therefore require lower term premiums on fixed-income securities. Second, they may be active traders of securities, thereby contributing to the liquidity of capital markets. Also important is the development of a mutual fund industry that can cater to retail investors with different needs and risk appetites; this in turn can significantly contribute to trading and liquidity.

The assets of institutional investors in East Asia have grown over the past few years and at the end of 2004 amounted to US$1.5 trillion, or around 45 percent of GDP in the region as a whole (Table 6.1). Clearly, though, there is considerable variation in the size of the assets across countries—with the institutional investor base still very small as a percentage of GDP in China, Indonesia, and the Philippines.

Against this backdrop, this chapter looks at the role that the contractual savings sector can play in further developing the securities markets in the region. It then looks at the issues pertaining to the development of the mutual-fund industry, which accounts for about half the investor base and is particularly important for the retail investor segment.

Pension Funds

Pension systems in the region differ widely in their institutional design, coverage, maturity, benefit provision, value of assets under management, and asset allocation—all of which can directly affect the actual and potential impact of pension funds on the development of capital markets (Table 6.2).

The pension system in the Republic of Korea is part of a larger social security system that also covers social assistance and social welfare services. As such it is largely composed of public defined-benefit schemes. The National Pension Scheme (NPS)—whose assets are the largest, accounting for about 17 percent of GDP—
serves employees of private companies and self-employed persons. There are three special occupational pension schemes: the Government Employees’ Pension Scheme (GEPS), the Military Personnel Pension Scheme (MPPS), and the Private School Teachers’ Scheme (PSTPS). Korea also has a private pension system composed of voluntary individual pension plans for the general public and a mandatory Retirement Allowance Scheme which, although not a pension plan, functions as a post-retirement protection mechanism for people working in workplaces with more than five employees. Korea’s total pension assets amount to about 21 percent of GDP.

Malaysia’s pension system comprises a series of provident funds, the largest of which is the Employees’ Provident Fund (EPF). As of 1998, EPF accounted for more than 85 percent of the assets managed by the Malaysian provident fund system. Established in 1951, it is one of the oldest pension arrangements in the region (together with Singapore’s) and is a mature system. In aggregate, pension funds in Malaysia amount to about 60 percent of GDP.

In Thailand, the pension system is small but complex, with a large number of schemes covering different portions of the working population but with low overall coverage. Private-sector employees are covered by the mandatory Old Age Pension Fund (OAPF), which is part of a larger Social Security Fund (SSF) managed by the Social Security Office. Central government officials are covered by the Government Provident Fund (EPF). As of 1998, EPF accounted for more than 85 percent of the assets managed by the Malaysian provident fund system. Established in 1951, it is one of the oldest pension arrangements in the region (together with Singapore’s) and is a mature system. In aggregate, pension funds in Malaysia amount to about 60 percent of GDP.

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Pension Fund (GPF), which is an unfunded and non-contributory defined-benefit scheme. Local government officials are covered by their own individual defined-benefit schemes, while private teachers are covered by a separate provident fund. There are also two voluntary schemes for corporations and individuals: provident funds and retirement mutual funds respectively. Total pension assets amount to only around 12 percent of GDP.

Hong Kong (China) recently reformed its pension system with the introduction of the Mandatory Provident Funds (MPF), regulated by the Mandatory Provident Fund Schemes Ordinance. Thus the pension system in Hong Kong (China) comprises both pre-reform institutions and the new MPFs, and in total amounts to about 23 percent of GDP.

Singapore’s pension system relies almost entirely on a single, state-managed mandatory savings system based on individual accounts. This system is administered by the Central Provident Fund, falling under the purview of the Ministry of Manpower. Two other mandatory but non-contributory pension schemes are in operation: one for government employees and one for the armed forces. There is also a voluntary retirement scheme, the Supplementary Retirement Scheme, introduced in 2001. Pension assets amount to 64 percent of GDP.

In the Philippines, the pension system mainly comprises the mandatory, publicly managed Social Security System (SSS), a scaled-premium, defined-benefit scheme that covers most private-sector employees, and the Government Service Insurance System (GSIS), which covers public-sector employees. Though the latter has larger assets, the SSS is more important given its extensive coverage of the private-sector workforce. The assets of these two pension institutions total 10 percent of GDP. Other branches of government, notably the military and police, are covered by a separate system; the Armed Forces of the Philippines’ Retirement and Separation Benefit System (AFP-RSBS). Various individual pension instruments including pre-need pension plans and employer-sponsored provident funds also exist.

Overall, then, pension assets in the region are still relatively small. Only Singapore’s Central Provident Fund (CPF) and Malaysia’s Employees’ Provident Fund (EPF) have assets that exceed 50 percent of GDP. However, since both these schemes also have non-pension related mandates, the amount of assets effectively connected to the pension function is smaller than might appear. Pension funds in the other countries amount to less than 25 percent of GDP. And although Korea, the Philippines, and Thailand have national defined-benefit schemes (which, in view of their long-term liabilities, may be expected to have the strongest demand for fixed-income securities), these pension schemes are relatively immature, and their need for investment instruments is still quite small.

What is the current asset allocation of the pension funds in the region? In general, based on available information, the asset allocation appears to be fairly conservative, being mainly confined to government securities and bank deposits (Table 6.3). The exception is Hong Kong (China), where pension assets are largely held in equities.

### TABLE 6.3 Broad Allocation of Pension Fund Assets (Percent of Total)

<table>
<thead>
<tr>
<th>Economy</th>
<th>Claims on public sector</th>
<th>Claims on financial sector</th>
<th>Corporate bonds</th>
<th>Equity</th>
<th>Foreign sector</th>
<th>Other</th>
<th>% of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>13.5</td>
<td>49.4</td>
<td>23.0</td>
<td>5.2</td>
<td>0.0</td>
<td>8.9</td>
<td>0.05</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>43.5</td>
<td>0.9</td>
<td>11.1</td>
<td>3.2</td>
<td>2.8</td>
<td>38.5</td>
<td>19.8</td>
</tr>
<tr>
<td>Malaysia</td>
<td>38.5</td>
<td>8.8</td>
<td>31.0</td>
<td>19.7</td>
<td>n.a.</td>
<td>2.0</td>
<td>53.7</td>
</tr>
<tr>
<td>Philippines</td>
<td>15.0</td>
<td>--</td>
<td>--</td>
<td>33.0</td>
<td>--</td>
<td>3.8</td>
<td>--</td>
</tr>
<tr>
<td>Thailand</td>
<td>39.9</td>
<td>29.0</td>
<td>14.2</td>
<td>11.3</td>
<td>2.8</td>
<td>2.8</td>
<td>12.7</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>n.a.</td>
<td>20.0</td>
<td>n.a.</td>
<td>54.0</td>
<td>--</td>
<td>26.0</td>
<td>9.5</td>
</tr>
<tr>
<td>(China)</td>
<td></td>
<td></td>
<td></td>
<td>n.a.</td>
<td>n.a.</td>
<td>3.8</td>
<td>62.0</td>
</tr>
<tr>
<td>Singapore</td>
<td>96.2</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Hong Kong (China) figures are for Mandatory Provident Funds only. Figures include domestic and foreign investments. “Other” represents debt securities. Singapore figures do not include the investment schemes. Malaysia figures are for the Employees’ Provident Fund only, and those for the Philippines are for the Social Security System only.

n.a. = not available. -- = no allocation to that category
This allocation pattern is broadly similar to fund allocations in emerging markets more generally, as surveyed by Hess and Impavido (2003), who look at the allocation of assets in 26 public pension funds. It contrasts with the pattern in the Organisation for Economic Co-operation and Development (OECD) countries, where public pension schemes invest 48 percent of their financial assets in equities (domestic and foreign), and 30 percent of their assets in foreign securities.

Thus two main factors currently limit the contribution of pension funds to the development of securities markets. First, pension assets in most countries are still small. Second, the investment allocation of these assets is largely skewed towards government securities and bank deposits. The key questions are therefore:

- What is the potential for increasing the role of pension funds in developing capital markets (while maintaining their primary objective) through an increase in the size of assets?
- Broadening the investment allocations of pension funds could also provide a greater impetus to securities market development. To what extent could a loosening of investment regulations help? What other reforms or changes could be undertaken that would both advance the objectives of pension funds and encourage a greater use of capital markets?
- What other key elements do countries need to strengthen in tandem if investment restrictions are loosened and investment allocations broadened, to help ensure that the safety and soundness of the pension systems are maintained?

### Increasing the size of assets under management

Potentially, pension assets may increase through several channels: (1) if there is scope for extending pension coverage; (2) through the reversal of any taxation regime that may be discouraging savings by taxing them twice; or (3) if there is scope to increase contribution rates. These are discussed in turn.

#### Pension coverage

Pension coverage ratios vary considerably across countries (Table 6.4). The Hong Kong (China) pension system has the highest coverage, at 79 percent of the labor force and 41 percent of the total population. In the Philippines, the coverage of the Social Security System is quite high, at 74 percent of the labor force, but only one third of the members are active contributors. Coverage in Korea is also high; the National Pension Scheme (NPS) is open to all resident citizens aged between 18 and 60 years of age. In 1997, NPS covered only about 37 percent of the labor force, but mandatory coverage was extended in 1999 to the urban self-employed, employees in companies with fewer than five workers, non-income earners, and foreigners, bringing the coverage up to about 73 percent of the labor force. In Singapore, the Central Provident Fund covers 77 percent of the eligible population but only 56 percent of the labor force, largely because foreign workers (who account for around 25 percent of the labor force) are excluded from the covered population. In Malaysia, the Employees’ Provident Fund covers about 45 percent of the labor force. At the lowest end of the spectrum in terms of coverage is Thailand, whose Social Security Fund (SSF) is estimated to cover about 21 percent of the labor force. A few cate-

### Table 6.4 Coverage Ratios of Pension Schemes

<table>
<thead>
<tr>
<th>Economy</th>
<th>Active members (thousands)</th>
<th>Members/covered population (%)</th>
<th>Members/labor force (%)</th>
<th>Members/total population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>14,100</td>
<td>42.7</td>
<td>14.0</td>
<td>6.6</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>17,070</td>
<td>n.a</td>
<td>73.0</td>
<td>37.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5,070</td>
<td>n.a</td>
<td>45.5</td>
<td>19.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>8,925</td>
<td>n.a</td>
<td>74.0</td>
<td>31.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>10,351</td>
<td>95.5</td>
<td>29.0</td>
<td>16.8</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>2,832</td>
<td>95.5</td>
<td>79.4</td>
<td>41.2</td>
</tr>
<tr>
<td>Singapore</td>
<td>1,324</td>
<td>77.0</td>
<td>56.6</td>
<td>31.2</td>
</tr>
</tbody>
</table>

Notes: Korea: National Pension Scheme only. Malaysia: Employees’ Provident Fund only. Philippines: Social Security System and Government Service Insurance System only.
CATEGORIES OF WORKERS WITHIN THE LABOR FORCE ARE EXEMPT FROM CONTRIBUTING TO THE SSF, BUT THE MAIN REASON FOR THE LOW COVERAGE IS THAT A LARGE SHARE OF THE LABOR FORCE WORKS IN THE INFORMAL SECTOR. INCLUDING THE GOVERNMENT PENSION FUND, COVERAGE AMOUNTS TO ABOUT 29 PERCENT OF THE LABOR FORCE.

PENSION COVERAGE IN EAST ASIA IS RELATIVELY GOOD COMPARED TO THE AVERAGE IN EASTERN EUROPE AND, IN PARTICULAR, LATIN AMERICA (WHOSE AVERAGES ARE 63 PERCENT AND 35 PERCENT RESPECTIVELY). BUT COMPARED TO THE MORE ADVANCED LATIN AMERICAN COUNTRIES AND THE OECD, WHERE AVERAGE COVERAGE IS 90 PERCENT OF THE LABOR FORCE, THERE IS SCOPE FOR INCREASING EFFECTIVE COVERAGE IN SEVERAL EAST ASIAN COUNTRIES AND PARTICULARLY IN INDONESIA, THE PHILIPPINES, AND THAILAND.

The same time, it should be recognized that the share of the informal labor force is in these countries is still relatively large, making it difficult to increase coverage until more of these workers are brought into the formal labor market.

Taxation

It is important to give pension savings an equitable and consistent tax treatment in order to promote the accumulation of long-term savings for retirement. International experience—and economic logic—suggests that an appropriate tax treatment is achieved when contractual savings (through social security, occupational pension funds, and life-insurance companies) are taxed only once. There are two alternative ways to achieve this. The first is to collect income tax from the contributions to the contractual savings plan and to exempt from income tax the investment income from contractual savings institutions and from the distribution of plan benefits. This is known as the taxed-exempt-exempt (TEE) alternative. The second is to exempt from income tax both the contributions toward the purchase of a contractual savings plan and the investment income of the contractual savings institution, while making plan benefits liable to income tax—this is known as the exempt-exempt-taxed regime (EET).

These two alternatives are expenditure regimes in which the post-tax rate of return is expected to equal, in present-value terms, the pre-tax rate of return. Therefore, consumption is taxed at the same rate now as in the future. Such a tax regime is usually preferred, as it avoids taxing savings twice and encourages the accumulation of contractual savings for retirement purposes. The choice between the two alternatives is usually dictated by fiscal considerations. TEE and EET regimes are in general not equivalent; other things being equal, taxation will be lower in the latter than in the former, owing to tax deferral.

In practice, the tax treatment of pension savings in East Asia is very generous. In Hong Kong (China), the exempt-exempt-exempt (EEE) rule is generally followed: contributions to the Occupational Retirement Schemes Ordinance ORSO and MPF contributions are tax-exempt. Thailand follows the same rule for its public schemes. In Thailand’s voluntary provident funds, tax exemption ceilings apply to contributions, and benefits arising from the investment of the funds are all exempt from tax. The EEE rule is also applied in the Philippines’ Social Security Fund and Government Service Insurance System, exempting from taxes, fees, or charges all their assets, collected contributions (and all accruals thereto), income and investment earnings, and all benefits. In Korea, pension savings follow the EET rule for the National Pension Scheme and the EEE rule for the Government Employees’ Pension Scheme. In Singapore, the tax treatment of savings through the Central Provident Fund follows the EET rule. Only annuities or lump sums under the Minimum Sum Scheme enjoy tax exemption. In Malaysia, the tax treatment of pension savings in the Employees’ Provident Fund follows the EEE rule with varying deductibility ceilings on contributions.

In sum, taxation does not constrain the growth of pension assets in the region.

Contribution rates

The contribution rates to pension schemes in East Asia are generally quite low, with the exception, at least in nominal terms, in Malaysia and Singapore (Table 6.5). Nominal contribution rates in Hong Kong (China) are only 10 percent of the total wage bill or 1.8 percent of GDP. In Korea in 2004, nominal contributions to the National Pension Scheme amounted to 9 percent of the covered wage bill and hence to only 2.2 percent of GDP; the contribution ceiling is around twice the average covered wage, indicating an effective contribution rate of less than 9 percent of the total wage. In Singapore, employees less than 50 years old contribute 33 percent of...
the relevant wage bill, and total contributions to the Central Provident Fund represent only 8.5 percent of GDP. The special account that is used to finance retirement benefits receives only around 7 percent of GDP. In Malaysia, nominal contribution rates are 23 percent of the covered wage. While contributions are levied on total remuneration, only 60 percent of the proceeds (equivalent to 13.8 percent of the wage bill) are used to finance retirement benefits. As a result, in 2004, total contributions to the Employees’ Provident Fund amounted to 4.9 percent of GDP. In the Philippines, the contribution rate to the Social Security System is only 9.4 percent, which works out to 0.7 percent of GDP. In the Government Service Insurance System, the contribution rate is much higher, at 21 percent (9 percent for employees and 12 percent for employers) and thus, even though the active membership of this scheme is only one fifth of that of the Social Security System, its contribution to GDP is almost as large.

Several countries may have scope to increase their nominal and/or effective contribution rates while keeping their pension systems affordable and able to provide adequate income-replacement rates. It is these two considerations, rather than the need to help develop capital markets, that should drive decision making on pension contributions, even though it is clear that increasing the contribution rates would enlarge the volume of savings that pension systems intermediate.

**Diversifying investment allocations**

Except in Hong Kong (China), regulations on the investment of pension funds are quite conservative and often have quantitative floors for government securities. In Thailand, the investment rules of the Social Security Fund and Government Pension Fund are governed by a ministerial regulation and by the investment policies established by the Social Security Office and Government Pension Fund (GPF) boards. For the GPF, the rules include a 60 percent investment floor in “highly secure securities,” which appear to exclude equity and non-rated corporate debt. Various investment ceilings apply to other securities; for instance, no more than 10 percent of assets can be invested in equity or in foreign assets. On the basis of these rules, GPF designs its strategic allocation of up to 70 percent of assets in cash, deposits, and government fixed-income securities; up to 15 percent in private-sector instruments; up to 5 percent of assets in foreign equity; up to 5 percent in foreign-debt instruments; and up to 5 percent in real estate. Its investment policy does not refer to risk management or benchmarks. For the voluntary provident funds and retirement mutual funds, the investment regulations restrict fund managers to investing in securities approved by the Securities and Exchange Commission (quality assets concept), with investment limits set up by these funds’ own investment policies (diversification concept). The investment limits are designed to ensure that investments in grade securities issued by any company do not exceed 15 percent of net asset value (or 20 percent of net asset value for those financial institutions under Central Bank supervision). A company’s investment in non-investment grade securities may not exceed 5 percent of net asset value and should be lower than 15 percent in aggregate.

**TABLE 6.5 Nominal Contribution Rates of Main Pension Schemes**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Scheme</th>
<th>Employee rate (%)</th>
<th>Employer rate (%)</th>
<th>Credited to retirement account (%)</th>
<th>Contributions from main scheme (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>Jamsostek</td>
<td>2.0</td>
<td>3.7</td>
<td>4.4</td>
<td>0.2</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>NPS</td>
<td>4.5</td>
<td>4.5</td>
<td>9.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>EPF</td>
<td>11.0</td>
<td>12.0</td>
<td>13.8</td>
<td>4.9</td>
</tr>
<tr>
<td>Philippines</td>
<td>SSS</td>
<td>3.3</td>
<td>6.1</td>
<td>9.4</td>
<td>0.7</td>
</tr>
<tr>
<td>Thailand</td>
<td>SSF</td>
<td>3.0</td>
<td>3.0</td>
<td>6.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>MPF</td>
<td>5.0</td>
<td>5.0</td>
<td>10.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Singapore</td>
<td>CPF</td>
<td>20.0</td>
<td>13.0</td>
<td>7.0</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Notes: NPS = National Pension Scheme. EPS = Employees’ Provident Fund. SSS = Social Security System. SSF = Social Security Fund. MPF = Mandatory Provident Funds. CPF = Central Provident Fund.
In Malaysia, the investment policy of the Employees’ Provident Fund (EPF) is regulated by the EPF Act of 1991, the Trustee Act of 1949, and by the EPF policy guidelines set by the fund’s investment committee (Asher 1999). EPF is required to keep 70 percent of its assets in Malaysian government securities, but the government has waived this requirement due to the shortage of these securities. EPF is allowed to invest up to 25 percent of its assets in equities. Foreign investments are also allowed, but at present only a very small share of assets is invested abroad, mainly in Asian bonds and equities.

In the Philippines, the Social Security System (SSS) charter gives the SSS Commission the power to manage and invest the reserve funds in line with the basic principles of safety, good yield, and liquidity. The key ceilings for investment are 7.5 percent for foreign-denominated investments, 40 percent for private securities, and 30 percent for government financial institutions and corporations. The SSS’s actuary is required to submit a valuation report to the SSS benefit program at least every four years. In the Government Service Insurance System (GSIS), the Board has the power to invest the reserves according to parameters identified in the GSIS charter. GSIS must make available at least 40 percent of its funds for loans to its members (the actual proportion is currently around 45 percent)—a requirement that limits the ability of this pension scheme to contribute funds to the development of capital markets. Periodic actuarial valuation is required but no time frame is suggested; GSIS is also required to provide an annual report on all its investments to Congress.

In Korea, no detailed regulation applies to the National Pension Scheme, but the investment universe of the National Pension Corporation (NPC) is defined by the Fund Management Committee according to the National Pension Act and ministerial ordinances. NPC’s investment strategy is regularly reviewed by external professional advisers. Investment regulations allow the corporation itself to manage domestic bonds and equities as well as foreign bonds. The same regulations require NPC to outsource the management of foreign equities, real estate, and private equities. External asset managers are selected through public competitions following the transparency standards contained in the procurement guidelines applicable to public contracts. Consulting firms are used to select foreign asset managers.

The conservative investment regulations generally observed in the region are typical of those governing public pension schemes in emerging economies. Hess and Impavido (2003) survey the investment regulations of public pension funds in 26 emerging markets and find that the use of restrictions and mandates is widespread, with the most common restriction being on foreign investments. They find that 57 percent of the funds face prohibitions on investments abroad, 14 percent face prohibitions on equities, and 19 percent on loans. Some 60 percent of the funds operate under at least one type of mandate. These mandates include requirements to invest in government bonds, whether national, state, provincial, or municipal (48 percent of the funds surveyed); in social projects such as housing (24 percent); and in general economic development (32 percent).

The OECD countries have much looser rules for pension funds. Among 29 OECD countries (excluding Korea), nine have no limits on any investment categories (equity, real estate, bonds, investment funds, loans, or bank deposits). Thirteen have no limits on equity investment, eight have a limit of at least 50 percent, and five have limits between 50 and 25 percent of total assets in equities. Regulations regarding bonds are also flexible, and 22 countries have no limits on bond investments. Nineteen countries have no limits on bank deposits. In five countries that do limit bank deposits, the limits are usually below 20 percent, in recognition of the low profitability of such investments.

As discussed above, in several cases the actual investment allocations of pension assets in East Asia seem to be even more conservative than the restrictions permit. What policy changes could encourage a greater use of securities markets while advancing the goals of the pension funds themselves?

Liability-based management

For public defined-benefit schemes, such as those in Korea, the Philippines, and Thailand, an important beneficial reform would be to account for pension liabilities when pension rights are accrued. Under these countries’ current accounting rules, like those of most other countries in the world, public pension liabilities are not recorded, while public contributions are recorded as government revenues (under social contributions) and pension payments are recorded as transfers to retirees. If pension liabilities were to be accounted for when pension rights accrue—with
the contributions that give rise to such rights treated as financial transactions and pension payments treated as reductions in pension liabilities—this would help to highlight the fact that, from the perspective of the sponsor of a defined-benefit plan, pension-fund management is an asset-liability-management problem, and has long-term risks. Such accounting reforms are now being undertaken in Europe.131

For defined-benefit schemes, the adoption of an asset-liability framework would likely encourage greater investments in securities. Managers of such funds have traditionally focused on investment management, managing their assets against a return benchmark for an asset class. This approach may be appropriate for defined-contribution schemes with no guarantees.132 But it is not appropriate for defined-benefit schemes, given their predetermined liabilities or obligations. Rather the focus should be on liability benchmarking—whereby a liability index is constructed and assets and liabilities are managed with regard to the correlation between the two.

Liability management and investment management can produce very different asset allocations. For instance, in a fund that is managed with regard to return benchmarks, one would expect to observe a large share of equities if mean reversion in equities exists. In a fund managed against a liability benchmark, one would observe a large share of fixed-income instruments of long duration, since the liabilities of a defined-benefit pension fund behave very much like a laddered bond portfolio.133 Pension funds around the world are increasingly focusing on asset-liability management, and in particular, on the relative duration of assets and liabilities.

A revision of accounting standards would require that pension liabilities be measured and evaluated in a way that is consistent with the measurement and evaluation of assets, and this in turn would encourage the adoption of funding rules and strategies for managing assets through liability benchmarking.

Thus the adoption of these accounting rules in Korea, the Philippines, and Thailand, given their public defined-benefit pension schemes, could have an important impact on capital market development, especially on the development of long-duration fixed-income securities. However, as discussed below, for the changed rules to have their full impact would also require an increased supply of long-term bonds. At present, with the relatively short supply of long-term bonds, even a modest increase in the allocation of pension assets into such long-term securities would be problematic, because liquidity constraints could lead to substantial short-term price volatility.

Increased annuitization

For defined-contribution schemes such as those in Hong Kong (China), Malaysia, and Singapore, an argument could be made for increasing the annuitization component. This would improve both the inter- and intra-generational risk-sharing properties of the systems. From the perspective of capital-market development, increased annuitization would expand the potential of the pension system, by increasing the set of professional institutional investors and the demand for long-duration fixed-income securities.

What measures need to be taken in tandem if pension funds are to shift some of their assets away from safer but lower-yielding bank and government instruments toward a more diversified portfolio?

Governance framework

The first set of measures concerns the governance framework of pension funds, which will strongly affect the capacity of the funds to undertake such a diversification.

The governance framework in almost all the pension institutions in the countries covered is based on tripartite, representative boards. Most of these institutions require their board members to have pension and fund management expertise, but their “fit-and-proper tests” are relatively weak. Directors on some boards are not remunerated, so it is difficult for institutions to hire and retain qualified directors. A large share of the directors in most institutions consists of ex-officio government representatives.

The economic literature finds that inconsistent performance of pension funds is associated with poor governance. In more developed countries, a direct link between governance and investment performance cannot be established, although governance indirectly affects performance by determining key investment strategies. Representative governing bodies tend to produce more conservative investment policies than do governing bodies composed of professional and qualified directors.

In developing countries, poor governance often reflects an inability to insulate fund management from political risk. In these countries, this appears to be an important determinant of poor performance.
Two specific governance problems are likely to have a detrimental impact on fund performance in developing countries. The first of these relates to the control structure of public pension plans, which is generally designed to give equal representation to a large number of stakeholders on the board of directors. Multiple and unclear plan mandates induce a strong bias in a fund’s control structure. In practice the presence of social mandates, together with appointment procedures that can be less than transparent, weak “fit-and-proper” tests for directors, and the presence of ex-officio directors, often means that governments have a stronger influence on boards’ decisions than do other stakeholders, including employers and employees. This means that the control structure of public pension funds is in practice not aligned with the residual-claimant structure of the funds.

The second governance problem relates to the collective action of plan stakeholders. Traditional delegated monitoring mechanisms such as takeovers clearly do not apply to public pension funds. This means that public pension boards lack the complementary support of other governance mechanisms that are commonly used in corporations. In public pension funds it is likely that an increased use of independent directors and the introduction of explicit behavioral controls can strengthen the monitoring function of boards. Both of these expedients should reduce the conflicts of interest between directors and management and increase the overall transparency and accountability of fund management to plan members.

The complex stakeholder structure of public pension funds suggests that no single governance framework would meet the needs of all funds. But, as the residual claimants of public pension funds, active members—and taxpayers more generally—should be granted more control over boards’ decisions than they have typically had in the region. This can only be achieved if the law or plan documents specify clear commercial mandates, and if the use of independent, qualified, and professional directors is maximized.

**Risk management**

The second area for supportive policy changes is a strengthening of the framework for managing risks. In all the region’s pension schemes, this framework focuses almost exclusively on asset management, with varying degrees of sophistication depending on the flexibility of the investment rules and the development of local financial markets. Most funds use value-at-risk type risk metrics to measure the sensitivity of investments to price movements. The usefulness of these risk metrics in practice often depends on the liquidity of the underlying instruments and therefore on the quality of the information conveyed by prices. Moreover, only credit risk is managed actively. Interest rate risk is not managed—even in the defined-benefit schemes—although the largest portion of the assets in the portfolios of the surveyed schemes is sensitive to interest-rate risk. Neither is foreign-exchange risk, mainly because thus far only an insignificant proportion of assets are invested abroad.

Hong Kong (China)’s pension sector is an exception in terms of governance and risk management. The governance framework clearly centers on the role of the qualified trustee with strong fiduciary duties. The regulatory framework contains well-defined and strong “fit-and-proper” tests for such trustees. While this feature, per se, does not ensure professionalism, it clearly facilitates accountability and provides an unambiguous legal basis for recourse against any eventual mismanagement.

In Korea, the National Pension Fund has a tripartite governance structure, so there is a potential for politicization of the fund’s management. But the investment-regulation and risk-management standards established by the risk-management committee of the National Pension Corporation have promoted investments in secure and liquid, though not necessarily profitable, assets. The Corporation manages credit risk by limiting its equity exposure to stocks listed on the Korean exchange KOSDAQ, and by limiting its corporate-debt exposure to instruments issued by companies whose credit rating is no lower than “A-” according to at least two domestic credit-rating companies. Individual issuer limits also apply. NPC is restricted from holding more than 10 percent of the number of issues for each equity category of any given issuer, and from investing more than 10 percent of its assets in any given issue. Similar limits guide the management of credit risk arising from foreign issuers. In this case, NPC is also allowed to trade in derivatives to manage the foreign exchange risk. No other forms of risk are explicitly managed.

Malaysia’s Employees’ Provident Fund is also governed by a tripartite board but differs from other funds in the region in that a separate body is charged with setting the investment strategy and developing the risk-management framework. EPF is now developing
and implementing a formal risk-management framework, which is expected to revolve around a value-at-risk system with an optimizing routine to select a more efficient asset allocation. The framework will provide recommendations for a risk-governance structure. EPF is also selecting a system to help in the analysis of market risk.

In the Philippines, the Social Security Commission of the Social Security System (SSS) and the Board of the Government Services Insurance Scheme (GSIS) are constituted according to their respective charters. Members of the Commission are selected by the President of the Philippines, and the broad criteria used for this process are reflected in the limited technical capacity of the Commission to understand complex technical issues and take appropriate policy decisions. The Board of the Government Services Insurance Scheme is also appointed by the President, but the GSIS Charter requires that four of the eight appointee members be from the banking, finance, investment, or insurance sectors and that one be a recognized member of the legal profession. Neither the Social Security Commission nor the Board of GSIS uses a formal framework for risk management. However, the 2006 corporate plan of SSS provides for the establishment of risk-management and compliance units.

Finally, in Thailand, the board of the Social Security Fund comprises representative and ex-officio members. Minimal “fit-and-proper” tests are defined in the Act that governs the appointment of advisers appointed by the Minister of Labor and Social Welfare (who can appoint up to five such advisers as experts without voting powers). However, no such tests are specified for the members of the board. Fund managers focus on asset-risk management and more specifically on credit risk. Important risks, such as inflation or interest rate risks, are not yet managed.

To conclude, therefore, pension funds have the potential to play a greater role in the development of securities markets in the region. As they begin to invest in a wider range of securities, it will be important to ensure that they have appropriate governance structures and stronger technical expertise at their disposal than they do now.

This consideration is particularly important with regard to the use of derivatives. For instance, as pension funds begin to hold greater amounts of foreign securities, they are likely to need to use derivatives for exchange-rate hedging. Other types of derivatives, such as credit-default swaps, which are often held as a means to raise the returns on an asset portfolio, are more complex and their risks are more difficult to assess. Hence their use should only be considered once the requisite risk-management skills have been developed.

**Insurance Sector**

The asset size of the life insurance industry is still relatively small in most countries of the region (Table 6.1). Looking ahead, the potential importance of the insurance industry for capital market development will depend more on the size of assets than on investment regulations, because in general the latter are not binding. Of course, the size of these assets will depend on the scope for further developing the industry’s coverage and products.

**Increasing the size of assets**

The most commonly used measures to assess the level of development of the sector are insurance penetration (measured as the insurance premium as a percentage of GDP) and density (measured as the premium per capita). There is still substantial scope for further development, particularly in China, Indonesia, the Philippines, and Thailand (Table 6.6).

Distribution channels are an important factor in increasing the coverage of insurance. In most insurance markets in the region, distribution has been built on the agency-sales-force model, often extending to large numbers of sales forces (with varying degrees of productivity, reflecting the extent to which agents work full- or part-time). As such, in many countries, a large reach is extended over a small area.

In China, given that country’s size, it is natural that there are more regional differences in access. The China Insurance Regulatory Commission has been encouraging companies to ensure that their services are provided in all areas. For local Chinese companies there is a particular incentive to do so under the liberalization agreements of the market. The more advanced markets in the region have introduced bancassurance (that is, selling of insurance through a bank’s established distribution channels), and although it is early in the experience, and both the authorities as well as market participants are taking a cautious approach, the signs are positive. Micro-insurance operations are also emerging, with examples from Indonesia attracting international attention as case
studies. Diversifying distribution channels is likely to improve access to insurance products and to act as a vehicle for the sector’s growth, enhancing its role as an institutional investor.

Growth in the range of insurance products offered is likely to further the sector’s development and growth in assets. A relatively wide range of products, both savings and protection, are already available in all the markets. Savings products in both traditional forms and the more recently unbundled forms are present, along with various forms of pure mortality cover. Insurance for personal accident and health is becoming increasingly popular. Non-life insurance products are available, covering the full range of risks, to support commercial and domestic customers. Across the region, insurers show a capacity for product innovation, so the further development of products in each market may be expected to take its course and enlarge the insurance companies’ role as institutional investors.

### Increasing allocations to securities markets

A potentially important impetus to capital market development might come from consolidation of the insurance industry. In several countries in the region, the industry consists of many small players, in part because legal minimum capital levels for entry into the industry are low by international standards (Appendix Table 6.1). The small size of these companies prevents them from playing an important role in capital markets.

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**TABLE 6.6 Indicators of Development of the Insurance Sector**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>China life</td>
<td>0.8</td>
<td>6.1</td>
<td>1.1</td>
<td>9.5</td>
<td>2.2</td>
<td>27.3</td>
</tr>
<tr>
<td>non-life</td>
<td>0.6</td>
<td>4.7</td>
<td>0.7</td>
<td>5.7</td>
<td>1.1</td>
<td>12.9</td>
</tr>
<tr>
<td>total</td>
<td>1.4</td>
<td>10.8</td>
<td>1.8</td>
<td>15.2</td>
<td>3.3</td>
<td>40.2</td>
</tr>
<tr>
<td>Indonesia life</td>
<td>0.6</td>
<td>6.2</td>
<td>0.5</td>
<td>4.0</td>
<td>0.6</td>
<td>7.5</td>
</tr>
<tr>
<td>non-life</td>
<td>0.7</td>
<td>6.9</td>
<td>0.6</td>
<td>4.6</td>
<td>0.7</td>
<td>8.1</td>
</tr>
<tr>
<td>total</td>
<td>1.3</td>
<td>13.1</td>
<td>1.2</td>
<td>8.6</td>
<td>1.3</td>
<td>15.6</td>
</tr>
<tr>
<td>Rep. of Korea life</td>
<td>11.6</td>
<td>929.3</td>
<td>9.9</td>
<td>935.6</td>
<td>6.8</td>
<td>1006.8</td>
</tr>
<tr>
<td>non-life</td>
<td>3.8</td>
<td>303.0</td>
<td>3.2</td>
<td>298.5</td>
<td>2.8</td>
<td>412.5</td>
</tr>
<tr>
<td>total</td>
<td>15.4</td>
<td>1,232.3</td>
<td>13.1</td>
<td>1,234.1</td>
<td>9.6</td>
<td>1,419.3</td>
</tr>
<tr>
<td>Malaysia life</td>
<td>2.2</td>
<td>99.0</td>
<td>2.1</td>
<td>86.4</td>
<td>3.5</td>
<td>167.3</td>
</tr>
<tr>
<td>non-life</td>
<td>2.2</td>
<td>99.8</td>
<td>1.6</td>
<td>64.6</td>
<td>1.9</td>
<td>89.3</td>
</tr>
<tr>
<td>total</td>
<td>4.4</td>
<td>198.8</td>
<td>3.7</td>
<td>151.0</td>
<td>5.4</td>
<td>256.6</td>
</tr>
<tr>
<td>Philippines life</td>
<td>0.7</td>
<td>8.0</td>
<td>0.8</td>
<td>7.5</td>
<td>0.9</td>
<td>9.4</td>
</tr>
<tr>
<td>non-life</td>
<td>0.8</td>
<td>9.1</td>
<td>0.6</td>
<td>6.0</td>
<td>0.6</td>
<td>6.1</td>
</tr>
<tr>
<td>total</td>
<td>1.5</td>
<td>17.1</td>
<td>1.4</td>
<td>13.5</td>
<td>1.5</td>
<td>15.5</td>
</tr>
<tr>
<td>Thailand life</td>
<td>1.2</td>
<td>26.2</td>
<td>1.5</td>
<td>29.8</td>
<td>1.9</td>
<td>50.8</td>
</tr>
<tr>
<td>non-life</td>
<td>1.2</td>
<td>26.3</td>
<td>1.0</td>
<td>19.4</td>
<td>1.6</td>
<td>41.4</td>
</tr>
<tr>
<td>total</td>
<td>2.4</td>
<td>52.5</td>
<td>2.5</td>
<td>49.3</td>
<td>3.5</td>
<td>92.2</td>
</tr>
<tr>
<td>Hong Kong (China) life</td>
<td>2.4</td>
<td>646.3</td>
<td>3.7</td>
<td>892.9</td>
<td>7.9</td>
<td>1884.3</td>
</tr>
<tr>
<td>non-life</td>
<td>1.1</td>
<td>299.2</td>
<td>1.1</td>
<td>269.1</td>
<td>1.4</td>
<td>332.9</td>
</tr>
<tr>
<td>total</td>
<td>3.5</td>
<td>945.5</td>
<td>4.8</td>
<td>1,162.0</td>
<td>9.3</td>
<td>2217.2</td>
</tr>
<tr>
<td>Singapore life</td>
<td>3.8</td>
<td>989.0</td>
<td>3.2</td>
<td>732.1</td>
<td>6.0</td>
<td>1483.9</td>
</tr>
<tr>
<td>non-life</td>
<td>1.3</td>
<td>338.3</td>
<td>1.0</td>
<td>234.2</td>
<td>1.5</td>
<td>365.5</td>
</tr>
<tr>
<td>total</td>
<td>5.1</td>
<td>1,327.3</td>
<td>4.2</td>
<td>966.3</td>
<td>7.5</td>
<td>1849.4</td>
</tr>
</tbody>
</table>

Source: Swiss Re, various issues.
The Korean market is one of the few where the number of companies is not very large and the Herfindhal index is relatively high, suggesting that fragmentation is not an issue either in the life or non-life sectors (Table 6.7). By contrast, in Malaysia, the Philippines, and Thailand, a rationalization of the non-life sector might be beneficial, given the number of companies and the Herfindhal index value, while in Indonesia rationalization might be expected in both the life and non-life sectors. In these countries, consolidation would produce companies of a larger average size, better able to invest significantly in the securities markets.

In some countries, loosening investment restrictions for the insurance industry could help to stimulate the contribution of the industry to capital-market development. Investment regulation in the region ranges from an absence of specific rules in Hong Kong (China) to a very restrictive regime in China, which sets out limits for sectors and asset classes. Between these two approaches is the approach of permitting investments in a broader range of assets, but requiring additional capital for particular asset exposure, either explicitly or through admissibility rules. Where there are specific quantitative rules, they tend not to be fully prescriptive for all types of asset risks, but to set selective limits either at the global portfolio level or for specific issuers (and rarely both for every type of asset). The scope of investment regulations for life insurers is summarized in Table 6.8.

Several jurisdictions are moving to introduce more risk-based capital requirements. This, in turn, can be expected to enhance risk-management skills over time and to allow countries to move to less restrictive investment regimes. Focusing on capital regulations will also likely lead to consolidation of the industry in those countries that currently have a large number of small entities.\(^{135}\)

Korea, the Philippines, and Thailand have indicated that they will move toward risk-based regimes. Malaysia has indicated that it will introduce a system of dynamic solvency testing. The move towards risk-based capital requirements reflects a keen interest throughout the region in strengthening insurance-solvency regimes in line with emerging international standards, and a concern that the pre-reform capital levels may not be adequate in many jurisdictions. A more risk-based regime would of course raise demand for technical skills in both the supervisory authorities and companies in many countries, which would need to be met as the industry develops. In sum, a smaller number of larger companies, coupled with a more risk-based capital regime and increased technical skills, would likely enhance the use of risk-management techniques. In turn, this would facilitate the move to a less prescriptive investment regime.

### Mutual Funds

Given the important role that the mutual fund industry can play in deepening securities markets, developing the industry has become an important policy objective in the region.\(^{136}\)

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**TABLE 6.7 Indicators of Concentration in the Insurance Sector**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Year</th>
<th>Herfindhal index</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Life</td>
<td>Non-life</td>
</tr>
<tr>
<td>China</td>
<td>2004</td>
<td>1,803</td>
<td>3,684</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2004</td>
<td>811</td>
<td>478</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>2004</td>
<td>1,846</td>
<td>1,622</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2003</td>
<td>1,683</td>
<td>460</td>
</tr>
<tr>
<td>Philippines</td>
<td>2004</td>
<td>1,439</td>
<td>424</td>
</tr>
<tr>
<td>Thailand</td>
<td>2004</td>
<td>2,527</td>
<td>439</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>2005</td>
<td>926</td>
<td>229</td>
</tr>
<tr>
<td>Singapore</td>
<td>2004</td>
<td>1,989</td>
<td>588</td>
</tr>
</tbody>
</table>

*Note:* The Herfindhal index is defined as the sum of squares of the market shares of each individual firm. It ranges from 0 (competitive or equally distributed) to 1 (monopolistic or dominated by one firm). Alternatively, it can range from 0 to 10,000, if percents are used as whole numbers (e.g., 75 instead of 0.75). World Bank comparisons across markets suggest that a Herfindhal index value of around 1,200 to 1,500 would be the natural range for non-life insurance markets, and because of greater economies to scale and lower concerns of risk aggregation, around twice that level for life insurance.

— = not available.

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\(^{135}\) East Asian Finance
Mutual funds have grown quickly in most countries in the region, albeit starting from a relatively small base. Except in Thailand, their growth was faster than 20 percent during 2003–04 in all countries, with China and Indonesia seeing the highest growth (89 percent and 49 percent respectively). By the end of 2004, East Asia accounted for about 10 percent of the US$16,152 billion global net asset value of mutual funds (according to the Investment Company Institute). Assets under management were the largest in Hong Kong (China) (where they amounted to US$465 billion or 285 percent of GDP), and Singapore (US$349 billion or 326 percent of GDP). Both Hong Kong (China) and Singapore have set out to be regional centers and a large proportion of the funds in both countries comes from abroad, by contrast with other countries in the region, where the bulk of the money invested is derived locally. After Hong Kong (China) and Singapore, assets under management are largest in relation to the domestic economy in Korea and Malaysia (20 and 25 percent of GDP respectively), followed by Indonesia, China, and the Philippines.

A wide range of mutual fund products with different investment objectives and strategies is available to retail investors in Hong Kong (China), Korea, and Singapore. The variety of fund products in China, Indonesia, Malaysia, and Thailand is still relatively limited, although many new collective investment products have been introduced in recent years. Figure 6.1 shows the broad asset-class exposure across the region.

Overall, despite its recent growth, the mutual-fund industry has scope for much further development in most countries in the region, both in size and product diversity. But, as discussed below, the dramatic growth in assets under management has already been accompanied by problems in some countries, notably Indonesia. Thus it is also important that future growth take place within a well-regulated environment that attracts investors.

### Developing the mutual funds industry on a sound basis

The region’s experience points to four key elements that need to be put in place to develop the mutual fund industry on a sound basis.

#### Ensuring an appropriate and adaptable regulatory framework

When drafting fund laws and enabling different types of funds to flourish, it is important to consider what purposes the funds are to fulfill and to choose the structures that are best suited to local conditions. For example, is the primary purpose of the law to enable investments in liquid securities, or to enable investments in illiquid assets such as real estate? Is it

<table>
<thead>
<tr>
<th>Economy</th>
<th>Scope of investment regulations for life insurers</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Investments are subject to specific limits. These are being gradually relaxed from a situation where insurers could only invest in bank accounts and government bonds to one that now permits some foreign investment, corporate bonds, infrastructure bonds (through trusts and permitted vehicles), mutual funds, and domestic equities.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Limits apply to specific issuers for deposits, publicly quoted shares, bonds and notes, and investment funds. Overall limits apply to foreign equities and bonds, direct investment, real estate, and mortgages.</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>Recent amendments have relaxed a system that had quantitative limits addressing both spread and portfolio composition. Remaining limits concentrate on global maximums, with the exception of a limitation on stock concentration by issuer.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Insurers have a minimum 25 percent obligation to invest in government securities. While other investments are not subject to specific restrictions, the interaction with the solvency regime is relevant. The authorities, for example, recently altered the limit that credit facilities, including loans and private debt instruments, can take into account for the purpose of meeting the minimum solvency requirements.</td>
</tr>
<tr>
<td>Philippines</td>
<td>Specific limits on admissibility apply. Issuer-based limits apply to bonds, debentures, and equity issues, and a global limit applies to real estate. There is an obligation to invest 25 percent of the minimum paid-up capital in government bonds.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Detailed limits apply, setting entity level, global portfolio, and, in some cases, combined limits.</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>The authorities look to the company to form a prudent investment policy taking into account the advice of the actuary. There are no specific rules or prohibitions relating to particular investment classes.</td>
</tr>
<tr>
<td>Singapore</td>
<td>Insurance assets supporting domestic business are subject to regulations and quantitative global limits as well as limits relating to individual concentrations.</td>
</tr>
</tbody>
</table>
to enable institutional investment in private equity or venture capital? Or, as is likely to be the case in most countries, is it a combination of these objectives, some more applicable now and others more applicable in the future? And clearly the laws need to be reasonably up to date if they are not to retard the development of the asset management industry.

A key point to note in this regard is that, while financial markets innovate constantly, laws once passed are difficult and time consuming to change. Though laws are needed in order to provide a clear legal basis for fund operation and regulation, it is preferable that they deal only with issues of principle and leave the details to subsidiary legislation. To accommodate changes such as new forms of funds or to allow for new investment powers such as derivatives, regulations can be adapted more easily than laws, but they remain governed by the key principles set out in the law. Hong Kong (China) and Singapore have followed this approach. In other countries, including the Philippines (Box 6.1), outdated legislation has sometimes hindered the development of the industry.

The liquidity of assets has a bearing on whether to allow closed-end or open-end funds. As was the case in China and Thailand, many emerging markets start with closed-end funds, which are a suitable choice in markets that are narrow and illiquid. However, when these funds are launched, they start at a premium, as investors treat them as another initial public offering (IPO); they then fall dramatically in net asset value (by as much as 50 percent in China) as the IPO fever wears off. This leads to pressures to create open-end funds in which investors buy and sell fund units or shares at their net asset value. However, it is difficult to create open-end funds that allow investors to buy and sell every day if the assets in which those funds invest cannot also be easily bought and sold in reasonable amounts.

Problems therefore arise with a rapid expansion of the open-end fund sector if there is an inadequate supply of suitable assets in which to invest. This tends to lead investors into lower-quality, more risky assets as the best assets get bought up, leading to unrealistically low yields and forcing managers to relax their criteria for asset selection in order to continue providing the kind of returns that investors demand. In turn, such assets tend to be harder to value and difficult to sell in times of need.
Establishing and maintaining investor confidence

The most important factor in promoting the growth of the asset management industry is probably investor confidence. Ensuring investor confidence requires a focus on several aspects:

Clear legal definitions of the legal form of the fund, the primary duty of fund managers and custodians to act in the interests of fund investors, and the requirements for third-party supervision of the fund manager’s conduct of the business of the fund. The choice of legal structure in which funds are permitted to be formed—whether as companies, trusts, or contractual pools—will partly depend on the legal environment within which they are created. Generally, countries with common-law systems will specify funds formed as trusts, while civil-code system countries enable a contractual form; both legal systems enable funds to function as companies (Table 6.9).

The key difference between these legal structures is in the form of governance. A fund formed as a company will usually have a board of directors. These directors have a fiduciary duty to the shareholders of the company and it is they who appoint the manager of the fund and the custodian to provide the services to the fund, and who oversee the contractors’ conduct of the fund’s business. Their duties therefore are more wide-ranging than those of an ordinary company director.

In a fund formed as a trust, the fund trustee has a fiduciary duty to the investors in the fund, who are technically beneficiaries of the trust. The trustee has the task of overseeing the conduct of the business of the fund by its manager and of protecting investors’ interests. Generally, fund law or regulation will also require the manager of the fund to act in the interests of fund investors.

A fund formed under a contractual pool has neither directors nor trustees—and hence no entity with a fiduciary duty to the fund’s investors, unless such duties are placed upon the manager and the custodian of the fund by law and regulation. It is thus extremely important to specify these duties when drafting the laws and regulations governing such funds. Generally this is done by requiring both manager and custodian to act in the interests of the fund investors and by making the custodian responsible for overseeing the manager’s conduct of the business of the fund.

In those East Asian legal environments where the fund has a trustee (Hong Kong [China], Singapore, and Malaysia), the law and precedent of the trust ensure that the trustee will automatically act as

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**BOX 6.1 In the Philippines, Outdated Legislation Is Delaying the Growth of the Investment Fund Sector**

The Philippines has been slow to revise its legislation on investment funds, despite the fact that the existing law is acknowledged to be out of date (for instance the Medium-term Philippine Development Plan 2004–10 recognizes the need to implement changes in the law). Currently the asset management industry rests on a law dating from 1960, RA 2629, otherwise known as the Investment Company Act (ICA) and the Implementing Rules and Regulations of the ICA, dating from 1989. Among the problematic aspects of the law are a lack of clear requirement for the segregation of fund assets; lack of regulation of investment advisers to the funds; lack of requirements for custodial supervision of the operation of the fund, and a lack of clear provision for valuation and pricing controls. These funds do not seem to enjoy the confidence of investors, many of whom prefer to invest funds domiciled in other jurisdictions.

A draft of a completely new law, the Revised Investment Company Act, which has as its intention “to revise RA 2629 to provide the legal framework and environment for capital markets development through mutual funds” was originally proposed in 2001 but remains pending.

Source: Cadogan Financial 2006.

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**TABLE 6.9 Governance Structures of Mutual Funds**

<table>
<thead>
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<th>Corporate</th>
<th>Contractual</th>
<th>Trust</th>
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<td>Thailand</td>
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<tr>
<td>Singapore</td>
<td>Y\sup*</td>
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</tbody>
</table>

Source: Cadogan Financial 2006.

Note: a. There may be limitations on the ability to publicly offer these funds—trusts are the main vehicle for domestic retail investment.
a watchdog for investors’ interests. Where funds are contractual (as in China, Indonesia, Korea, and Thailand) the duties of the custodian as a watchdog need to be defined in the law. Although these duties are hinted at in China, Indonesia, and Korea, none of these three countries has laws that give sufficient strength to custodians’ responsibilities, so investors are weakly protected at this level. Thailand’s law provides for a trustee that is separate from the custodian, whose duties are solely supervisory. In the Philippines, funds are corporate in nature and therefore the role of the fund directors should be similarly emphasized.

**Rights of investors.** It is also crucial for investor confidence that the rights of investors be well defined, particularly rights to redemptions and voting where relevant. One reason why problems have arisen in Indonesia is that the Capital Markets Law of 1995, which has been under review for some time, does not adequately specify the nature of a contractual fund and the rights of its unit holders. Although both corporate and contractual funds are allowed under the law, only contractual funds have come into existence in Indonesia, partly because they are less cumbersome and quicker to create for managers and more flexible and more tax-efficient for investors than corporate funds.¹⁴¹ The law and regulations have been based on the assumption that the corporate type of fund would be the key form, and as a result have focused on specifying these funds, rather than the contractual form. This is a key weakness, since while an investor in a corporate fund buys shares and has all the rights of a normal shareholder, a purchaser of a unit in a contractual fund has no rights unless these are specified in law and regulation.

**Ensuring equitable treatment of incoming, ongoing, and outgoing investors** in open-ended funds through valuation, pricing, and issue and redemption rules is important. Equitable treatment of fund investors is a key principle that should be established in fund laws, but often is not. Fund managers can favor one set of investors over another, for instance by tipping off favored clients (often institutional clients or clients of affiliates of the fund manager) when they know net asset values are likely to fall, so the latter can redeem their holdings. It is also important to set rules that ensure investors are treated equitably in the valuation of assets and pricing of funds.

The valuation and pricing of units or shares in any collective investment scheme, whether it is a common mutual fund or a unitized pension scheme, is the most crucial of all administrative operations and, if not done correctly, it will damage at least one category of investor through dilution. This is what happened with the collapse of fixed-income funds in Korea in 1999 (Box 6.2).¹⁴² Since then, however, with the adoption of mark-to-market valuation for all funds (from July 2000), regulations have been strengthened, including to enhance investor protection, and this is helping to restore investor confidence.

**Disclosure to investors** is crucial. Potential and existing investors should receive statements that give clear and fair information, including the prospectus, fund performance, fund charges and prices, and audited accounts. Here, comparability is key.

China, whose asset-management industry is very new, is giving increasing attention to protecting investor interests. Investors have the right to sue managers and/or custodians if incomplete disclosure leads to investor losses. Unit holders also have the authority to determine, for example, the renewal or early termination of fund contracts, increases in compensation to fund managers and custodians, and the replacement of fund managers and custodians. The recently passed Securities Investment Fund Act emphasizes the interests of investors more strongly than previous legislation.

In Malaysia, the supervisory authority has emphasized the relationship between disclosure policy and the development of the mutual fund industry and, as mentioned earlier, has adopted disclosure-based regulations to protect investors. There are also self-imposed regulations, with investment companies asking actuarial firms to assess their financial situation and inform investors.

Hong Kong (China), as an international financial center, strongly enforces transparency by disclosing the monitoring process, the information on the underlying funds, the relationship with the prime brokers, and the independence of the valuation agents. Singapore, too, has taken a disclosure-based approach under which investors make decisions based on information disclosed by fund managers, rather than using the merit-based approach (under which the regulators determine the suitability of the securities being made available to the public). Singapore also gives investors the right to require any reasonable information to make decisions. The Monetary Authority of Singapore has published disclosure checklists based on the International Organization of Securities Commissions...
Disclosure requirements vary across the region. They are strong in China, Hong Kong (China), Korea, Malaysia, and Singapore, and weakest in Indonesia and the Philippines. Specific rules governing investment advice are needed, to ensure that proper information and advice are given. An area in which regulation is often weak—as in China and Indonesia—is the regulation of the distribution channels that sell investment funds to the public. Thailand has recognized this weakness and addressed it in revised and new regulations issued in the late 1990s. While laws usually categorize fund shares or units as securities, thus making their public offering subject to laws or regulations governing securities—or sometimes specific funds—it is common to find that individuals who sell funds are only required to have the bare minimum of knowledge or expertise. Responsibility for their conduct and accountability for their failures are often also poorly defined.

Unambiguous rules are needed to identify different categories of funds, and steps should be taken to avoid any portfolio abuses. Often longer-term bond funds, which are exposed to market volatility, have been sold as equivalents to bank accounts but with a better return. (This has been the case in China, Indonesia, and Korea in the past.) Then, when interest rates rise and fund unit proceeds fall, investors panic, and the result is a wave of redemptions leading to liquidity problems.

To avoid such problems calls for clear categorization of funds; disclosure of associated risks; and a rigorous regulatory regime, covering both firms and individuals that sell funds to investors, that sets standards for responsibility, competence, and the conduct of business. In this context, the mutual fund industry’s code of ethics and standards of professional conduct are an important part of investor protection, particularly in view of the regional trend to replace the traditional merit-based method of regulation with the market-based method. A code of conduct upholds the discipline of market players, especially the asset-management companies. It sets out general principles and minimum standards of practice to guide the conduct of managers in the best interests of investors and the asset-management industry. In some jurisdictions, such as Hong Kong

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BOX 6.2 Collapse of Fixed-Income Funds in Korea in 1999

Korean mutual funds suffered a massive crisis of confidence immediately following the collapse of the Daewoo chaebol in July 1999. Managers and investors in fixed-income funds (within Daewoo and outside), which had been substantial holders of Daewoo debt, realized that Daewoo’s default would reduce the value of their investments and rushed to redeem their shares. Funds were left with Daewoo bonds (and other corporate paper that could not be reliably valued, given the turbulent conditions of markets), which could not be sold to raise the money needed to pay investors redeeming their shares. This series of events exposed endemic flaws in both the regulatory system and in the way the funds had been managed and sold.

In particular, cost-based asset valuation had allowed unit prices to be manipulated to offer yields apparently higher than those available in the market, and high-pressure sales of units by brokers, coupled with “promises” of no loss, misled investors into believing that potentially volatile assets were no more risky than bank deposits. These factors—coupled with weak supervision, which had allowed asset-management companies to break the law—had led to a rapid increase in assets under management.

The government had to step in to prevent a systemic collapse of the bond market, and suspended those funds that had invested high percentages of their assets in Daewoo paper. Investors were only permitted to redeem in stages, according to a schedule that would permit an orderly disposal of assets. This bailout was costly to taxpayers, and fund management and securities companies, who were the principal owners, were compelled to contribute substantially to the cost of shoring up the industry.

The Korean government has since undertaken significant reforms to strengthen the mutual fund industry. From July 2000, mark-to-market valuation was adopted for all funds. Legislation, which had previously been fragmented, was substantially revised. The Indirect Investment Asset Management Business Act was promulgated in 2003 to consolidate and integrate the asset-management industry and enhance investor protection. Nonetheless, investor confidence took time to be restored.

Source: Cadogan Financial 2006.
(China), Indonesia, Singapore, and Thailand, codes of ethics and standards are issued by the supervisory organization. In countries such as Korea and Malaysia, they are issued by an association of investment-management companies as a form of self-regulation. In the Philippines, no explicit code of conduct exists.

**Adopting a supportive policy environment**

While enhancing investor confidence is a key element, the development of the industry can be further facilitated, or deterred, by government policies.

First, government commitment to develop the mutual fund industry and ensure consistency of policies is fundamental. A reputable, flourishing industry is unlikely to exist when the environment for developing funds—and their returns—is subject to arbitrary governmental or regulatory decisions.

Second, to succeed, mutual funds must be fiscally competitive with other products. Tax efficiency is an important factor for investors comparing the merits of an investment fund with those of a more familiar bank account or savings account, or saving through insurance or a pension fund. If investment funds are to thrive, they must face taxation no higher than on direct investment in the same underlying assets or in competing savings vehicles.

Third, establishing a competitive environment while maintaining adequate entry and capitalization requirements can help to diversify products and enhance demand. As noted above, product diversity in mutual funds is still limited in most countries in the region. Since retail investors’ goals and risk preferences vary widely, the ability to develop and offer products that match diverse target levels of risk and return is crucial for the growth and health of an asset-management industry, even a mature one. A good example is the recent introduction of the retail hedge fund in Hong Kong (China). In countries where the range of collective investment products is still relatively limited, such as China, Indonesia, Malaysia, the Philippines, and Thailand, the range of instruments that funds can invest in needs to be broadened—subject, clearly, to considerations of availability and liquidity, as mentioned earlier. Enhancing competition among fund-management companies is likely to provide an important impetus to the development of new products and growth of the asset-management industry.

Professionalizing advisory services can help in establishing competition in distribution channels. Throughout the region, banks are playing a strong and growing role in mutual fund sales. In both China and Indonesia, for instance, banks are estimated to sell 80 percent or more of the funds. Clearly, banks that have nationwide distribution facilities and existing customer bases are ideally placed to facilitate fund sales. Dominance by any one distribution channel enables that channel to extract more fees, commissions, and other benefits from fund managers who need the access it provides. This will not necessarily benefit consumers, who are likely to end up paying for this through higher annual sales fees or higher annual management fees.

Distribution channels are not easy to diversify, however. One possibility is to professionalize financial advice. If successful, this effort can give rise to a new distribution channel: firms whose sole business it is to undertake this activity.

To professionalize financial advice entails creating a regulatory regime that governs those agents who are permitted to give financial advice, the qualifications they must hold, and the way in which they conduct their business (including finding out about clients’ financial positions and needs). It also requires standardized disclosure of commissions and fees received. Under such a regime, agents who sell funds—whether within banks or outside them—are constrained to identify their clients’ needs and meet them in the best way possible at a stated cost that can be compared with that of other providers. This strategy is currently being considered in China. The provision of financial advice is only weakly regulated in many of the region’s economies; Singapore and Hong Kong (China) are the strongest in this respect.

Hong Kong (China) and Singapore have gone further in facilitating the development of the asset management industry. They have structured government policy so as to encourage fund managers to manage funds from their own domiciles, even if those funds are in other countries. In Singapore, for instance, the Central Provident Fund (CPF) has committed itself to outsourcing the investment management of more than S$20 billion of its own assets, and has also allowed its members to select certain unit trusts to back their own funds (a similar concept to the 401k plan in the United States).

**Ensuring regulations are enforced**

In ensuring the stability, and hence ultimately the sustained development, of the asset-management
industry, rules and regulations must be equitably enforced. The high-profile actions of the New York Attorney General in 2003, and subsequently of the US Securities and Exchange Commission, in relation to the U.S. mutual fund scandals associated with late trading and market timing, illustrate the importance of equitable enforcement for the stability of the industry: not only were the companies concerned fined and made to compensate investors, but they also suffered a loss of business.

There are many examples of a reasonably adequate regime being poorly enforced, including one from Indonesia, where a problem with fixed-income funds was in part exacerbated by poor enforcement (Box 6.3).

A further factor to bear in mind is that regulators need to enforce rules in a manner proportionate to the damage that a breach of the rules is likely to inflict on investors’ interests. Admittedly, it is easier for regulators to focus on easily identifiable but low-impact regulatory breaches such as small arithmetical errors or gaps in reports or late filings, than to address much more fundamental problems such as incorrect or manipulated asset valuation, which may require high-profile and difficult decisions to be taken. But it is the latter that cause greater damage to investors, and imposing only small fines and modest sanctions for such behavior can bring the regulations themselves into disrepute.

Several factors may deter regulators from tackling substantive issues. The first is a lack of industry knowledge and experience, which is natural given that regulators are often drawn from civil-service backgrounds, but difficult to address unless salaries can be made sufficiently attractive to attract practitioners to work in regulatory agencies. The second is a lack of protection from legal action; this can be addressed by laws granting suitable immunity. Third

**BOX 6.3 Enforcement Failure: Fixed-Income Funds in Indonesia**

Fixed-income funds under management in Indonesia fell by 73 percent in 2005. Up until then, with declining interest rates, sales of fixed-income funds had been rising strongly, and at the end of 2004, near the peak of the market, they represented nearly 82 percent of total assets under management (valued on a cost/accrual basis). The rise reflected a steady increase in unit values, but also the fact that interest from fixed-income funds was taxed less heavily than bank interest. Funds were therefore offering higher interest than banks (whose staff sold most of these funds to investors). It is also likely that the sales persons implied that these funds were actually like bank accounts (where capital was not at risk) and with a better rate of interest.

New regulations by Bapepam, applicable from January 2005, required fixed-income funds to mark their assets to market rather than valuing them on a cost/accrual basis. In January, the largest fund-management company moved its fixed-income funds to a mark-to-market valuation system and suffered major redemptions as investors panicked when the value of the units fell.

From March 2005 onward, as the Indonesian economy and currency came under some pressure, the Bank of Indonesia raised interest rates. Those funds that marked to market saw their units fall in value and sustained substantial redemptions as a result. Those funds that did not do so—despite the regulatory requirements—saw continuing sales. However, particularly strong interest rate hikes in August and September and the level of redemptions on funds financially forced more funds to move to mark-to-market valuation, since they could not sell their bonds at the valuations at which they had been holding them. Overall, the values of fixed-income funds fell by 85 percent during the year, with around 60 percent of the fall due to redemptions and the rest due to reduced valuations.

The new mark-to-market regulations that were applicable from January 2005 were demonstrably not met by many market participants during much of that year. It did not appear that any regulatory action was going to be taken until, following the redemption crisis, a Parliamentary committee instigated an investigation of four market participants by the regulator, which subsequently fined them for various infractions. No action appears to have been taken yet against other market participants that may also have failed to comply. Thus not only was enforcement late, it may also have been uneven. There is a danger that this will reduce market participants’ confidence and hence their commitment to the market.

It is probable that a high level of redemptions from fixed-income funds would have occurred anyway, had the regulators forced market participants to comply with mark-to-market requirements beginning in January, since the funds had been misrepresented as secure investments since neither sales agents nor investors understood fixed-income funds and their associated risks. To avoid the same problems in the future, it is important that sales agents’ competence be improved, along with fund categorization and disclosure, particularly of the risks associated with the investments.

is a fear of political interference or of displeasing powerful market participants who could separate them from their jobs. A high turnover of regulatory staff, who are commonly rotated across departments, ministries, or agencies, or headhunted by the market, can also reduce an agency’s capacity to retain the necessary knowledge and expertise and thus the capacity to regulate effectively.

A final factor that can seriously compromise effective enforcement is fragmented regulatory mandates. Often the regulatory responsibilities for mutual funds, unitized pension systems, and unit-linked life assurance are divided between several regulators, on the assumption that the products offered are very different. This does not allow economies of scale to be reaped by asset managers who may have to obtain several licenses to operate different funds that are essentially the same, and who may even need to create different companies. If, for example, mutual funds exist, and are generally regarded as well regulated, it would make sense to use them as investment components for defined-contribution pension schemes, as happens to varying degrees and in varying ways in Hong Kong (China), Malaysia, and Singapore. This would enable managers to pass on the benefits of economies of scale to investors by lowering management costs. It would also bring savers who hold units through a pension scheme and who have longer-term investment horizons (since they cannot usually redeem until retirement) into the market, providing greater stability to the mutual fund industry.

The securities regulator usually regulates the activity of selling securities, which usually include fund units or shares. But it can be difficult for the securities regulator to exercise effective oversight over sales of mutual funds by banks, which are regulated by the central bank or banking regulator. This problem arises particularly where the securities license is held by the bank itself, rather than by a separate subsidiary that is directly licensed by the securities regulator and therefore answerable to it.

Korea, the third-largest market in the region, has recently overhauled various laws governing asset management and in 2003 introduced a single Indirect Investment Asset Management Business Act, with the goal of enabling all asset-management activities to be regulated at an equivalent level by unifying all asset-management-related regulations. Hong Kong (China) and Singapore have taken similar actions. Regulation remains fragmented in China, Malaysia, and the Philippines, but Indonesia is combining its non-banking and securities regulators. In Thailand, the Securities and Exchange Commission regulates both mutual funds and provident funds.
Developing Sound Markets for Risk Sharing

For derivatives and securitization in turn, this chapter reviews key developments and the state of markets, and outlines the main elements of policy to help strengthen and expand these markets.

**Derivatives Markets**

Derivatives—developed within an appropriate framework of solid product design, regulation, and sound market infrastructure—can play a very important role in allowing market participants to manage and transfer risks to those better able and willing to bear them (Box 7.1).

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**BOX 7.1 Main Features of Derivatives Markets**

Derivative instruments are financial contracts whose value depends on, or derives from, underlying assets (such as securities or commodities) or indexes. Derivatives can be classified into two types: forwards and options. Forward derivatives include mainly forwards, futures, and swaps. Option derivatives include options, caps, floors, and all financial instruments with embedded options such as callable bonds, mortgage-backed securities, and collateralized mortgage obligations. Option instruments have a payoff pattern that is non-linear and asymmetrical—that is, the change in value of the derivative is not in the same proportion and may not be in the same direction as the change in the value of the underlying asset or index. (In this feature, option instruments are unlike forward derivatives, whose value changes in the same direction and proportion as the value of the underlying assets.)

Borrowers can use derivatives to reduce funding costs, efficiently alter the proportion of fixed- to floating-rate debt, enhance the yield on assets, modify the assets’ payoff structure to correspond to the firm’s market view, and, perhaps most importantly, to transfer market risk, or hedge. Thus, for example, commodity futures provide clear benefits for commodity producers: knowing future prices allows them to make more efficient economic decisions. Foreign-exchange derivatives provide invaluable hedging tools to corporations and even to smaller firms engaged in international trade, allowing them to match the currency composition of their assets and liabilities.

(Continued)
Developments in East Asian derivatives markets since the financial crisis

Global derivatives markets have grown extremely quickly over the past decade or so. Globally, over-the-counter (OTC) derivatives markets have increased tenfold over the past decade to reach US$248 trillion in 2004 (Bank for International Settlements 2005). The market value of these OTC derivatives is about US$9 trillion, although after netting arrangements have been taken into account, the actual value is estimated to be around US$2 trillion. Most of the OTC derivatives—more than 75 percent—are interest-rate products (mostly swaps). A much smaller proportion, about 12 percent, are foreign exchange products, and about 10 percent are credit derivatives. The latter have been the fastest growing component, amounting now to about US$6 trillion.

Globally, exchange-traded derivatives (ETDs) reached US$53 trillion in market value in 2004, nearly six times the market value of the OTC derivatives. Some 65 percent of the ETDs are equity futures and options (both on the index and individual stocks), 26 percent are interest-rate derivatives (both on short-term interest rates and long-term government bonds), and 9 percent are commodity futures.

Derivatives markets in East Asia have accounted for a sizable proportion of the global growth. Five main derivatives products are traded in East Asian markets (Table 7.1):

- Foreign-exchange products, which are traded in Tokyo, Singapore, and Hong Kong (China), mostly in OTC markets. There are also offshore markets, mainly in Singapore, for minor and non-
convertible currencies (such as non-deliverable forward instruments in the Chinese RMB). The combined East Asian markets account for about 15 percent of worldwide trading (Table 7.1, column 1).

- **Interest-rate derivatives**, where East Asia accounts for less than 2 percent of worldwide trading on the over-the-counter market and slightly more than 2 percent of the ETD market (columns 2 and 3). There is a trend in the region toward ETD markets—for example, the Republic of Korea has recently moved its government-bond derivatives onto the exchange. Tokyo and Singapore are the two dominant locations that trade mostly Japanese yen and U.S. dollar swaps (OTC) and futures (ETD). Local fixed-income derivative markets have been developed only recently and remain small.

- **Equity derivatives**, which have seen the most rapid growth, often doubling every two or three years (column 4). These are mostly ETD markets, with Korea and Hong Kong (China) showing the most impressive recent growth. Index futures as well as options are the most widely traded products, with a large participation of institutional investors and significant foreign participation.

- **Commodity derivatives**. These have a long history, especially in China, where the soybean futures contract at the Dalian Commodity Exchange is the third largest derivatives contract in Asia and is among the world’s 20 largest derivatives contracts. In addition, wheat, rubber, gold, and oil futures are large and are mostly traded on Chinese (and Japanese) specialist commodity exchanges. However, commodity derivatives account for less than 10 percent of the turnover of the exchanges.

- **Credit derivatives**, which are among the fastest-growing products, and especially credit default swaps, which account for about half of this OTC market. It is estimated that about 10 percent of the worldwide US$6 trillion OTC market in credit derivatives is located in Asia, mainly in Tokyo and Hong Kong (China).

Thus, derivatives markets are already important in the region, although still limited to a few jurisdictions (Table 7.2).

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**TABLE 7.2 Derivative Products and Turnover**

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<td><strong>Commodities</strong></td>
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<td>Options on futures</td>
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<td>5</td>
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<td>9</td>
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n = does not exist. y = exists
As noted, the growth of derivatives in the region has been led by transactions in the formalized exchanges. The formalized exchanges in the region can be divided into three tiers. In the first tier are those of Hong Kong (China) and Singapore, which offer a large variety of interest, foreign exchange, equity, and commodity products. The second tier comprises exchanges in Korea and Malaysia. The Korean Futures Exchange has become the largest exchange in the world in terms of trading volume and was created in 2004 by merging the Korean Stock Exchange (focused on equity derivatives) and KOFEX (focused on fixed-income derivatives). The Futures Exchange offers nine types of derivatives with relatively simple products, low transactions costs, and very advanced information technology and Internet trading. Malaysia clamped down on derivatives after the crisis and merged three exchanges into the Malaysian Derivatives Exchange, which trades commodity and equity futures in roughly equal proportions and has doubled its trading volume over the past two years. China experienced major problems in the 1990s and closed 27 of its 30 exchanges (Box 7.2); it currently only allows commodities future trading, which is expanding rapidly.

The third tier of exchanges, in Indonesia, the Philippines, and Thailand, trades very few derivatives. All three countries’ markets allow banks to trade in OTC derivatives and have recently considered (re)introducing ETD markets. After serious losses during the financial crisis, Thailand has kept its offshore and derivatives markets on a short leash, with OTC derivatives trading in the range of US$30 billion in 2004.

**BOX 7.2 Failure of a Futures Exchange: The Shanghai Stock Exchange**

Several futures exchanges have failed because of weak clearing houses and poor margin systems. For example, the Hong Kong Futures Exchange went bust in 1987 after the stock market collapse, and the futures arm of the Moscow Stock Exchange failed in 1994. Less well known is the example of the Shanghai Stock Exchange (SSE). The SSE became the world’s largest exchange when it traded 4 million government bond futures on one day (February 23, 1995), but then collapsed, when price manipulation caused more than US$10 billion in losses in just eight minutes. This case highlights many valuable lessons about the preconditions that need to be met for successful trading of derivatives.

China established the Shanghai Stock Exchange in 1990 and in 1993 opened the trading of government bond futures through 50 brokerage firms to the general public. The government bonds that were issued took the form of zero coupon bonds with three- to five-year maturities, some at variable interest rates that were adjusted discretely with so-called inflation subsidies, and they were settled with physical delivery—a choice that often caused shortages, because the open interest in futures markets far exceeded the physical amounts of outstanding bonds.

In a short period, more than 30 exchanges opened up and more than 50 futures contracts were traded in a casino-like atmosphere. In 1994, hot money migrated from equity to futures markets for government bonds, which were traded mostly in Shanghai, but also in Beijing, Shenzhen, and Wuhan. New regulations and position limits were then announced by various regulators. On February 23, 1995, expecting a decision on the size of inflation subsidies for some illiquid bonds, a small brokerage owned by the ministry of finance, bet on a long position while the largest broker, Shanghai International Securities (SIS), took a short position. When information arrived on the subsidies, which would cause substantial losses to SIS, they tried to corner the market by reversing their position to the amount of $26 billion in trading, exceeding limits by 20 times, violating rules and rigging prices. Illegal transactions continued over the next three months and the government then suspended all futures trading on May 18, 1995. The hot money then immediately flowed back to equity markets, which posted their largest gain of 31 percent on the same day.

Three lessons can be drawn from this experience:

- First, a sensible design of derivatives products is critical. At a minimum there needs to be a well-functioning and liquid cash market, in which risk management has been tested, volatility is within reasonable bounds, and both long and short positions can be efficiently traded. The establishment of each new derivative product focused on hedging has to have an economic rationale, rather than being purely for speculation.
- Second, the market infrastructure at derivatives exchanges and clearing houses needs to be soundly developed. The governance of the exchange needs to set incentives for market participants to honor rules of conduct and the stability of the trading system, and only qualified investors should be permitted.
- Third, transparent legal and regulatory structures as well as a level playing field are other important preconditions. Clear accountability for a lead regulator and for market participants needs to be established and the legal framework must support strict enforcement.
The Thailand Futures Exchange, established in 2004, hopes to begin trading index futures in 2006 and is actively considering introducing interest-rate derivatives. Indonesia has established the Jakarta Futures Exchange, and introduced equity index futures at the Surabaya Stock Exchange in 2001. However, market infrastructure and investor interest are still nascent and trading volumes have remained very low. Finally, OTC derivatives are allowed in the Philippines, but the Manila Futures exchange was closed after irregularities in 1997.

Since derivatives markets are still limited to a few jurisdictions in the region, the discussion below asks:

- What key elements need to be put in place as countries consider further developing and broadening their derivatives markets?
- Where do countries stand with respect to these elements?
- Is there an appropriate sequencing of markets and measures?

**Key elements of sound derivatives markets**

To further develop the derivatives markets in East Asia, cross-country experience suggests the following needs.

**Cash markets**

First on the list are efficient, liquid, and integrated cash markets (for bonds, equities, commodities, and other assets) that are broadly determined by market forces rather than by administered prices. Administered interest rates, segmented fixed-income markets, and capital controls make it unlikely that interest- or foreign-exchange derivative markets can develop successfully. If at all, they may develop offshore (as did non-deliverable forward markets for currency in Singapore) or in parallel unregulated markets (OTC derivatives offered by conglomerates in offshore locations). In fact, as experience from previous crises has shown, derivatives markets can create systemic risk if the prices of the underlying instruments are not market-determined. For example, fixed exchange rates have been undermined by short foreign-exchange-futures positions in Europe’s Exchange Rate Mechanism,145 as well as in Korea, Russia, and Thailand. And administered commodity prices and interest rates have invited speculation in derivatives that has often led to overshooting once policy constraints have been removed (as happened in the Chinese commodity and bond futures markets).

Since many derivatives are settled in kind (rather than cash), a sizable amount of underlying securities for settlement is also required. Many examples in developed markets have shown that large derivative positions can be abused to “squeeze” the cash markets, if large and liquid benchmark securities have not been established. Reports by IOSCO have pointed to the required coordination between cash and derivatives markets.

How large should the relative liquidity in cash and derivatives markets be? As can be seen from Figure 7.1, such markets may have liquidity up to five times larger than the underlying cash markets, as in Korea, for example. The most liquid markets often use advanced information technology and have large online trading, small transactions costs, and significant participation by retail investors. Further growth then appears to require movement along this corridor, with proportional increases in cash- and derivatives-market turnover.

Segmented markets and access restrictions can restrict the liquidity and efficiency of markets. This would suggest that in China, interest rates would need to be fully liberalized, and the two segmented bond markets integrated, before trading in government-bond futures can resume. More generally, as noted earlier, in bond markets, the development of on-the-run benchmarks can help foster liquidity. In addition, modern information technology, trading platforms, and Internet trading often enhance liquidity.

**Suitable legal and regulatory framework**

In general, there are three reasons why financial institutions and/or financial markets need to be regulated: to protect depositors, to secure the integrity of payments, and to maintain financial stability (the last requires that possible contagion across markets be limited).

Regulators in Anglo-Saxon based legal systems argue that the existing institutional supervision of banks obviates the need for any additional functional regulation of derivatives markets; instead, markets are encouraged to develop self-regulatory organizations to maintain their integrity. This approach appears to be consistent with the existing market structure in the United States and United Kingdom, where over-the-counter derivatives trading is dominant and the market is highly concentrated among banks. By con-
Contrast, in East Asia as in many emerging markets, trading in exchange-based derivatives has seen very strong growth involving a mix of banks and securities firms, and institutional as well as retail investors (Figure 7.2).

Hence regulators in these countries have adopted a more function-based approach to regulating derivatives markets, recognizing that such trading may pose higher risks for retail investors as well as for systemic stability. Indeed, many regulators have ex-

**FIGURE 7.1 Liquidity Ratios in Equity Derivatives and Cash Markets**

- **Note:** The figure shows the ratio of derivatives turnover to cash-market turnover in the leading equity markets.

**FIGURE 7.2 Participants in Key East Asian Derivatives Markets, 2004**

- **Source:** Hong Kong Securities and Futures Commission 2005 and Korea Exchange 2005.
pressed a policy preference to channel derivatives trading away from the unregulated OTC markets into regulated ETD markets—which have additional safety cushions, since every trade requires a prior cash deposit for margins that limit leverage.

Thus, one of the key elements of an appropriate legal framework is appropriate regulation (functional and/or institutional), including self-regulatory organizations. Experience has shown that exchanges that have good powers of market surveillance and enforcement have been more effective at self-regulation than have trade or industry associations. Demutualized exchanges (Box 5.5) are likely to be able to establish the incentives for market participants to honor rules of conduct and enhance the stability of the trading system. Strong coordination among regulators (local authorities, securities regulators, central bank, and finance ministry) is critical to close any loopholes and ensure that rules are strictly enforced. There is also a need to enact a derivatives law that protects netting arrangements (see below) in bankruptcies and enables effective enforcement.

To provide a level playing field between OTC and ETD derivatives, capital rules for banks operating in the OTC markets need to be aligned with the margin rules that govern ETD derivatives markets. Otherwise, the margin rules effectively put most ETD markets at a disadvantage. Taxes for all derivatives and related cash products also need to be harmonized, since such transaction costs are an important driver of liquidity, changes in which can shift or even destabilize markets. Recently, for example, Korea began taxing capital gains from derivatives (they were previously exempt) at the same rate as cash-market transactions. This has led to a better balance between cash and derivatives trading.

Before allowing the trading of derivatives, both long and short positions should be allowed in the underlying cash market. As discussed in Chapter 5, for bond markets, repurchase agreements (repos) need to be established, as does the development of securities lending, which is often combined with margin trading. Short positions may be limited to hedge net long positions, but they are critical to develop liquidity and to reduce the likelihood that derivatives will be used to substitute for short cash positions.

On the regulatory side, it is also important to ensure that market participants that intend to deal in derivatives are licensed and trained according to high standards of governance and accounting, and are required to hold enough capital for their respective risk positions. It is also important that intermediaries be made accountable to deal with only “fit-and-proper” clients who understand the characteristics and risks of derivatives.

Regarding the key elements of institutional infrastructure, the most important are good disclosure practices and accounting standards, including the practice of mark-to-market valuation as required under IFRS accounting standard IAS 39.

Finally, as regards market infrastructure, the single most important means to manage risk in derivatives markets is to reduce exposure through close-out netting arrangements, ideally using a central counterparty (CCP) that interposes itself between the counterparties to financial contracts that are traded in one or more markets. Such arrangements were initially developed by securities exchanges and have recently been adopted in some OTC markets.

The benefits of netting can be very large; for example, even bilateral netting by U.S. commercial banks has reduced credit exposure from derivatives by more than 80 percent. Indeed, the BIS and IOSCO recommendations for central counterparties, issued in 2004, emphasize the significant benefits that can be gained from a central counterparty by imposing more robust risk control on all market participants and by achieving a multilateral netting of trades.

However, because a CCP also concentrates risks, its use requires effective risk controls, financial resources, and oversight, because a failure could spill over to payments and other settlement systems. Therefore a CCP is expected to have several safety cushions, including adequate capital and effective margin rules. Countries in the region are quickly adopting these recommendations and several CCP arrangements have been announced, most recently in the merged Korean Stock Exchange. In principle, these recommendations can be applied to the over-the-counter markets as well, and the industry association, the International Swaps and Derivatives Association (ISDA), has been active in developing master agreements for bilateral close-out netting. Major banks have thus far opposed multilateral netting through a CCP because that would require them to post margins and hence increase their transaction costs.

Thus policymakers need to achieve a delicate balance between the need for financial innovation and
low transaction costs on the one hand, and reduc-
ing the potential risks to financial stability on the
other.

Economies in the region are at various stages of
development of the infrastructure needed for deriv-
atives markets (Table 7.3).

In countries that have a considerable way to go in
developing these elements, it is also useful to think
about the appropriate sequencing of products and
measures (Figure 7.3).

In particular, as discussed above, experience sug-
gests there is merit in developing deep and liquid
cash and repo markets first, followed by many of the
derivatives products that trade primarily on the
ETD markets. To promote safety and soundness,
the development of the more complex OTC prod-
ucts should probably not be sought until a later stage
(unless these products emerge spontaneously to meet
a need). Usually index futures are among the first
products to be introduced, before options on in-
dividual assets. Subsequently, more tailored or in-
ovative OTC-traded derivative products, such as
credit-default swaps, may be designed. Typically, the
intermediaries are banks, which should receive spe-
cific regulatory clearance and should support their
risk positions with adequate capital. Management of
counterparty-credit risk requires special emphasis,
which is typically facilitated through ISDA master

### Table 7.3 Status of Infrastructure for Derivatives Markets

<table>
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<tr>
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<th>Indonesia</th>
<th>Rep. of Korea</th>
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<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong (China)</th>
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**Sources:** Information on derivatives law is from individual jurisdictions; only Hong Kong (China) currently has a distinct derivatives law. Securities lending in-
formation is as reported in Chapter 5 above, showing restrictions on short selling in Malaysia and the Philippines and very little activity in Thailand and In-
donesia. Central counterparty information is from industry sources and the ADB, showing adequate functioning only in Hong Kong (China), Singapore, and
Korea. International Swaps and Derivatives Association Inc. (ISDA) netting opinions have been issued for all countries but several countries still have issues
to resolve in this regard. Data on taxation were obtained from Price-Waterhouse-Coopers, “Taxation on Financial Derivatives in East Asia,” which shows small
stamp duties in effect in Hong Kong (China) and Malaysia and value-added tax being applied in China, the Philippines, and Thailand. Transaction costs in the
bond market are obtained from ADB and additional market information. Information on the institutional investor base reflects the data and discussion in
Chapter 6 above, which shows weakness especially in Indonesia and the Philippines.

**Notes:** y denotes best practice; () denotes progress on existing deficiencies; and x denotes major problems. Fixed-income liquidity indicators and benchmarks,
as discussed in Chapter 6 above, show weaknesses in China (segmented markets), Hong Kong (China) (small local currency issuance), and Indonesia, the
Philippines, and Thailand (very limited medium- to long-term benchmark issues). Equity market indicators reveal thin markets in Philippines, Indonesia, and
to a lesser extent Thailand.
agreements, the use of counterparty-credit ratings, and the posting of collateral.

Research suggests that while OTC markets offer more flexibility, ETD markets are better at supporting financial stability. Traditionally, foreign exchange and longer-term interest rate derivative products have evolved on OTC markets, whereas equity and commodity products have been listed on ETD markets. More recently, however, many shorter-term interest rate and foreign exchange contracts have also been listed in ETD markets. From a policy perspective, governments can create a level playing field for both markets through guidelines affecting taxation and risk management. (In practice, many OTC markets are less regulated, less transparent, less liquid, and less expensive than ETD markets, and this can create unhelpful incentives for the faster development of OTC markets.) From the perspective of systemic risks, most accidents in derivatives markets have occurred in the OTC markets, as the result of limited transparency and the difficulties of monitoring large risk positions across multiple counterparties.

Therefore, many policymakers have encouraged an early development of ETD markets on a level playing field (making sure that regulations and taxes do not discriminate against ETD markets), with best-practice risk management systems, especially single-clearing counterparty systems. In addition, regulators are tightening OTC licensing requirements and stepping up the enforcement of investor suitability rules in OTC derivatives markets.

**Securitization**

Securitization, which entails transforming illiquid assets into securities that can be issued and traded on securities markets, can provide another important mechanism for sharing risks, particularly credit risks (Box 7.3). The process of securitization can sometimes involve the creation of derivative products, such as mortgage-backed securities, which are option
Box 7.3 Principles of Securitization

Securitization deals generally have three characteristics: pooling effects from a wide variety of receivables, isolation from originator, and a structure with tranches that have different risks and pricing. Risk transfer can be achieved by either true-sale structures, in which ownership is passed on to a special-purpose vehicle (SPV), or by so-called synthetic securitization, whereby the originator can issue on its own balance sheet. The SPV, in turn, issues one or more debt securities—asset-backed securities—whose interest and principle repayments depend on the cash flow coming from the underlying assets. Any kind of receivable can be securitized in principle, but investors are only interested in receivables with stable and foreseeable future payment streams. Thus assets that have been transformed in this manner include residential mortgages, auto loans, credit-card receivables, leases, and utility payments. There are three types of basic underlying receivables: asset-backed securities, such as credit-card payments; collateralized debt obligations, such as loan payments; and mortgage-backed securities, both residential and commercial.

### Types of Securitization

<table>
<thead>
<tr>
<th>Asset-backed securities broadly defined</th>
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<tbody>
<tr>
<td><strong>Mortgage-Backed Securities</strong></td>
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<tr>
<td>Residential mortgage-backed securities</td>
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<tr>
<td>Commercial mortgage-backed securities</td>
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The “originators” are usually corporations or financial institutions. The key to asset securitization is the separation of good assets from a company or financial institution and the use of these assets as a backing for high-quality securities that appeal to investors. Such separation makes the quality of the asset-backed security independent of the credit-worthiness of the originator. The originator (bank or company) selling the assets will normally continue to service them and hence will continue to derive the servicing revenues. Although most originators are top-quality banks and corporations, some weaker borrowers have been able to employ their good assets to access capital markets that would otherwise have been closed to them. For corporations, asset securitization provides a new and potentially cheaper form of financing. For financial institutions that have successful loan programs but face capital constraints, securitization is a means of removing assets from the balance sheet and of freeing up capital to support further lending. Asset securitization can open a new avenue for funding—one that can enable a financial institution to achieve a good match between its assets and liabilities.

For investors, securities offer yields that exceed those on comparable corporate bonds and provide diversification into a different form of investment. Securitization therefore broadens the investor base because it caters to wider set of risk/return appetites that are willing to bear incremental credit, prepayment, and liquidity risk in return for higher yield. Because the deals are usually large and have high credit ratings, the securities tend to be liquid and may be actively traded in secondary markets. The great majority of asset-backed securities are held by institutional investors. In East Asia, a major share of these securities is held by commercial banks, but increasingly pension funds and insurance companies are showing interest.
Developments in East Asian securities markets since the financial crisis

The market for asset-backed securities in the region—both the domestic and cross-border segments—has grown quite rapidly since 1999 and is becoming an important element in the overall development of the securities markets. Securitization is being used for a wide variety of purposes, ranging from facilitating access to capital markets for small- and medium-size enterprises and the transfer of credit risk from banks to capital markets, to the transfer of both banks’ and non-bank financial institutions’ mortgage loans to capital markets.

Thus far, however, this market has been largely confined to Hong Kong (China), Korea, Malaysia, and Singapore. Thailand has seen only three securitization transactions since 1997, although the government has recently announced its first large future-flow transaction to finance new government offices. Only a few transactions have taken place in the Philippines, and none in Indonesia yet. In China in 2005, the government proceeded with two pilot transactions in which two state-owned financial institutions—China Development Bank and China Construction Bank—were given approval to issue asset-backed securities. China Construction Bank launched an RMB 3 billion securitization transaction and China Development Bank issued collateralized loan obligations (CLOs) in three tranches amounting to RMB 3 billion. As discussed below, to facilitate the launch of these projects the Chinese authorities have had to issue provisional rules.

Outside of Japan, the largest asset-backed securities market in the region is in Korea. Securitization in Korea was facilitated with the passage of the Asset-backed Securities Act in 1999, covering most of the legal and regulatory issues associated with securitization. In particular, the Act defined the term “asset-backed securitization” and specified the three main types of issuers in Korea: (1) a special-purpose company; (2) a trust company under the Trust Business Act; and (3) foreign companies specializing in asset securitization. In the same year, the Government also passed the Mortgage-backed Securitization Company Act to foster development of residential mortgage-backed securities.

Since then, the market for asset-backed securities in Korea has grown rapidly (from 6.8 trillion won in 1999 to 26.1 trillion won in 2004). In the early period (1999–2001), collateralized bond obligations and collateralized debt obligations accounted for the bulk of the transactions, as securitization in Korea focused on addressing the nonperforming loans of financial institutions and on refinancing the corporate bonds that needed to be rolled over. The issuance of ABS peaked at 50.9 trillion won in 2001. One such deal, Korea Asset Management Company’s Korea Asset Funding Ltd., 2000–01, was the first cross-border securitization deal. The ABS market has also been used to provide funding for small- and medium-size enterprises. For instance, the KOROmas Fund Ltd transaction, completed in December 2001, raised US$300 million for this purpose through the issuance of a floating-rate note that was backed by loans from 59 Korean companies. Payment guarantee was provided by the Korean Development Bank through a US$350 million credit facility (Box 7.4).

During 2000–03, Korea’s main issuers of asset-backed securities were financial institutions and credit-card companies, together accounting for almost two thirds of the volume. As discussed earlier, during this period the government had stimulated domestic consumption and consumer credit rose rapidly, leading to large-scale defaults and large losses for credit-card issuers and banks. As a result, the volume of asset-backed securities declined in 2004. Due to the uncertainties that were created in the market by the increase in credit-card delinquencies and a scandal at SK Global, investors in Korea now have a strong preference for short-term notes over medium- and long-term asset-backed security instruments. (In 2004, about 73 percent of the transactions had maturities of less than two years.)

Issues of asset-backed securities in Hong Kong (China) during 1997–2001 amounted to about US$3 billion—or about 31 percent of the total US$9.7 billion issuance of such securities in the region. However, there were no such transactions in Hong Kong (China) at all in 2002. Securitization activities picked up in 2003 and gained further momentum in 2004 when the Hong Kong Mortgage Company issued the first-ever retail mortgage-backed security in Asia, for US$3 billion (Box 7.5). The latter enjoyed an exceptionally wide distribution through 900 bank branches as well as the telephone and electronic networks of 19 placing banks.

Transactions initiated by real-estate-investment trusts (REITs) have led to a pick-up in securitization in Singapore. A recent example is the $1.0 billion
Emerald Asset Limited, which raised funds through securitization to refinance its existing loans and to invest in new property projects. Large financial institutions are increasingly using synthetic transactions for risk management (Box 7.6).

In Malaysia, as part of its plan to develop the capital market, the government made concerted efforts through the Securities Commission and Bank Negara Malaysia to develop the asset-backed securities market in close collaboration with the private sector and key market participants. It established an Asset Securitization Consultative Committee, consisting of prominent experts in their respective fields (legal, accounting, tax, financial institutions, and other service providers) to update and amend the asset-backed securities guidelines. Arising from the Committee’s

**BOX 7.4 The KOROmas Fund Ltd.**

The US$300 million KOROmas deal is an emblematic transaction in which foreign capital financed small and medium firms in Korea. The KOROmas Fund issued three classes of notes for this purpose. US$285 million were issued in “A” notes, which have been rated BBB+ by Standard and Poor’s, and have the backing of a credit facility of up to US$350 million by the Korea Development Bank (KDB). The junior “B” notes target Korean investors and are without KDB support, and the “C” notes are supported by the equity of the companies in the fund.

Proceeds of the note sales were used to buy Eurobonds with warrants attached to a pool of 60–70 Korean enterprises valued at US$344 million. The participants were selected from among 400 companies, and there is a heavy technology bias among the group. Investors are essentially buying a collateralized bond obligation with the credit guarantee of KDB and the upside of the Korean companies in the Fund. Despite the involvement of the Korean government, the Korean firms will be paying a market rate for their funds. The deal is a landmark one that will serve as a blueprint for tying foreign capital to companies that have difficulty in accessing international funds, given their size and concerns about their creditworthiness. The group that assembled the deal believes that there could be considerable interest in similar deals in China and Singapore.

Source: Dalla 2005.

**BOX 7.5 The Bauhinia Program**

Bauhinia MBS Limited (Bauhinia) is a bankruptcy-remote special-purpose company established by the Hong Kong Mortgage Company (HKMC) for the issuance of mortgage-backed securities (MBS) under the Bauhinia program. HKMC periodically sells mortgage portfolios to Bauhinia, which then packages the loans into mortgage-backed securities (MBS) of different series for issue to investors. As a result of the availability of a “master” prospectus, the issuer only needs to prepare a simpler prospectus supplement to accompany the issue of new MBS. This allows a high degree of flexibility, enhances efficiency in issuing the MBS in different series, and facilities the design of specific structures to meet the varying needs of investors.

Thus mortgages purchased from different sellers have been collateralized and both floating- and fixed-rate notes have been issued under the program. Payment of principal can be structured in different ways to meet investors’ needs. For example, Class A-1 of the MBS issue in October 2003 was insulated from repayment and prepayment of the underlying mortgage pool in the first three years. This is particularly suitable for investors who prefer a stable return on their investments.

The key features of the program are:

- The issues can be in different currencies to meet the demand of both domestic and overseas investors.
- The interest payable on the coupon date is predetermined and known to the investors. This facilitates the trading of the MBS and hence enhances their liquidity in the secondary market.
- HKMC guarantees the timely payment of principal and interest of the MBS. As HKMC is a public-sector entity, all of these MBS notes qualify for 20 percent capital-risk weighting and are treated as liquefiable assets under the Hong Kong Banking Ordinance.

Source: Hong Kong Mortgage Corporation, 2006.
recommendations, Malaysia’s revised Guidelines on the Offering of Asset-backed Securitization Transactions by Licensed Institutions are designed to facilitate the participation of banking institutions in the ABS market. The two key features of the prudential standards are the spelled-out capital requirements and the transparent criteria. These have enabled the banking institutions to undertake primary and secondary roles in ABS issuance without the need to seek case-by-case approval from Bank Negara Malaysia, and have set up the framework to foster the development and growth of the ABS market. The outstanding volume of ABS stood at RM14 billion in mid-2005, up from less than RM1 billion in 2001. Several innovative transactions took place in 2004, including the first credit-card transactions and the first residential mortgage-backed securities (RMBS). The first of these securities was launched by Cagamas and backed by a RM1.9 billion portfolio of residential mortgages serviced by the pensions of retired public-sector employees. In addition to being the first domestic RMBS transaction, it is also the first transaction involving government assets and the first true securitization by Cagamas.147

Cross-border securitization transactions in the region have also grown, although not as fast as domestic securitization (Table 7.4). The volume of cross-border securitization grew from US$1.2 billion in 2000 to US$4.2 billion in 2002, mainly because of large credit-card transactions from Korea. With growing consumer debt and the slowdown in credit-card loans in Korea, the volume of cross-border transactions originating in that country dropped sharply in 2003 and 2004, leading to a smaller issuance

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**TABLE 7.4 Cross-Border Securitization Transactions**

<table>
<thead>
<tr>
<th>Origin</th>
<th>2000</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US$ millions</td>
<td>%</td>
<td>US$ millions</td>
<td>%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>300.0</td>
<td>25.1</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>(China)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>769.0</td>
<td>64.4</td>
<td>3,222.9</td>
<td>78.4</td>
</tr>
<tr>
<td>Singapore</td>
<td>125.0</td>
<td>10.5</td>
<td>290.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.0</td>
<td>0.0</td>
<td>600.0</td>
<td>14.6</td>
</tr>
<tr>
<td>Cross-national</td>
<td>33.3</td>
<td>2.8</td>
<td>141.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Total</td>
<td>1,194</td>
<td>100</td>
<td>4,113.0</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Moody’s Investors’ Service, IMF IFS.
in aggregate. At end-2004, total cross-border issuance in the region amounted to US$3.1 billion, with Korea’s share of cross-border securitization having dropped from 68 percent in 2001 to just under 50 percent in 2004. During 2003 and 2004, issuance from Hong Kong (China) and Singapore picked up and accounted for much of the remaining 50 percent.

The composition of cross-border asset-backed securities transactions in East Asia has changed significantly since 2002 (Figure 7.4). In that year, consumer finance, mainly for credit cards and vehicle purchases emanating mostly from Korea, accounted for the major component, but by 2004 more than two thirds of total transactions were related to real estate, both residential and commercial. The only consumer-related category in 2004 was auto loans, which accounted for about 10 percent of the total transactions. Collateralized debt obligations and collateralized loan obligations were also important.

**Key elements needed for securitization**

Asset securitization can benefit many players in the region’s economy. For corporations, securitization can provide a new and potentially cheaper source of funding. For many financial institutions that have few tools for managing risk, securitization can provide new funding that enhances their ability to match the maturity of their assets and liabilities. For investors, securitization can offer yields exceeding those on comparable bonds, while providing an opportunity to diversify a fixed-income portfolio. And governments are increasingly looking to securitization as a means of funding for infrastructure projects. Indeed, the importance of further developing the securitization markets is widely recognized in the region.

Hence this section looks at the following questions:

- What are the key elements necessary for securitization and what are the remaining issues to be addressed?
- To reduce some of the risks commonly entailed in different forms of securitization, does it make sense to sequence the types of securitization that are undertaken?
- How will the adoption of Basel II—which most countries in the region plan to adopt over the next few years—affect securitization activities by banks?

Securitization requires that certain legal, regulatory, and accounting elements be in place. First, it requires legislation that allows for the creation, transfer, and perfection of ownership interests. Contractual restrictions on the types or terms of financial assets that can be transferred for the purposes of securitization will affect securitization itself. Such restrictions are common in all the East Asian markets, except generally in Hong Kong (China) and Singapore. Obligor notification or consent requirements, like the need to obtain specific regulatory approval before transferring assets, would also affect the efficiency with which securitization transactions can take place. Rules also need to address the taxation and gain-recognition events that may be triggered by the transfer of assets to a securitization vehicle. Taxes and duties can reduce the incentives to securitize. It is also generally important to have various types of default, foreclosure, and/or repossession remedies that may be exercised at the individual level by the servicer or other administrator of the securitization transaction.

While the details will vary among jurisdictions, a generic requirement for securitization is to be able to ensure a true sale—that is, the irrevocable transfer of assets to an insubstantive special-purpose vehicle (SPV) to which the asset seller has no ties of ownership or control.148 (Funding for the asset purchase is provided by the sale of public or private securities to
third-party investors.) The transaction must withstand any legal claim in bankruptcy against the asset seller (bankruptcy remoteness). Another important set of issues relates to the legal framework governing the creation, maintenance, and operation of special-purpose vehicles themselves. The most basic prerequisite is for the governing legal framework to permit SPVs to issue securities evidencing ownership or beneficial interests in pooled assets, rather than a general claim against the entity itself. In addition, it is generally desirable to limit taxes on the income of special-purpose entities and to avoid subjecting them to burdensome licensing or other regulatory requirements. In most cases, securities issued by an SPV must also provide for the dependable subordination of claims.

Finally, depending on the originator’s objectives, the balance-sheet effects and accounting treatment may influence the incentives to securitize and affect the structure of the securitization transaction. The key consideration in this regard is to structure the asset sales in a manner that achieves non-recourse sale treatment and asset de-recognition for balance-sheet purposes. International accounting standard IAS 27 lays out the principles under which an entity should consolidate another entity; interpretation SIC 12 of this standard focuses on the consolidation of special-purpose entities; and IAS 39 deals with the recognition and de-recognition of financial assets and liabilities. The crux of the matter is whether the transfer of assets in an asset-based securities transaction is a true sale so that the assets should be taken off the balance sheet (de-recognized). Based on IAS 39, the sale will constitute a true sale if the originator has surrendered its control over the assets and the transferee has obtained the benefits of the transferred assets (the principle of the “substance over form” approach). Also at issue is the treatment of the special-purpose vehicle (SPV) by the originator. Originators may have to consolidate the SPV that they in effect “control.” There is a concern that the SPV would need to be consolidated with the originator, thereby defeating the purpose of de-recognizing the assets in the first place. Overall, the new accounting rules are more stringent on the removal of assets from the balance sheet of the originator; the intended objective of transfer of assets may not be achieved, and even if assets are taken off the balance sheet, there is a possibility of consolidating the SPV at the originator’s level, hence bringing the assets back onto the books of the originator. Also, the fair-value measurement of asset-backed securities poses some challenges in the absence of consistent transacted prices and quotes, and the difficulty of these challenges is compounded by illiquid bond markets.

Based on these key elements for successful securitization, Table 7.5 provides a broad assessment of the feasibility of undertaking a wider range of domestic securitized deals, for both local and offshore investors in the region.

China, Indonesia, Korea, the Philippines, and Thailand are civil-law jurisdictions. All of them have introduced, or plan to introduce, laws that permit the creation of securitized transactions recognizable by international standards. In particular, the laws will allow for the creation of special-purpose vehicles, which otherwise would not generally be permitted. But except in Korea, where the relevant laws are well established and actively used, the enacted measures have yet to be tested either by a large number of deals or in conditions of stress or challenge. Indonesia permits certain transactions under authority granted to Bapepam, the principal securities regulator. In certain civil jurisdictions, the legal framework currently applies only to transactions originated by financial-sector intermediaries. Thus it may exclude transactions that involve financial claims or assets owned or controlled by insurers or by industrial or similar concerns. It may also exclude similar transactions where current or future claims are due to wholly-owned financial substantive subsidiaries of insurers or industrial concerns. Private transactions completed in China in 2003–05 used the provisions of new legislation on companies and trusts. However, these provisions will not facilitate the creation of widely distributed securities.

The three common-law jurisdictions—Hong Kong (China), Malaysia, and Singapore—have most of the elements of law that are typically associated with securitized transactions in advanced markets involving existing or future claims originated by financial intermediaries. However, certain future claims (such as credit-card receivables) that cannot be specified in ways expected by current law may be seen as problematic by investors or third-party mono-line insurers.

Malaysian common law supports securitization. Rules setting out general parameters for securitization were first published only in 2001, but sales of
home mortgages began in the mid-1980s. Shariah-compliant transactions have been few to date; these involve intricate structuring at all stages but are now considered to be generally feasible, at least as single deals.

Thus far, in many of the asset-backed transactions that have been completed using source assets, execution has relied on complex offshore private structures written under English or New York law. Except in Hong Kong (China) and Korea, the bulk of completed East Asian transactions both before and since the legislative changes have been cross-border in nature, often as a device of structure to ensure the integrity of the asset sale, regardless of the domicile of investors (often to meet the needs of the mono-line insurance providers).

**Sequencing to manage risks**

While securitization has strong potential benefits for originators and investors and can be an important means of transferring risk, it also carries risks of its own, which in turn require the development of risk-management instruments and the presence of reliable counterparties. Since the nature of the risks can vary depending on the type of securitization, there may be an argument for sequencing the more complicated forms of securitization in line with the development of the requisite market players and derivatives markets.

The risks generally associated with securitized products can be classified into three categories: credit, structural, and legal (Table 7.6).

**Credit risks** relate to the default risk on the pool of receivables as well as to the possibility of default by other parties involved in securitization. The most important possibility to be considered is default by the underlying borrowers (such as car owners). While a small but predictable loan-loss ratio is manageable, the rating agency must carefully analyze and evaluate any factors that might trigger an escalation in defaults. Over-collateralization and third-party credit guarantees are often used to reduce these risks. Credit risks associated with other parties can involve service-performance risks: once a pool of assets has been

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**TABLE 7.5 Status of Key Elements Needed for Securitization**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Sale, assignment, or other conveyance of assets by originators to securitization vehicles</th>
<th>Creation, maintenance, and operation of special-purpose vehicle</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Legal framework for creating, transferring, and perfecting ownership interests</td>
<td>Restrictions on types or terms of financial assets that can be transferred</td>
<td>Default and foreclosure and/or repossession at level of individual assets</td>
</tr>
<tr>
<td>China</td>
<td>1–2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2–3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Philippines</td>
<td>2–3</td>
<td>2–3</td>
<td>2–3</td>
</tr>
<tr>
<td>Thailand</td>
<td>3–4</td>
<td>3–4</td>
<td>3–4</td>
</tr>
<tr>
<td>Hong Kong (China)</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Singapore</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Arner and others 2006.

Notes: Score 1 (lowest) to 5 (highest). Scores such as 2–3 represent an intermediate appraisal between two given levels. These split scores are intended to reflect degrees of uncertainty as to commercial outcomes. There are contractual restrictions as to the transfer of financial claims in all review markets, except generally in Hong Kong (China) and Singapore. The table includes no appraisal of national accounting standards. It makes no attempt to summarize regulatory restrictions on investors, which may have great impact on the early stages of market development. Such restrictions have traditionally been widespread, and only those in Hong Kong (China), Korea, and Singapore have been subject to relaxation since 2000, in relation to both the professional and retail segments.
Securitized, some entity, usually the originator of the assets, must continue to collect principal and interest and pass on payments on a timely basis, and service-performance risk arises from the possibility that the servicer will fail in these tasks. Proper screening and monitoring of services, as well as the ability to choose an alternative servicer if needed, can mitigate the service-performance risks. Another form of credit risk is swap-counterparty risk. This arises when an interest or currency swap is part of the deal, and it can be minimized by choosing a counterparty of high credit quality. Many asset-backed securities are guaranteed, to relieve the investor of the burden of analyzing a complex structure. In some transactions, swap-counterparty risk is covered in the financial guarantee.

Sovereign risk is most evident when the underlying assets are in one country and investors are in another. The sovereign entity can interfere with cross-border cash flows through taxes, exchange controls, or other measures. This risk can be mitigated using an offshore special-purpose vehicle and a foreign guarantor, or by capturing foreign-source cash flows, or specifying an independent jurisdiction to govern the agreements.

Structural risks relate to market, liquidity, and operational risks. Market risks in turn, include prepayment risk, interest rate risk, and exchange rate risk.

Prepayment risk arises when payments are made in excess of the scheduled principal payments on a loan. When borrowers can refinance at cheaper rates, it generally means that investors must reinvest at lower rates. That is why repayment risk often implies interest rate risk as well. This risk is most relevant for mortgage-backed securities, since this is where prepayment can have the biggest impact on the present value of forgone cash flows. To mitigate the prepayment risk for investors who prefer long-term investments, prepayments from the underlying mortgages are often redirected to different classes of investors. The best-known structure for accomplishing this redirection is collateralized mortgage obligations. In this structure, the principal payments from the underlying mortgages are used to retire different classes of debt on a priority basis according to specified terms.

Interest rate risks arise when the payment characteristics of the underlying assets do not match the needs of investors. For example, if assets are leases, which are essentially fixed-rate loans, the cash flows may be unsuited to banks that prefer floating-rate assets. One way to bridge the gap is for the special-purpose vehicle to enter into a fixed-floating interest rate swap that allows investors to receive a market-based interest rate. This can be important for many investors whose cost of funds is also based on short-term rates.

The risk of an exchange rate devaluation can arise when the assets underlying an issue are denominated in a currency different from that in which the investors receive their returns. Some asset-backed securities contracts provide for an increase in local currency payments to offset any decrease in the currency’s value. Alternatively, a currency swap may be used to transform the local currency cash flows into known payments in say, U.S. dollars or Japanese yen.

Liquidity risks mostly refer to the inability to sell assets in secondary markets and the need to hold them until maturity.

Legal risks relate to commercial, tax, and regulatory laws and their enforceability, as well as various operational risks. As discussed above, one of the major issues in securitization is to be able to ensure that the special-purpose vehicle is remote from bankruptcy. For this purpose, the SPV must be insulated against the bankruptcy of the originator, and

### TABLE 7.6 Types of Risks in Securitization Transactions

<table>
<thead>
<tr>
<th>Credit risks</th>
<th>Structural risks</th>
<th>Operational</th>
<th>Legal risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pool of receivables</td>
<td>Interest rate risk</td>
<td>Balance-sheet liquidity risk</td>
<td>General treatment</td>
</tr>
<tr>
<td>Other parties</td>
<td>Reinvestment risk</td>
<td>Prepayment risk</td>
<td>Commercial law</td>
</tr>
<tr>
<td>Service performance risk</td>
<td>Basis risk</td>
<td>Market-based liquidity risk</td>
<td>Tax law</td>
</tr>
<tr>
<td>Swap counterparty risk</td>
<td>Exchange rate risk</td>
<td>Primary market</td>
<td>Regulatory law</td>
</tr>
</tbody>
</table>

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Developing Sound Markets for Risk Sharing

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"TABLE 7.6 Types of Risks in Securitization Transactions"
vice versa. Should the originator experience financial difficulties, the SPV must still be able to perfect its security interest in the assets and obtain full control over cash collections.

Other legal issues include the legal, accounting, and fiscal status of the asset transfer (is it a true sale?) and the form of the SPV.

Figure 7.5 summarizes the main mechanisms that could typically be used to mitigate credit and structural risks in a more complex tranching securitization deal, say involving not only credit risks but also foreign-exchange risks and interest rate risks. As is evident, dealing with and reducing these risks effectively requires many different market players.

Arguably, one of the most important roles in risk mitigation is played by credit-rating agencies. These agencies issue ratings based on their analysis of asset portfolios, the legal structure of the transaction, the credit quality of the originator and the trustee, the cash-flow structure, and counterparties. Given the complexity involved, rating agencies play a particularly important role in structured finance.

Derivative instruments can also play an important role in alleviating credit, structural, and legal risks alike. For example, options can be added to cover specific operational risks. Credit enhancements are common tools to mitigate credit risk. They include limited recourse—a complex derivative instrument whereby the originator is obligated to repurchase securities under certain conditions. The most common market risk in mortgage-backed securities is prepayment risk. This is often hedged through interest rate futures and options, which are also useful to reduce basis risk and reinvestment risks. Swaps (foreign exchange derivatives) are commonly used to reduce the exchange rate risk from securitized products.

In sum, interest rate futures and options (traded on an exchange or over-the-counter), repurchase agreements, credit derivative instruments, and foreign exchange swaps are common derivative tools that are used in various securitized products. Unless these market tools are available, risks are often substantially higher in securitized products. Thus, in
promoting securitization, it is important for countries to keep in mind the need to also develop the derivatives markets.

In fact, effective risk management for securitized products requires many components of the legal and regulatory infrastructure that is necessary for broader derivatives markets. Therefore countries should consider developing the derivatives markets in tandem, moving toward the more complex forms of securitization as the derivatives markets become better developed and more complete. For instance, widespread mortgage-backed securitization and the different means of tranching debt can benefit from the availability of strong credit-rating services as well as the existence of interest rate futures and options. At present, as noted above, interest rate futures are available only in Hong Kong (China), Korea, Malaysia, and Singapore.

**Implications of Basel II for securitization**

Because securitization is a relatively recent phenomenon it is not explicitly covered by the Basel I Accord, which dates from 1988. Indeed, besides being used for liquidity purposes and for credit-risk management, securitization has been a major source of regulatory arbitrage under Basel I, and this has prompted national supervisors to develop their own regulatory standards.

Basel II introduces a differentiated regulatory framework for securitization exposures to prevent regulatory arbitrage and to harmonize the varying regulatory standards. Under Basel II, banks are required to hold regulatory capital against all their securitization exposures on the basis of the economic substance of these exposures rather than their legal form. Exposures that banks retain, as sponsors of securitizations or as investors in the securitizations of third parties, are to a large extent treated similarly. Securitization exposures may include providing credit-risk mitigation, investments in asset-backed securities, retention of subordinated tranches, liquidity facilities, or credit enhancement.

Within the Basel II securitization framework, the so-called Standardized Approach to estimating capital requirements relies on the publicly available external ratings provided by rating agencies, though banks may also choose the alternative, Internal-Ratings-Based Approach (IRB). To prevent banks that engage in securities business from using the IRB when this reduces their capital requirements and using the Standardized Approach in other cases, banks are required to use the same approach for securities business that they have chosen to use for calculating their capital requirements for credit risk in their banking services overall.

Under the Standardized Approach, securitization exposures are assigned a risk weight according to their public external rating, and unrated exposures must be deducted from capital. There are five risk buckets for exposures with long-term credit ratings, ranging from 20 percent for exposures rated AA− or better to 350 percent for those rated BB+ to BB−. A deduction from capital is required when the rating is inferior to BB−. There are three exceptions to this general treatment:

- Unrated most-senior tranches may receive the average risk weight of the underlying exposures, subject to supervisory review.
- Exposures in a second-loss position (or better) in asset-backed commercial paper programs will receive the greater of 100 percent and the highest risk weight assigned to any of the underlying individual assets of the pool.
- Eligible liquidity facilities will receive the highest risk weight assigned to any of the underlying individual assets of the pool covered by the facility and a credit conversion factor depending on the maturity of the facility.

Under the Internal-Ratings-Based Approach (IRB), the securitization framework establishes three different methodologies with a hierarchy among them:

- The ratings-based approach (RBA) is compulsory for rated exposures or when a rating can be inferred based on set requirements. The RBA assigns a risk weight to every exposure according to the external tranche rating. Risk weights range from 7 percent, which is the floor for AAA tranches, to a deduction for positions below BB−. In addition, the risk weights depend on the heterogeneity of the underlying pool and the seniority of the considered tranche.
- The supervisory formula can be used if the exposure is unrated and the bank either is the originator or has obtained permission from the supervisor. The supervisory formula assigns a capital charge on the basis of certain inputs to be
calculated by the bank. These inputs are the capital requirement prior to securitization (i.e., the total amount of credit risk for the entire securitized pool), the effective number of assets, the weighted average loss-given-default of the underlying pool, the thickness of the tranche, and the subordination level. Thus, the formula relies completely on the bank’s internal credit-risk inputs.

- The internal assessment approach is applied if the exposure is to an asset-backed commercial paper (ABCP) program and meets certain conditions, for example that the exposure be equivalent to at least investment grade at inception. This approach, introduced due to the particularities of ABCP programs, envisages the use of internal assessments of the credit quality of the securitization exposure by the bank based on ratings-agency methodologies, if certain operational requirements are met.

In all other cases, the bank must deduct the exposure from its assets.

Securitization is one of the critical markets in which the adoption of Basel II may have a significant impact. This is because:

- Basel II aims at better aligning credit-risk capital requirements to economic risks. It will reduce regulatory arbitrage opportunities through securitization. The more sophisticated the approach a bank adopts to credit risk, the less likely it is to retain room for regulatory arbitrage (Fitch Ratings 2005).

- Banks will face strong incentives not to retain unrated tranches, as these are to be deducted from capital. This should entice banks to have their securitization exposures rated—which may prove difficult in some jurisdictions. It is also likely to encourage them to structure securitizations in a way that minimizes the size of those tranches that attract the highest risk weights.

- A direct comparison of the Standardized and Internal-Ratings-Based securitization regimes indicates that banks using IRB may have an incentive to specialize in less risky securitization exposures, while those using the Standardized Approach will be inclined to specialize in riskier exposures. For investment-grade tranches, banks using IRB will benefit from base-case IRB risk weights that are only about 60 percent of those applied to banks using the Standardized Approach. Banks using the IRB approach thus have a greater incentive to hold highly rated tranches (7 percent risk weight for AAAs), than do banks using the Standardized Approach (20 percent risk weight for AAAs). However, for tranches rated BB and BB−, banks using the Standardized Approach would be more efficient holders (with a risk weight of 350 percent) than those using IRB (425 percent and 650 percent).
The global landscape in the financial sector has undergone major changes in recent years. Technological innovation, deregulation, and liberalization are blurring the traditional separation between banking, insurance, and securities markets.

Financial intermediaries now offer products that partly resemble those traditionally offered by other intermediaries. In many countries, for instance, insurance companies are allowed to offer short-term deposit-like products. Some new types of securities products, such as credit derivatives, in practice bear many of the characteristics of an insurance product. And the securitization of traditional forms of credit (such as mortgages, credit-card receivables, and commercial loans), and the proliferation of increasingly sophisticated ways of building, repackaging, and trading risks have weakened the distinction between equity, debt, and loans.

The development of new products is giving rise to new forms of linkage across intermediaries and markets (Table 8.1).

Finally, competition has encouraged different types of financial intermediaries to merge, giving rise to large conglomerates that provide a broad range of services across the financial segments. The number of financial conglomerates—firms linked through common ownership and operating across different segments of the financial system—has grown rapidly over the past decade. In 1995 about 40 percent of the 500 largest financial firms in the world were conglomerates, but by 2002 this percentage had risen to 60.

In East Asia, as discussed in Chapter 4, most economies allow banks to engage in securities (underwriting, dealing, and brokering all kinds of securities and all aspects of the mutual fund business); insurance (underwriting and selling insurance as a principal and as an agent); and real-estate business (investment, development, and management). Hong Kong (China) and the Philippines have the most permissive regimes, allowing any commercial bank to conduct securities, insurance, and real estate business. All other economies in the region allow banks to conduct businesses in other segments of the financial system subject, in some cases, to restrictions such as the need to establish subsidiaries and affiliated companies to engage in securities and insurance business. Indonesia and the Republic of Korea, for instance, allow banks to deal in securities and insurance through subsidiaries, but do not permit real-estate activities.
Following the global trend, the East Asian countries have seen a rapid increase in the number and importance of financial conglomerates. Of the 200 largest financial firms in the region, 111 are conglomerates, accounting for 80 percent of the total assets of these firms (only in Thailand does the presence of financial conglomerates appear to be smaller—there the ten largest conglomerates account for only about 40 percent of the total assets).  

**Trends and Issues in Supervision**

Few countries in the world are fully prepared to supervise financial conglomerates on a consolidated basis. According to the Financial Sector Assessment Program undertaken by the International Monetary Fund and World Bank, only one in four of the 80 countries that were assessed between April 1999 and June 2005 were fully compliant with Basel Core Principle (BCP) 20 on consolidated supervision. As discussed in Chapter 4, this is an area where the East Asia region has also been found to be relatively weak.

Without proper consolidated supervision, a financial conglomerate or any of its entities may become vulnerable to financial distress, due to double counting of capital, excessive connected lending, large intra- and extra-group exposures, and contagion problems or conflicts of interest among entities of the group. Moreover, in the absence of consolidated supervision, the information disclosed by banks, securities firms, and insurance companies, or any other type of entity belonging to a financial group, may underestimate the risks faced by these institutions as well as by the conglomerate as a whole.

More generally, the rise of conglomerates, the growing linkages across market segments, and the blurring of distinctions among some of the products of different financial intermediaries pose challenges to risk monitoring, regulation, and supervision. Supervisors face difficulties in classifying some of the new products under the traditional categories of banking, securities, or insurance. Indeed, practitioners now increasingly treat loans, securities, and insurance policies as part of a continuum of products that do the same thing: price risks. Risks become more difficult to monitor not only because the linkages have become more complex across financial segments or because the financial institutions have become larger and more complex, but also because these institutions and linkages through instruments span an increasing number of jurisdictions.

Traditionally, most countries have regulated and supervised their financial intermediaries through multiple institutions, including the ministry of finance and the central bank, as well as specialized supervisory agencies such as banking, securities, and insurance commissions. Some countries have established additional agencies to oversee particular market activities such as derivatives, to supervise particular

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**TABLE 8.1 Risk Transfers Among Banks, Insurance Companies, and Capital Markets**

<table>
<thead>
<tr>
<th>Direction of risk transfer</th>
<th>Risk type</th>
<th>Risk type</th>
<th>Risk type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit risk</td>
<td>Market risk</td>
<td>Insurance risk</td>
</tr>
<tr>
<td>Banks to insurance companies</td>
<td>Bank equities and bonds</td>
<td>Bank equities and bonds</td>
<td>Insurance on bank property, legal liability, etc.</td>
</tr>
<tr>
<td></td>
<td>Trade credit insurance</td>
<td><strong>Insurance companies writing options and buying bonds with embedded options (e.g., callable bonds)</strong></td>
<td>Insurance provided to borrowers to facilitate loans</td>
</tr>
<tr>
<td></td>
<td><strong>Asset-backed securities, credit-default swaps, portfolio CDOs, financial guarantees, residual value insurance, other forms of credit insurance, and surety bonds</strong></td>
<td>Hedging of embedded options in portfolios of life, insurance and pension products</td>
<td>Newly introduced insurance, e.g., for operational or political risk</td>
</tr>
<tr>
<td>Insurance companies to banks and other capital market investors</td>
<td>Letters of credit</td>
<td>Liquidity facilities</td>
<td>Catastrophe bonds</td>
</tr>
</tbody>
</table>


Note: Items in bold italics are the newer links. ABS = asset-backed securities. CDO = collateralized debt obligations. CDS = credit-default swap.
types of intermediaries (such as credit unions, mortgage banks, thrift companies, or pension funds), or to deal with consumer-protection issues in the financial industry.

Over the past 20 years or so, an increasing number of countries have started to examine how they regulate and supervise financial intermediaries. Recently a rapid transition has taken place toward so-called unified or integrated supervision, in which a single agency is responsible for supervising the entire financial system. Just five years ago the U.S.-style institutional structure—with at least one supervisor for banks, one for insurance firms, and one for securities firms—prevailed in more than 50 percent of countries worldwide. But by the end of 2004, 60 percent of countries had adopted either the model of a single supervisor for the financial system or that of a partially unified agency in which two of the main intermediaries in a country are supervised by one entity.

In East Asia at present, the prevailing model is one of multiple supervisors in which at least one agency supervises banks, another oversees securities firms, and a third the insurance companies. Jurisdictions with multiple supervisors include China, Hong Kong (China), Indonesia, the Philippines, and Thailand. Korea and Singapore, at the other extreme, have single agencies responsible for supervising the entire financial system.

The Pros and Cons of Unified Supervision

Given the global trend toward unified supervision and the interest that some East Asian countries have expressed in moving toward unified supervision, this section examines:

- The advantages and disadvantages of having single versus multiple supervisors; and
- The international experience of moving to unified (single) supervision.

Countries that have adopted unified supervision have done so in the belief that a single supervisor can be more effective than multiple supervisors in monitoring the soundness of individual financial institutions as well as the vulnerabilities of the entire financial system. In particular, they believe that unified supervision allows them to better understand and monitor risk transfers among different financial intermediaries and market segments; to better assess the real and potential impact of industry- and market-wide issues, such as market turbulence, that affect the financial system; to better understand the cross-sectoral nature of the business of financial conglomerates; to more easily develop policies toward the risks affecting a financial conglomerate as well as its single entities; and to use a consistent approach to monitoring similar financial products and services, regardless of what type of financial institution provides them.

Thus the advantage that is seen in having a single or unified supervisor is that it can reduce problems of regulatory arbitrage, gaps in regulation and supervision, lack of coordination between supervisory agencies, and weak accountability of supervisory agencies (the unified supervisor becomes accountable for its statutory objectives).

Further arguments can be made in favor of unified supervision, such as the maximization of economies of scale resulting from merging two or more of the existing supervisory agencies. Economies of scale are likely to arise from the move to unified management and the adoption of a unified approach to standard setting, authorization, supervision, enforcement, and a single set of central support services. Further, the consolidation of human capital can increase efficiency by permitting management to direct the best people to the most critical situations. Integrated supervision can also reduce the amount of information that financial intermediaries need to report to supervisory agencies, as the unified supervisor becomes the only authority that requests information from financial intermediaries.

At the same time, several arguments can be made against moving to unified supervision.

First, a mega-regulator may become excessively bureaucratic in its procedures and slow to react to emerging problems. Second, the effectiveness of supervision may be compromised if a new integrated agency fails to develop a consistent framework of regulation and supervision for the financial sector. While a certain degree of harmonization of supervisory practices among the banking, insurance, and securities supervisors is desirable to reduce regulatory arbitrage, it is important to recognize that the particular characteristics of each industry require specific regulations. It should also be noted that if the supervision of financial markets is poor under separate entities, it will still be poor under a unified
regime, unless weaknesses in regulation and supervision are effectively addressed. Finally, if the process of merging is not managed properly, it may result in the departure of experienced personnel and the demoralization of the rest of the staff, affecting the overall effectiveness of supervision during the transition period.

Table 8.2 summarizes the pros and cons of alternative supervisory structures. For countries trying to improve communication and collaboration among their different supervisors, integrated supervision may not always be the most appropriate means to achieve this goal. There are other effective ways, such as having senior policymakers from different agencies meet regularly and share relevant information. Effective collaboration among agencies can also be achieved through memoranda of understanding that formalize arrangements for the exchange of information and policy coordination among entities. And, in certain cases, a country’s legal framework may allow a supervisory agency to become the “lead” supervisor in key issues that involve one or more agencies, such as the resolution of a failing conglomerate.

Implementation Issues in Moving to Unified Supervision

A recent World Bank survey of 14 countries found that countries face several important obstacles during the transition from multiple to a single (or partially unified) supervisor (Table 8.3).

<table>
<thead>
<tr>
<th>Model</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unified supervisor</strong> (either inside or outside the central bank)</td>
<td>Facilitates the supervision of financial conglomerates on a consolidated basis. Allows better monitoring of issues affecting the entire financial system, as well as rapid policy responses. Allows the development and implementation of a unified approach of regulation and supervision across the entire financial system, reducing regulatory arbitrage. Strengthens accountability of supervisors. Maximizes economies of scale and scope, contributing to a better use of resources.</td>
<td>The merger process may reduce supervisory effectiveness during the transition period and possibly beyond. It may undermine the overall effectiveness of supervision by not recognizing the unique characteristics of the banking, securities, and insurance industries. There are other schemes to achieve prompt information-sharing and collaboration among existing agencies. May only work in certain countries and may be more suited for developed financial systems. Gains in terms of economies of scale may not be significant.</td>
</tr>
<tr>
<td><strong>Partially unified agencies</strong> (agencies supervising banks and securities firms, banks and insurance firms, or securities and insurance firms)</td>
<td>Provides some economies of scale. Does not over-concentrate power. Less costly than having one supervisor for each intermediary. Deals better with conglomerates than does the model of multiple supervisors, provided the dominant intermediary in a conglomerate is supervised by the agency.</td>
<td>Little chance of extracting synergies from different types of regulation. Cost still relatively high. Potential for culture clash between banking (prudential) and securities (conduct) regulators within the one agency. May involve conflict among objectives within the banking/securities regulator or between banking/insurance regulators. Still requires coordination and cooperation, especially if financial conglomerates are present. Potential for regulatory gaps, overlaps, and arbitrage remains.</td>
</tr>
<tr>
<td><strong>Separate supervisors</strong> (at least one for banks, one for securities firms, and one for insurers)</td>
<td>Agencies will be better prepared to understand the unique characteristics of the business that they supervise. A system of checks and balances among supervisors can be put in place.</td>
<td>Difficulties in cooperation and information sharing among different agencies. Difficulties in implementing consolidated supervision. Each agency may develop its own prudential rules, allowing the potential for regulatory arbitrage. High cost of regulation and supervision.</td>
</tr>
</tbody>
</table>
Legal constraints

The mission, objectives, powers, and scope of responsibilities of a new unified supervisory agency need to be defined in law. Moreover, in accordance with best practices (as defined in the Core Principles for banking, securities, and insurance respectively), the law should also provide the staff of the new entity with autonomy and legal protection for decisions and actions that they make in good faith, and establish a mechanism to ensure the proper accountability of the new entity.

In most countries, the establishment of such an agency has required the review and amendment of a large number of financial sector laws and regulations to enable the new entity to fulfill its functions effectively across the financial system. In fact, it is not surprising that some countries such as the United Kingdom have gone beyond amending their existing laws and introduced a single piece of new legislation that replaces a number of sector-specific laws.

In East Asia, 10 of the 14 unified supervisory agencies surveyed said that they experienced problems associated with an outdated or inadequate legal framework, at least during their first three years of existence (Table 8.3 above). The problems they faced included legal ambiguity with regard to their sources of funding, ownership of assets, power to endorse treaties with foreign counterparts, power to impose sanctions against market participants, and power to issue and amend prudential regulations. In addition, in a few countries, the staffs of the unified agencies were not legally protected and laws did not specify mechanisms to ensure the proper accountability of these agencies. These types of legal problems affected the capability of the agencies to fulfill their responsibilities at least during the first three years of operation. This suggests it is important that laws be updated before or shortly after a new agency has been established, to avoid weaknesses that may undermine its effectiveness and credibility.

Departure of experienced personnel and demoralization of staff

An unintended consequence of the unification of supervisory agencies has been the voluntary departure of experienced personnel from the merging institutions. Nine out of fourteen agencies reported that valuable staff had departed as a result of the uncertainty created by the merging process. A related problem has been the demoralization of the staff of the merged entities during and after unification. Half of the surveyed agencies have been affected by this problem. Many staff viewed the unification process with uncertainty, not just because of the possible redundancies but because of the delays in configuring the definitive structure of the unified institution, appointing or ratifying the new heads of departments, and setting the overall conditions of employment.

Managerial issues

The process of merging two or more supervisory agencies is a major managerial challenge because each of the agencies has its own identity and, in most cases, a well-established organizational structure and corporate culture. Moreover, each agency has its own approach to regulation and supervision, and operates with its own tools and procedures in monitoring a particular type of financial intermediary and ensuring compliance with laws and regulations.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Total agencies affected (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal constraints (requiring amendment of financial sector legislation)</td>
<td>67</td>
</tr>
<tr>
<td>Departure of experienced personnel</td>
<td>60</td>
</tr>
<tr>
<td>Delays in integration of IT systems and infrastructure of merged agencies</td>
<td>53</td>
</tr>
<tr>
<td>Demoralization of staff of the merged entity</td>
<td>53</td>
</tr>
<tr>
<td>Lack of mission objectives and clarity in the newly merged institution</td>
<td>13</td>
</tr>
<tr>
<td>Budgetary problems (insufficient funds to complete the integration of agencies)</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: de Luna, Martínez, and Rose 2003.

Note: Countries included in the survey were Australia, Canada, Denmark, Hungary, Iceland, Korea, Latvia, Luxembourg, Malta, Mexico, Norway, Singapore, Sweden, and the United Kingdom.
The management challenge of merging a number of different regulatory agencies should not be underestimated. If the unification process is not managed appropriately, there is a risk that it can go off-track. In addition to the loss of experienced personnel and demoralization of staff mentioned above, several agencies reported additional problems. Some related to the difficulty of developing a comprehensive plan to conduct the merger, including integrating the information technology systems and other essential infrastructure elements of the merged entities. Others concerned the difficulty of achieving economies of scale by downsizing the number of departments and personnel of the merging institutions, even when there was a clear duplication of functions. Moreover, two of the surveyed agencies faced budgetary constraints, as well as various problems in defining their mission and overall objectives, business plan, and work program; organizational structure with clear responsibilities for each unit; and responsibilities of senior staff.

**Other issues**

Respondents to the survey also pointed out that an important risk of establishing a unified agency is that the approach of one type of supervisor may prevail over the others. This may happen when one type of financial intermediary—usually commercial banks—dominates the financial sector, or when one of the merging agencies—normally the banking supervisor—has a disproportionate number of staff, resources, and facilities, so that the merger appears to be a takeover of the smaller supervisory agency rather than a process of integration. If not properly managed, such a situation may compromise the quality of supervision of the remaining financial segments, since the new agency may focus its resources on the dominant financial segment at the expense of the others.

In addition, several of the surveyed agencies emphasized the importance of establishing a clear framework that delineates the supervisory roles and responsibilities of the unified supervisor, the ministry of finance, and the central bank, and of communicating to the market the objectives, policies, and tools of the new institution.

Table 8.4 shows the time that the group of surveyed countries took to complete the various key activities related to the merger of their supervisory agencies, starting from when the decision to merge the entities was announced. On average, the activities took between one and two years. Respondents from all the countries agreed that whenever possible, these types of activities should be carried out as rapidly as possible, so as to minimize the uncertainty for the staff of the merging institutions.

If a country decides to adopt unified supervision, it is important that its policymakers define exactly what they are trying to achieve and how. An integrated supervisory agency can take different forms. Authorities may want to adopt either a partial scheme of integrated supervision (by merging only two of the main agencies) or a full one (by merging all supervisory agencies and creating a single supervisor for the entire financial system). Moreover, authorities may want to grant the new agency either a full or only a limited set of powers to regulate and supervise the

| **Table 8.4 Average Time Taken to Complete Key Tasks in Moving to Unified Supervision** |
|-----------------------------|---------------|
| **Task**                    | **Average time taken (years)** |
| Set the definitive organizational structure of the new merged entity | 2.0 |
| Set in the legal framework the scope of legal powers, responsibilities, and goals of the new regulatory agency | 1.5 |
| Set the strategic (business) plan of the new entity describing its objectives and strategies, and the actions needed to achieve them | 1.2 |
| Integrate the IT systems of the merged entities | 1.1 |
| Reallocate personnel and define new roles | 0.9 |
| Integrate budgetary processes | 0.8 |
| Appoint (confirm) the heads of the new departments of the merged entity | 0.7 |

Source: de Luna, Martínez, and Rose 2003.

*Note: Countries included in the survey were: Australia, Canada, Denmark, Hungary, Iceland, Korea, Latvia, Luxembourgh, Malta, Mexico, Norway, Singapore, Sweden, and the United Kingdom.*
financial system, keeping important powers such as license authorization and revocation within the domain of the ministry of finance, central bank, or other agencies.

Another important consideration is how far policymakers plan to go in harmonizing regulatory and supervisory powers across intermediaries. On the one hand, the new integrated agency may want to have its main departments organized on the basis of functional regulation, with each department devoted to specific functions across all intermediaries. On the other hand, the new agency may want to organize its departments according to the type of financial intermediaries it supervises.

One of the most difficult tasks of unifying regulatory agencies is to strike an appropriate balance between the different goals of regulation. Given the diversity of these goals—ranging from preventing systemic risk to protecting the individual consumer from fraud—it is possible that a single regulatory agency might not have a clear focus on the goals and rationale for regulation and might not be able to differentiate adequately among different types of institutions. Moreover, a poor definition of the goals of the new entity may provide little guidance for the regulator when different goals come into conflict.

Finally, should a country decide to move to unified supervision, timing is very important. The move to unified supervision should preferably be undertaken when the financial system is stable, allowing management more scope to adequately address the many complex issues associated with organizational change.
Diversification allows a financial system to allocate assets more efficiently and bear risks more easily. Since the 1997 financial crisis, policymakers in East Asia have focused on the need to diversify the financial sector, encouraging the participation of different types of specialized intermediaries and markets. Much progress has been made in this respect, but the East Asian economies still lag in the development of their bond markets relative to the other segments of the financial system.
<table>
<thead>
<tr>
<th>APPENDIX TABLE 1.1 Growth in Real GDP and Components of Aggregate Demand (annual percentage growth rates)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>GDP</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td>Average 2000–05</td>
</tr>
<tr>
<td>Private consumption</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td>Average 2000–05</td>
</tr>
<tr>
<td>Investment</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td>Average 2000–05</td>
</tr>
<tr>
<td>Exports</td>
</tr>
<tr>
<td>2004</td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td>Average 2000–05</td>
</tr>
</tbody>
</table>

Source: Haver Analytics, national data sources, and World Bank staff estimates.

a. Simple average of eight economies.

n.a. = not available.
## APPENDIX TABLE 1.2 Contributions to Growth  (annual percentage growth rates)

<table>
<thead>
<tr>
<th>Source</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net exports</td>
<td>−2.7</td>
<td>−0.5</td>
<td>−0.2</td>
<td>−2.5</td>
</tr>
<tr>
<td>Exports</td>
<td>4.3</td>
<td>3.5</td>
<td>2.1</td>
<td>17.7</td>
</tr>
<tr>
<td>Investment</td>
<td>2.8</td>
<td>2.1</td>
<td>0.9</td>
<td>3.8</td>
</tr>
<tr>
<td>Fixed investment</td>
<td>2.8</td>
<td>2.1</td>
<td>1.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Inventories</td>
<td>0.0</td>
<td>0.0</td>
<td>−0.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Public consumption</td>
<td>0.3</td>
<td>0.6</td>
<td>0.6</td>
<td>0.9</td>
</tr>
<tr>
<td>Private consumption</td>
<td>3.0</td>
<td>2.4</td>
<td>2.5</td>
<td>4.9</td>
</tr>
<tr>
<td>GDP growth</td>
<td>3.3</td>
<td>4.6</td>
<td>3.8</td>
<td>7.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Hong Kong, China</th>
<th>Rep. of Korea</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net exports</td>
<td>3.9</td>
<td>5.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Exports</td>
<td>25.9</td>
<td>18.7</td>
<td>16.2</td>
</tr>
<tr>
<td>Investment</td>
<td>0.5</td>
<td>0.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Fixed investment</td>
<td>0.8</td>
<td>0.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Inventories</td>
<td>−0.2</td>
<td>−0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Public consumption</td>
<td>0.1</td>
<td>−0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Private consumption</td>
<td>4.1</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>GDP growth</td>
<td>8.6</td>
<td>7.3</td>
<td>5.7</td>
</tr>
</tbody>
</table>
### APPENDIX TABLE 1.3 East Asia and Pacific: Investment as Share of GDP (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong, China</th>
<th>Rep. of Korea</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993–96</td>
<td>41.2</td>
<td>30.8</td>
<td>41.4</td>
<td>23.7</td>
<td>41.0</td>
<td>31.0</td>
<td>37.3</td>
<td>35.1</td>
</tr>
<tr>
<td>2000</td>
<td>36.4</td>
<td>22.2</td>
<td>27.3</td>
<td>21.2</td>
<td>22.8</td>
<td>27.5</td>
<td>31.0</td>
<td>32.4</td>
</tr>
<tr>
<td>2001</td>
<td>38.0</td>
<td>22.0</td>
<td>23.9</td>
<td>19.0</td>
<td>24.1</td>
<td>25.3</td>
<td>29.3</td>
<td>26.5</td>
</tr>
<tr>
<td>2002</td>
<td>39.2</td>
<td>20.9</td>
<td>24.0</td>
<td>17.6</td>
<td>23.8</td>
<td>22.8</td>
<td>29.1</td>
<td>23.7</td>
</tr>
<tr>
<td>2003</td>
<td>42.4</td>
<td>17.7</td>
<td>21.6</td>
<td>16.6</td>
<td>24.9</td>
<td>21.9</td>
<td>30.0</td>
<td>15.6</td>
</tr>
<tr>
<td>2004</td>
<td>44.2</td>
<td>23.1</td>
<td>22.6</td>
<td>17.0</td>
<td>27.1</td>
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n.a. = not available.

### APPENDIX TABLE 1.4 East Asia: Foreign Reserves Minus Gold (US$ billions)

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<tr>
<th>Year</th>
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<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Hong Kong, China</th>
<th>Rep. of Korea</th>
<th>Singapore</th>
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<td>Dec. 1998</td>
<td>149.188</td>
<td>23.516</td>
<td>25.559</td>
<td>9.273</td>
<td>28.825</td>
<td>89.650</td>
<td>51.975</td>
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<td>291.128</td>
<td>32.039</td>
<td>34.222</td>
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<td>38.055</td>
<td>111.896</td>
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<td>36.296</td>
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<td>118.360</td>
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<td>50.692</td>
<td>124.246</td>
<td>210.317</td>
<td>115.794</td>
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Sources: Haver Analytics, Datastream.

### APPENDIX TABLE 1.5 Net Capital Inflows (US$ billions)

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<th>Region</th>
<th>2002</th>
<th>2003</th>
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a. Sum of all capital account flows plus errors and omissions; derived as change in reserves, less current account.
### APPENDIX TABLE 1.6 Net Capital Flows by Type (US$ billions)*

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<th>Foreign direct investment</th>
<th>Portfolio</th>
<th>Other a</th>
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**Notes:**

a. Estimates for China, Malaysia, the Philippines, and Hong Kong, China.

b. Inclusive of errors and omissions.

### APPENDIX TABLE 1.7 Financial Sector Profile, 2005

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<tr>
<th>Economy</th>
<th>Nominal GDP</th>
<th>Bonds</th>
<th>Equities</th>
<th>Banks</th>
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<td>US$ billions</td>
<td>% of GDP</td>
<td>US$ billions</td>
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**Sources:**

### APPENDIX TABLE 2.1 Intra-Region Cross-Border Banking Investments

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<tr>
<th>Year of announcement</th>
<th>Investor</th>
<th>Investee/target</th>
<th>Transaction details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>DSB Group, holding company of DBS bank (Singapore)</td>
<td>Dao Heng Bank (Hong Kong, China)</td>
<td>DBS Group bought 71% of Dao Heng Bank from Hong Kong–based Guoco Group</td>
</tr>
<tr>
<td></td>
<td>HSBC (Hong Kong, China)</td>
<td>Bank of Shanghai (China)</td>
<td>HSBC acquired a % holding in Bank of Shanghai</td>
</tr>
<tr>
<td>2002</td>
<td>Hang Seng Bank HSBC subsidiary (Hong Kong, China) and IFC</td>
<td>Industrial Bank Co Ltd (China)</td>
<td>Hang Seng acquired 15.98% and IFC acquired a 4% equity stake</td>
</tr>
<tr>
<td></td>
<td>Consortium led by Temasek (Singapore) and Deutsche Bank (Germany)</td>
<td>Bank Danamon (Indonesia)</td>
<td>Majority stake</td>
</tr>
<tr>
<td></td>
<td>Kookmin Bank (Korea) and Tamasek Holdings (Singapore)</td>
<td>Bank International Indonesia (Indonesia)</td>
<td>51% stake</td>
</tr>
<tr>
<td>2003</td>
<td>DBS Group (Singapore)</td>
<td>Thai Military Bank and Industrial Finance (Thailand)</td>
<td>16% stake</td>
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<tr>
<td></td>
<td>OCBC (Singapore)</td>
<td>Bank NISP (Indonesia)</td>
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<td></td>
<td>HSBC (Hong Kong, China)</td>
<td>Bank of Communications (China)</td>
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<tr>
<td></td>
<td>Wang Hang Bank (Hong Kong, China)</td>
<td>First Sino Bank (Shanghai-based, China)</td>
<td>5% stake</td>
</tr>
<tr>
<td>2004</td>
<td>Tamasek (Singapore)</td>
<td>Langkah Bahagia (Malaysia). Under the deal, Langkah Bahagia has sold a 15.4% stake in Malaysian Plantations, the 100% shareholder of Alliance Bank Berhad. China Construction Bank (China) from SAFE Investments Ltd.</td>
<td>15.4% stake</td>
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<tr>
<td></td>
<td>Tamasek (Singapore)</td>
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<td>5.1% stake</td>
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### APPENDIX TABLE 4.1 Indicators of Health of the Banking Sector (percent)

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<tr>
<td>Hong Kong, China</td>
<td>17.4</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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  c. Universal and commercial banks, BSP selected indicators of financial sector.
  e. Hong Kong Monetary Authority consolidated all authorized institutions.*
### APPENDIX TABLE 4.2 Regulations for Foreign Bank Entry

<table>
<thead>
<tr>
<th>Economy</th>
<th>Selection criteria</th>
<th>Minimum capital requirements</th>
<th>Limitations on branches</th>
<th>Limitations on foreign ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>Must be among top 200 banks worldwide and have minimum A rating by credit-rating agency. Screened.</td>
<td>Higher paid-up capital required for foreign banks.</td>
<td>Branch offices allowed only in 10 cities.</td>
<td>Liberalized in 1999 to maximum of 99% foreign ownership. (But still need approval from Bank of Indonesia for any acquisition of over 25%.)</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>Must be among the top 150 banks worldwide to top 5 in country of origin. Screened.</td>
<td>No restrictions on branches or representative offices. Foreign branches allowed since 1967. Branches may only be opened one year after the establishment of a representative office.</td>
<td>No restrictions, except restrictions on single ownership (including groups), which applies generally. For domestic shareholders it is 4%. For foreign shareholdings the limit is 10% and greater flexibility is allowed for foreign investors in joint ventures.</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>Screened.</td>
<td>Since 1971 no new foreign banks allowed to enter, and those remaining are prohibited from expanding their branches and establishing offsite ATMs.</td>
<td>Foreign ownership of existing bank limited to 30%. Single ownership limits of 10%.</td>
<td>Foreign shareholding or acquisition in new investment limited to 51%. The foreign share of total banking assets is limited to maximum of 30%. Single ownership limit of 40%.</td>
</tr>
<tr>
<td>Philippines</td>
<td>Screened.</td>
<td>10 new branches allowed between 1995 and 2000, with a limit of 6 from a single bank.</td>
<td>Foreign shareholdings in commercial banks up to 100% for 10 years. After 10 years, foreigners not permitted to acquire additional shares unless their holdings are less than 49%. Limitation on individual ownership to 5%.</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>Screened.</td>
<td>Last foreign bank branch to be licensed was in 1978. Foreign banks limited to one branch office.</td>
<td>Since 1997, foreign shareholdings in commercial banks up to 100% for 10 years. After 10 years, foreigners not permitted to acquire additional shares unless their holdings are less than 49%. Limitation on individual ownership to 5%.</td>
<td></td>
</tr>
</tbody>
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## APPENDIX TABLE 4.3  Number of Mergers and Acquisitions Involving Commercial Banks in East Asia, 2000–04

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<thead>
<tr>
<th></th>
<th>Mergers</th>
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<tr>
<td></td>
<td>Government-led</td>
<td>Private-led</td>
<td>Private-led involving foreign banks</td>
<td>Privatization</td>
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<tr>
<td>2004</td>
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<td><strong>Rep. of Korea</strong></td>
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<td><strong>Hong Kong, China</strong></td>
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<tr>
<td>2000</td>
<td>1(10)</td>
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<tr>
<td>2001</td>
<td></td>
<td>2(4)</td>
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<td>3(8)</td>
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<td>2003</td>
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<td>2004</td>
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<tr>
<td><strong>Singapore</strong></td>
<td></td>
<td>1(2)</td>
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<tr>
<td>2000</td>
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<td>2004</td>
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</table>

**Sources:** Central bank annual reports, Bankscope, Bankers’ Almanac.

**Note:** Numbers of banks involved in the merger are in parentheses.
### APPENDIX TABLE 6.1 Summary of Minimum Capital Requirements for Entry into Insurance Markets

<table>
<thead>
<tr>
<th>Economy</th>
<th>Description</th>
<th>USS equivalent of lowest figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>RMB 200 mn plus capital per branch RMB 20 mn subject to a maximum RMB 500 mn. On establishment, 20% of a company's registered capital must be deposited with a bank designated by the CIRC as a guarantee fund. The deposit is increased in line with capital increases.</td>
<td>RMB 200 million = US$24.9 million</td>
</tr>
<tr>
<td></td>
<td>HKD 10 mn for a life insurer or a non-life insurer not writing compulsory classes.</td>
<td>HKD 10 million = US$1.3 million</td>
</tr>
<tr>
<td></td>
<td>- HKD 20 mn for a non-life insurer writing compulsory classes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- HKD 20 mn for a composite.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New applicants submit a business plan. The applicant and the authorities agree how much capital they will need based on the business plan, normally higher than the statutory minimum.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign branches do not have to make a capital deposit, and only non-life companies are subject to an asset localization rule, that they are required to maintain assets in Hong Kong, China at 80% of net liabilities and solvency margin with respect to the domestic business.</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>The minimum paid-up capital requirements prior to 1999 were:</td>
<td>IDR 2 billion = US$0.2 million</td>
</tr>
<tr>
<td></td>
<td>- Indonesian-owned companies: IDR 2 billion.</td>
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</tr>
<tr>
<td></td>
<td>- Joint venture companies: IDR 4.5 billion.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This was harmonized in 1999 for all new companies to IDR 100 bn for direct-writing companies regardless of the nationality of the shareholders. Existing companies were exempt from the change provided they met new risk-based capital provisions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A collateral deposit is required with an approved bank or banks in the name of the Ministry of Finance for 20% of the paid-up capital.</td>
<td></td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>Minimum capital levels are calculated by class of business. The minimum capital for a mono-line insurer writing only engineering or title insurance is KRW 5 bn. The lowest limit for a life insurer is KRW 10 bn. For a multi-line life or non-life insurer, the sum of the various requirements applies subject to a maximum of KRW 30 bn. If the company obtains at least 90% of its business through direct channels (phone, mail, Internet) then the figure is reduced by one third.</td>
<td>KRW 5 billion = US$5.1 million</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Minimum paid-up capital is MYR 100 mn. Licensed foreign insurers other than a licensed foreign professional reinsurer must also maintain, in Malaysia, a surplus of assets over liabilities of an amount not less than the required minimum paid-up share capital.</td>
<td>MYR 100 million = US$26.9 million</td>
</tr>
<tr>
<td>Philippines</td>
<td>For new companies (life and non-life) and existing life companies:</td>
<td>PHP 30 million = US$0.6 million</td>
</tr>
<tr>
<td></td>
<td>- A domestic insurer: PHP 75 mn plus a surplus fund of PHP 25 mn.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- A foreign-owned insurer:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- PHP 250 mn plus a surplus fund of PHP 50 mn, where foreign equity is 60% or more.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- PHP 150 mn plus a surplus fund of PHP 50 mn where foreign equity is between 40% and 60%.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- PHP 75 mn plus a surplus fund of PHP 25 mn where foreign equity is 40% or less.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Branch offices of foreign companies must deposit securities with the authorities of not less than PHP 300 mn.</td>
<td></td>
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<tr>
<td></td>
<td>For existing non-life companies:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Non-life domestic companies with paid-up capital less than PHP 30 mn can write up to three times their paid-up capital.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Those with paid-up capital of PHP 50 mn or more have no limit.</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>For a non-life insurance company, minimum capital is:</td>
<td>SGD 5 million = US$3.1 million</td>
</tr>
<tr>
<td></td>
<td>- For a mono-line insurance company (one class of business only): SGD 5 million.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- For a direct insurer (multi-class): SGD 10 million.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For a life insurer, the minimum is SGD 5 million.</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>For non-life insurers the minimum capital requirement is THB 30 million, but companies licensed from 1997 are required to have THB 300 million. For life insurers, companies licensed since 1995 must have minimum capital of THB 500 million. Companies established before this date have a requirement that is 2% of reserves, subject to a minimum of THB 50 million. Non-life insurers must also lodge a security deposit with the authorities of THB 3.5 million for each class of business written. For this purpose, non-life business is divided into four classes: fire, marine and transit, motor, and miscellaneous. Life insurers must place a security deposit of THB 20 million.</td>
<td>THB 30 million = US$0.8 million</td>
</tr>
</tbody>
</table>
### APPENDIX TABLE 6.2 Summary of Provisioning and Capital Regulations in Insurance Markets

<table>
<thead>
<tr>
<th>Economy</th>
<th>Solvency margin</th>
<th>Regulation of technical provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>China</strong></td>
<td>Non-life leverage rule: Net retained premiums may not exceed four times a company's capital and surplus. Solvency margin: defined as the difference between a company's admissible assets and its liabilities: Non-life: the greater of: - 18% of net premium up to RMB 100 million plus 16% of the excess, or - 26% of the average of the last three years’ net incurred claims up to RMB 70 mn plus 23% of the excess. Insurance companies that have been in business for less than three years are only required to meet the premium income solvency measure. Life: The sum of: - 4% of the year-end mathematical reserve for traditional business; - 1% of the year-end mathematical reserve for unit-linked business; - 0.1% of total sums assured for term-life policies with terms of less than three years; - 0.15% of total sums assured for term-life policies with terms of more than three years but less than five years; and - 0.3% of total sums assured for term-life policies with terms in excess of five years.</td>
<td>Non-life insurers are required to establish unearned premium reserves, catastrophe reserves, and claims reserves including IBNR. Reserves may be established net of ceded reinsurance. New regulations came into effect on December 15, 2004 and introduced international standards of reserving practice particularly the proportionate methods for UPP. Outstanding-loss reserves must represent the full settlement cost, are established on a gross basis, and may not be discounted for the time value of money. IBNR reserves are calculated by two recognized methods; the higher result is adopted. Life insurers establish a mathematical reserve using tables that are either equivalent to or more conservative than the approved pricing-mortality tables. The interest rate is prescribed as the lower of 7.5% and the assumed pricing rate. The maximum permissible interest rate for pricing current new business is 2.5%. Allowance for initial expenses in the valuation is permitted through the Zillmer method. For life insurance, regulations specify, among other things, the rate of interest to be applied for long-term business. For non-life insurance there are no statutory reserve requirements, though the authorities expect companies to comply with prudential guidance notes providing for unearned premium reserves, unexpired risk reserves, claims reserves, and IBNR reserves. There is no requirement for equalization reserves or catastrophe reserves. Non-life provisions are not normally discounted as this requires permission from the authorities and such permission is not normally given. Annual actuarial review of claims reserves is required for all non-life insurers with gross written premiums or technical reserves for vehicle third-party liability and worker’s compensation over HKD 20 mn. For all types of insurance, credit for reinsurance is allowed provided that the authorities are satisfied as to recoverability. Guidance has been issued tying this satisfaction to rating-agency grades and, for those of lower grade, collateral. Reinsurance with related companies is subject to a special limitation. Regulations introduced in 1999 and 2003 require unearned premium reserves at specified and conventional rates, provisions to be made for outstanding claims on the basis of “reasonable estimates,” and IBNR reserves. Life insurers are also obliged to determine reserves consistent with the above and to use a net premium method for their traditional business subject to special limitations.</td>
</tr>
<tr>
<td><strong>Hong Kong, China</strong></td>
<td>Minimum: For non-life insurers, the minimum solvency margin (admissible assets over liabilities) is set at the minimum capital requirement of HKD 10 mn or HKD 20 mn respectively depending on whether or not the company writes compulsory classes. For life insurers, the minimum is HKD 2 mn. The minimum solvency margin for composite insurers is the applicable non-life figure plus HKD 2 mn in respect of long-term business. For non-life insurers, the required solvency margin is determined on a premium income or a claims outstanding basis, whichever is the greater. The margin is then 20% of premiums or claims up to HKD 200 mn and 10% of the excess. “Premiums” are defined as the greater of 50% of gross written premiums or 100% of gross written premiums less ceded reinsurance. Outstanding claims are defined as the greater of 50% of gross claims outstanding or 100% of gross claims outstanding less reinsurance recoveries plus the unexpired risk reserve. For life insurers, the solvency margin is the sum of: - a percentage of the mathematical reserve (generally 4% for traditional business and 1% for unit-linked business); and - a percentage of the sum at risk (0.3% for traditional business).</td>
<td>For life insurance, regulations specify, among other things, the rate of interest to be applied for long-term business. For non-life insurance there are no statutory reserve requirements, though the authorities expect companies to comply with prudential guidance notes providing for unearned premium reserves, unexpired risk reserves, claims reserves, and IBNR reserves. There is no requirement for equalization reserves or catastrophe reserves. Non-life provisions are not normally discounted as this requires permission from the authorities and such permission is not normally given. Annual actuarial review of claims reserves is required for all non-life insurers with gross written premiums or technical reserves for vehicle third-party liability and worker’s compensation over HKD 20 mn. For all types of insurance, credit for reinsurance is allowed provided that the authorities are satisfied as to recoverability. Guidance has been issued tying this satisfaction to rating-agency grades and, for those of lower grade, collateral. Reinsurance with related companies is subject to a special limitation. Regulations introduced in 1999 and 2003 require unearned premium reserves at specified and conventional rates, provisions to be made for outstanding claims on the basis of “reasonable estimates,” and IBNR reserves. Life insurers are also obliged to determine reserves consistent with the above and to use a net premium method for their traditional business subject to special limitations.</td>
</tr>
<tr>
<td><strong>Indonesia</strong></td>
<td>All companies are required to maintain a ratio of assets to liabilities of at least 120% of risk-based capital (RBC). RBC was phased in as follows: 2000: 15% 2001: 40% 2002: 75% 2003: 100% 2005: 120%.</td>
<td>Non-life insurers are required to establish unearned premium reserves, catastrophe reserves, and claims reserves including IBNR. Reserves may be established net of ceded reinsurance. New regulations came into effect on December 15, 2004 and introduced international standards of reserving practice particularly the proportionate methods for UPP. Outstanding-loss reserves must represent the full settlement cost, are established on a gross basis, and may not be discounted for the time value of money. IBNR reserves are calculated by two recognized methods; the higher result is adopted. Life insurers establish a mathematical reserve using tables that are either equivalent to or more conservative than the approved pricing-mortality tables. The interest rate is prescribed as the lower of 7.5% and the assumed pricing rate. The maximum permissible interest rate for pricing current new business is 2.5%. Allowance for initial expenses in the valuation is permitted through the Zillmer method. For life insurance, regulations specify, among other things, the rate of interest to be applied for long-term business. For non-life insurance there are no statutory reserve requirements, though the authorities expect companies to comply with prudential guidance notes providing for unearned premium reserves, unexpired risk reserves, claims reserves, and IBNR reserves. There is no requirement for equalization reserves or catastrophe reserves. Non-life provisions are not normally discounted as this requires permission from the authorities and such permission is not normally given. Annual actuarial review of claims reserves is required for all non-life insurers with gross written premiums or technical reserves for vehicle third-party liability and worker’s compensation over HKD 20 mn. For all types of insurance, credit for reinsurance is allowed provided that the authorities are satisfied as to recoverability. Guidance has been issued tying this satisfaction to rating-agency grades and, for those of lower grade, collateral. Reinsurance with related companies is subject to a special limitation. Regulations introduced in 1999 and 2003 require unearned premium reserves at specified and conventional rates, provisions to be made for outstanding claims on the basis of “reasonable estimates,” and IBNR reserves. Life insurers are also obliged to determine reserves consistent with the above and to use a net premium method for their traditional business subject to special limitations.</td>
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(continued)
### APPENDIX TABLE 6.2 Summary of Provisioning and Capital Regulations in Insurance Markets (continued)

<table>
<thead>
<tr>
<th>Economy</th>
<th>Solvency margin</th>
<th>Regulation of technical provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rep. of Korea</td>
<td>The RBC formula is based on a series of risk measures including asset-default risk, cash-flow mismatch, risk of deterioration in anticipated claims, reinsurance risks, and the risk of insufficient premium due to worse than anticipated investment results. Companies that fail to meet the phase-in requirements should have a rectification plan with the insurance directorate. It is generally considered that not all companies met the phase-in plan on the due dates. Short-term insurance: the greater of 17.8% of the previous year's net retained premiums, or 25.2% of the average of the previous three years' net incurred claims. Long-term insurance: 4% of the reserves for the savings element plus the short-term insurance requirements with respect to the risk elements of the business. Admissible assets for solvency purposes comprise the usual capital items, subordinated debts plus several reserve items such as catastrophe reserves, asset-soundness provisions, excess reserves for savings premiums. Inadmissible assets are deferred acquisition costs, intangibles, pre-paid expenses, and deferred tax liabilities. Subordinated debt may not exceed 50% of shareholders’ equity. A risk-based capital system is to be implemented in 2007.</td>
<td>to a maximum rate of interest assumed (9% for IDR-denominated policies and 5% for foreign-denominated policies). For non-life insurers, 1% of net premium is required to be held as part of the collateral deposit arrangements. For life insurers, the equivalent allocation is 5% of the premium reserve including reserve for unearned premiums. For short-term business, companies are required to maintain unearned-premium reserves, catastrophe reserves, and claims reserves. Unearned-premium reserves are calculated in different ways for different classes of business and may be established net of ceded reinsurance. Catastrophe reserves may be accumulated in proportion to underwriting profit until they reach a maximum of 50% of the previous year’s net earned premium. The corporate tax law effectively limits annual increases in catastrophe reserves to 2% of net earned premiums excluding savings premiums. Claims reserves must represent the full cost of settling incurred claims without discounting and may be established net of anticipated reinsurance recoveries. IBNR reserves are required for short-term business lines and were introduced in 2004 for long tail lines as well as with a three-year transition period. Other long-term business is subject to a net premium valuation approach under the regulation but with scope for acceptable or necessary alternatives mandated by the FSS. For non-life insurers, regulations require provisions to cover insurers’ potential liabilities. Unearned premium provisions for all non-life classes other than marine need to be calculated on the 1/24ths system, at least, with a provision of 20% for general expenses and acquisition costs. In the case of marine cargo, aviation, and transit, not less than 25% of the annual premiums must be reserved. Although claims and IBNR provisions are required, their determination is less specific. IBNR provisions must be determined on the insurer’s claims statistics for the previous seven years. Actuarial certification of the outstanding claim provisions is not compulsory but can be required by the authorities. For life insurance, net premium valuation methods with defined discount rates and mortality tables are prescribed. Non-life insurers must maintain a provision of 40% of gross premiums for all classes except marine cargo, where a separate but equivalently intended formula applies. For life insurance, a net-premium valuation method with prescribed mortality tables and maximum discount rates applies.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>For non-life insurance: the higher of the following: 25% of the first MYR 50 mn of net premium and 20% of the excess or 26% of the first MYR 25 mn of net incurred claims and 23% of the excess or MYR 50 mn. For life insurance: Several specified percentages of mathematical provisions, sums at risk, and net premiums are applied subject to a minimum of MYR 50 mn for direct insurers and MYR 10 mn for branch operations. Companies transacting life and non-life insurance business maintain separate solvency margins for each class.</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>For non-life companies, 10% of the net premium income. For life insurance companies, 2% per thousand of the total amount of insurance in force. Both are subject to a minimum margin, of PHP 500,000.</td>
<td></td>
</tr>
<tr>
<td>Economy</td>
<td>Solvency margin</td>
<td>Regulation of technical provisions</td>
</tr>
<tr>
<td>---------</td>
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<td>-----------------------------------</td>
</tr>
<tr>
<td>Singapore</td>
<td>For both life and non-life insurers, a risk-based capital margin is determined, introduced in 2004. The formula is subject to a minimum of SGD 5 mn and the authorities intervene at a trigger of 120% of the minimum. The requirements take into account insurance risks and investment risks. The authorities can adjust capital requirements to capture risks that cannot be quantitatively determined, such as operational risks.</td>
<td>Non-life insurers must follow generally accepted accounting principles, bases, and policies, follow actuarial principles, make proper provisions for all liabilities, and use prudent assumptions. Non-life insurers are required to hold provisions for unearned premiums at least at the level of accuracy of the 1/24ths method, or an unexpired risk provision if higher, reflecting a 75% level of sufficiency. Provisions for outstanding claims are also prescribed at the same level of sufficiency. Actuarial certification of premiums and claims reserves based on 75% level of sufficiency was introduced in 2002. Detailed rules also exist to oversee life-insurance provisioning. Under the Non-Life Insurance Act, 1992, companies are required to establish premium and claim reserves. Unearned premium reserves should use the 1/24ths method although the more accurate 365ths basis is also used. Claims reserves should be determined on a prudent and conservative incurred basis without discounting. A minimum IBNR provision of 2.5% of net written premiums is required. An equalization reserve is required setting aside at least 5% of net income each year until it reaches 10% of capital. Life insurers are subject to specific reserve requirements related to the surrender value, the net premium reserve, and the annual net premium.</td>
</tr>
<tr>
<td>Thailand</td>
<td>The non-life solvency margin required is 10% of the preceding year’s written premium net of reinsurance, subject to a minimum of THB 30 mn. The life insurance solvency margin is 2% of reserves subject to the THB 50 million minimum.</td>
<td></td>
</tr>
</tbody>
</table>
Reliable and comprehensive information on financial institutions’ financial condition is fundamental to effective corporate governance, market discipline, and official oversight. If such information is not available, market discipline may not be properly imposed and, consequently, the safety and soundness of the financial system may not be assured. In this context, the adoption of internationally accepted accounting standards would facilitate the production of transparent financial statements and high-quality data on financial institutions as well as the financial sector at large.

The International Financial Reporting Standards (IFRSs) have been developed by the International Accounting Standards Board (IASB) to secure international consistency and harmony in accounting standards. They are comprehensive and well-defined accounting principles that command wide international acceptance. Many countries have either adopted the IFRSs or are basing their local standards on them.

The framework of the IFRSs defines the objectives of financial statements, identifies the qualitative characteristics that make information useful, and defines the basic elements of financial statements and the concepts in recognizing and measuring them.

The IFRSs address the general-purpose financial statements designed to meet the needs of shareholders, creditors, employees, government agencies, and the public for information about a public entity’s financial position, performance, and cash flows. They are not tailored to meet the specific information needs of users. However, it should be emphasized that all the standards are applicable to financial institutions as well as to commercial enterprises. Moreover, some of the standards are particularly important in the financial sector and have a significant effect on financial institutions. Below is a summary of the standards that are particularly important for well-functioning financial markets.

**IAS 1: Presentation of Financial Statements**

IAS 1 sets forth the broad guidelines for the presentation and preparation of financial statements and the basis for comparability both with the entity’s financial statements of previous periods and with the financial statements of other entities. The objective of general-purpose financial statements is to provide information
about assets, liabilities, equity, income, and expenses including gains and losses, other changes in equity, and cash flows. Therefore, a complete set of financial statements should include a balance sheet, income statement, changes in equity statement, cash flow statement, and accounting policies and notes.

The standard requires a fair presentation of the financial position, financial performance, and cash flows of an entity—that is, the faithful representation of the effects of transactions, other events, and conditions in accordance with the definitions and recognition criteria for assets, liabilities, income, and expenses. The standard also covers going concern, accrual basis, consistency, materiality and aggregation, offsetting, comparative information, reporting period, balance sheet, income statement, changes in equity statement, accounting policies and notes, and disclosures about dividends.

**IAS 7: Cash-flow Statements**

IAS 7 requires the presentation of information about the historical changes (inflows and outflows) in cash and cash equivalents of an entity by means of a cash-flow statement, which classifies cash flows during the period according to operating, investing, and financial activities. This statement should help users to assess an entity’s ability to generate positive future cash flows and meet its obligations and pay dividends, the reasons for differences between income and associated cash receipts and payments, etc.

Operating activities are the main revenue-producing activities of the entity aside from investment or financing activities, so operating cash flows include cash received from customers and cash paid to customers and employees. Investing activities are the acquisition and disposal of long-term assets and other investments that are not considered cash equivalents. Financing activities are activities that alter the equity capital and borrowing structure of the entity.

**IAS 8: Accounting Policies, Changes in Accounting Estimates, and Errors**

IAS 8 sets forth the guidelines for selection and application of accounting policies, consistency of accounting policies, changes in accounting policies and accounting estimates, and corrections of prior-period errors. Accounting policies are the specific principles, bases, conventions, rules, and practices applied by an entity in preparing and presenting financial statements.

A change in accounting estimates is an adjustment of the carrying amount of an asset or liability, or related expense, resulting from reassessing the expected future benefits and obligations associated with that asset or liability. Prior-period errors are omissions from, and misstatements in, an entity’s financial statements for one or more prior periods arising from a failure to use, or from misuse of, reliable information that was available and could reasonably be expected to have been obtained and taken into account in preparing those statements.

Changes in accounting policy and correction of errors should be accounted for retrospectively, with comparative information restated along with the amount of the adjustment. Changes in accounting estimates are accounted for in the income statement when identified. The standard also requires disclosure relating to changes in accounting policies and estimates, and prior-period errors presenting major items to be disclosed.

**IAS 14: Segment Reporting**

IAS 14 establishes principles for reporting financial information about different components of an entity’s operations, as well as by line of business and by geographical area, based on a profile of risks and returns and internal reporting structure to help financial statement users better understand the entity’s performance. This must be applied by entities whose debt or equity securities are publicly traded and those in the process of issuing such securities in public securities markets.

The purpose of segment reporting is to assist investors and lenders in assessing risks and returns and the potential of an entity, and in making more informed judgments. The standard defines reportable segments as business and geographical segments for which a majority of revenue is earned from business activities, one as primary format, the other as secondary. Major criteria are 10 percent or more of total revenue, 10 percent or more of total profit or loss, and 10 percent or more of total assets. IAS 14 details guidance as to which items of revenue and expense are included in segment revenue and expense.
IAS 21: The Effects of Changes in Foreign Exchange Rates

IAS 21 prescribes how to include foreign-currency transactions and foreign operations in the financial statements using a presentation currency. The standard covers reporting of foreign-currency transactions, conversion of the results and financial positions of foreign operations, and treatment of the disposal of foreign operations. The objectives of the conversions are to provide information relative to the expected economic effects of exchange-rate changes on an entity’s cash flows and equity, and financial results of each individual foreign consolidated entity as reflected by the functional currency of the reporting entity.

The principal issues concern which exchange rate(s) to use for recording and conversion purposes, and how to report the effects of changes in exchange rates in the financial statements. Basically, the conversion of transactions denominated in foreign currency is at the exchange rate in operation on the date of the transaction, followed by reporting using the closing or historical rates at each subsequent balance-sheet date, whereas the amounts in the foreign operation’s balance sheet are translated using the closing rate. The exception is equity balances, for which the historical exchange rate is used.

IAS 24: Related-party Disclosures

IAS 24 requires that an entity’s financial statements contain the disclosures necessary to draw attention to the possibility that its financial position and profit or loss may have been affected by the existence of related parties and by transactions and outstanding balances with such parties. Related-party relationships are generally determined by reference to the control or indirect control of one party by another, or by the existence of joint control or significant influence by one party over another.

The objective of the standard is to define related-party relationships and transactions and to enhance disclosure thereof. A related-party transaction is a transfer of resources, services, or obligations between related parties. If there are transactions between related parties, the entity must disclose the nature of the related-party relationship as well as information about the transactions and outstanding balances necessary for understanding the potential effect of the relationship on the financial statements.

IAS 27: Consolidated and Separate Financial Statements

IAS 27 requires the preparation by a parent entity of consolidated financial statements that cover all subsidiaries. The objective of the standard is to provide users of the financial statements with information about the financial position, results of operations, and changes in financial position of the group as a whole. It includes sets of standards to be applied in the preparation of consolidated financial statements for a group of entities under the control of a parent, and in the accounting treatment of investments in subsidiaries, jointly controlled entities, and associates when an entity elects, or is required by local regulations, to present separate financial statements.

The standard covers identification of subsidiaries, presentation of consolidated accounts, and consolidation procedures. It also sets guidelines on the disclosure required in both consolidated financial statements and separate financial statements that are prepared for a parent that is permitted not to prepare consolidated financial statements.

IAS 30: Disclosures in Financial Statements of Banks and Similar Financial Institutions

IAS 30 prescribes appropriate presentation and disclosure standards for banks and similar financial institutions that supplement the requirements of other standards. It encourages the management of a bank to provide a commentary on the financial statements that describes the way it manages and controls its liquidity and solvency, as well as the full spectrum of risks associated with the operations of the bank. The goal is to provide users with information required to evaluate the financial position and performance of banks and to enable them to better understand the special characteristics of banking operations.

The standard requires a bank to present a balance sheet that groups assets and liabilities by nature and lists them in an order that reflects their relative liquidity, as well as prescribes specific assets and liabilities to be disclosed. It also prescribes specific items of the income statement to be reported. Additional disclosure requirements include fair values of financial assets and liabilities, off-balance sheet items, maturities and concentrations of assets and liabilities, losses on loans and advances,
amounts set aside for general banking risks, and assets pledged as security.

**IAS 32: Financial Instruments: Disclosure and Presentation**

The objective of IAS 32 is to enhance financial-statement users’ understanding of the significance of on- and off-balance-sheet financial instruments to an entity’s financial position, performance, and cash flows, and the assessment of the amounts, timing, and certainty of future cash flows associated with those instruments. The standard prescribes requirements for the presentation of on-balance-sheet financial instruments and identifies information that should be disclosed about both on-balance-sheet and off-balance-sheet financial instruments.

The standard requires that a financial instrument be classified as either a financial liability or an equity instrument according to the substance of the contract, not its legal form. In the case of compound instruments, which have both a liability and an equity component from the issuer’s perspective, it requires that component parts be accounted for and presented separately according to their substance. The standard also covers disclosure requirements for all financial instruments; it requires disclosures about risk management, terms and conditions of financial instruments, interest rate and credit risks, fair value of financial instruments, and hedging.

**IAS 36: Impairment of Assets**

IAS 36 requires that assets be carried at no more than their recoverable amount and defines how the recoverable amount is calculated. It requires an entity to consider impairment when there is an indicator of impairment, and to disclose it. IAS 36 has a list of external and internal indicators of impairment with materiality consideration. The objective of the standard is to provide detailed guidance on how to exercise prudence in measuring the amounts of assets shown on the balance sheet.

The standard applies to most assets including land, buildings, machinery and equipment, investment property carried at cost, intangible assets, goodwill, investments in subsidiaries, associates, and ventures. An impairment loss should be recognized whenever the recoverable amount is below the carrying amount. The standard requires disclosures by both class of assets and segment. Also, individual impairment loss and/or aggregate impairment loss should be disclosed in accordance with the materiality consideration.

**IAS 39: Financial Instruments: Recognition and Measurement**

The objective of IAS 39 is to establish principles for recognizing, measuring, and disclosing information about financial instruments in the financial statements. The standard requires that all financial assets and liabilities, including all derivatives, be recognized on the balance sheet. Financial assets and liabilities should be recognized when the entity becomes a party to the contractual provisions of the financial instrument. The initial measurement of the financial assets is their fair value, which is normally the consideration given, including directly related transaction costs. Subsequently, those should be measured at fair value with some exceptions.

The standard requires financial assets to be classified in one of four major categories to determine how a particular financial asset is recognized and measured in the financial statements: financial assets at fair value through profit or loss, available-for-sale financial assets, loans and receivables, and held-to-maturity investments. The general principle is that available-for-sale financial assets are measured at fair value in the balance sheet, whereas held-to-maturity investments are measured at amortized cost.

In addition, IAS 39 recognizes two classes of financial liabilities: financial liabilities at fair value through profit and loss, and other financial liabilities at amortized cost using the effective-interest method. Initial measurement is at fair value, which is usually the consideration received minus transaction costs.

IAS 39 significantly increases the use of fair value in accounting for financial instruments, particularly on the asset side of the balance sheet. Accordingly, reporting most liabilities at cost, while introducing more fair-value accounting on assets, is likely to increase the risk of volatility in earnings and equity.

IAS 39 permits hedge accounting under certain circumstances that meet stringent qualifying criteria in relation to documentation and hedge effectiveness. The standard uses specific criteria as a precondition for hedge accounting.
Basel II
Issues

The Basel II Accord was designed to address weaknesses of the 1988 Basel Capital Accord (Basel I) and to help disseminate best practice in risk management within an integrated framework for banks, supervisors, and other stakeholders. Although Basel I had proved effective until the mid-1990s in raising capital levels and in leveling the playing field for the G-10 countries’ internationally active banks, the dramatic changes that then took place in the way these banks carry out their activities progressively reduced the efficacy of Basel I. The same trends in banking are being witnessed in East Asia and may be expected to gather strength over time.

Most of Basel I’s current weaknesses originate in its crude measurement of risks. For instance, there is mainly one risk weight\textsuperscript{1}\textsuperscript{1}\textsuperscript{1} for corporate exposures (100 percent), which has generated some perverse incentives, including for banks to:

- Sell high-quality assets and retain exposures to lower-quality borrowers, since both are subject to the same charge, irrespective of the underlying differences in risk profiles.
- Arbitrage regulatory ratios through securitization. By securitizing assets while providing credit enhancements to the securitization, for example by keeping its subordinate tranche, banks may continue to hold the bulk of the credit risks even though these are not reflected in their Basel I ratios.
- Increase their operations without much impact on their capital ratios. For instance, Korean banks in the past were able to increase the credit-card business or to offer very large credit lines to corporations while maintaining their capital ratios broadly unchanged, since commitments with a maturity of less than one year have a zero percent risk weight.

A large proportion of the advanced industrial countries’ internationally active banks in recent years have significantly altered their strategy, from holding assets on their balance sheets to actively managing and redistributing risks. This trend has considerably heightened the weaknesses associated with Basel I. Indeed, in recent years the correlation between banks’ risk portfolios and capital ratios has decreased, while the probability that banks with similar capital ratios face different levels of risk has increased. Moreover, Basel I does not provide clear incentives for banks to improve their risk management.
Basel II is intended to accommodate the changes in the most sophisticated banks’ risk profiles and to provide incentives for all banks to improve their risk-management processes. Consequently, it includes both advanced approaches, developed to measure the most sophisticated institutions’ risks using a “common language,” and standardized approaches which (though simpler than the advanced approaches) are more risk-sensitive than Basel I and should encourage banks to progressively catch up with the most sophisticated institutions. Some banking systems in the region, such as those of Singapore and Hong Kong (China), clearly encompass the entire range of institutions for which Basel II was designed.

Much attention has been devoted to the technical aspects of the so-called Pillar 1 advanced approaches. However, while good progress has been made in quantifying risk in recent years, risk management is also a matter of expert knowledge and judgment. An important benefit of Basel II should come from the greater awareness of risk that is instilled in banks, incentives for improved risk analysis and management systems, and the greater incentives for correctly allocating capital and pricing risks. The increased role that Basel II gives to risk officers, as well as the greater risk awareness of lending officers that it should stimulate, are important aspects of the framework. The improved risk awareness of the institutions and a more formalized and forward-looking approach to granting credit may also be factors that help reduce the procyclicality of credit.

Some common practices observed in the past, such as debt rescheduling to avoid early recognition of credit risk, or government policy-directed lending, leading to credit decisions based on factors other than sound risk evaluations, need to be overcome in order to implement Basel II effectively.

At the same time, a supervisory focus on meeting the specific requirements of Basel II, with the associated reallocation of resources, should not distract supervisors from more immediate concerns such as building a strong system for day-to-day risk-based supervision.

**Overall Framework**

Special attention should be paid to the following issues:

- The scope of application (some countries will implement Basel II only for their largest banks while others will apply it to all their credit institutions).
- The implementation time frame (for example, Malaysian banks should be authorized to apply the Standardized Approach (SA) in 2008 and the Foundation Internal-Ratings-Based Approach (F-IRB) in 2010).
- The set of approaches that will be implemented domestically. While all three pillars are seen to be mutually reinforcing for the success of the new regulatory framework, countries could consider adopting Pillars 2 and 3 even if the implementation of the Pillar 1 advanced approaches is not deemed appropriate. Indeed, Pillars 2 and 3 largely embody good banking and good banking supervision principles that should be part of all supervisory systems. Conversely, devoting insufficient resources and efforts to implementing Pillars 2 and 3 is likely to result in failure to achieve the objectives of better risk management and financial stability envisaged under Basel II.

- Some countries may decide not to apply some approaches (e.g., the operational risk Advanced Measurement Approach (AMA) in Hong Kong (China) or the F-IRB in the United States).
- Non-Basel II approaches may complement the framework. (For example, to address small banks’ concerns over the complexity and costs of implementing Basel II, the Hong Kong Monetary Authority has developed a “basic approach” for credit risk which is a modified version of Basel I with slight definitional changes and the incorporation of an operational risk charge.)

- The transitional floors for the advanced approaches. These floors should guarantee that banks only get capital relief, compared to Basel I, once the robustness of the advanced approaches has been fully ascertained.
- For banks that want to gradually adopt the advanced approaches, clear provisions must be in place regarding the roll-out period to avoid “cherry picking” (that is, using advanced approaches when these reduce capital requirements and using standard approaches in other cases).
Boundaries between retail and corporate portfolios, which in some cases rely on absolute levels and which need to be adapted to local conditions.\textsuperscript{167}

The impact of the implementation of Basel II on supervisory resources and practices (for example enhanced disclosure requirements, technical dialogue with banks).

The methods that will be implemented by supervisors at the outset and on an on-going basis to assess banks’ readiness for the advanced approaches and to use Basel II inputs in their supervisory practices.\textsuperscript{168}

Cooperation between home and host supervisors. A recent survey of East Asian banking institutions reveals several concerns with respect to home-host supervision, including coordinating home-host supervisors’ requests, the significant historical differences in the degree of cooperation between home and host supervisors across the region, the role that host supervisors will play in the validation process, the likely need for institutions to report under multiple Pillar 1 approaches, the availability of data at the host-country level, and the lack of common definitions of “materiality” and other varying definitions (of default, for example).

Even though the Basel II framework was calibrated to maintain overall capital requirements as broadly unchanged, there could be significant changes in capital requirements between credit institutions\textsuperscript{169} and banking systems.

Moreover, it is still difficult to assess the impact of the advanced approaches of Basel II on capital requirements. This was evident from the results of the fourth quantitative impact study carried out by the U.S. authorities at the end of 2004:

- Where appropriate, regulators should be ready to adjust their approaches to ensure that the implementation of Basel II does not lead to unjustified capital relief.
- Pillar 2 also authorizes supervisors to require all banks to hold more than the 8 percent recommended by Basel II to accommodate local banking characteristics. For instance, the Monetary Authority of Singapore has decided that every bank in Singapore will have to maintain a minimum Tier I ratio of 7 percent and a minimum total ratio of 10 percent at both the individual and group levels.

According to the third quantitative impact study carried out in 2002 by the Bank for International Settlements (BIS), capital requirements for credit risk in emerging economies should remain broadly unchanged under this approach (relative to Basel I).\textsuperscript{170} This study indicates that capital requirements are likely to decrease for retail and SME\textsuperscript{171} exposures, while increasing for bank, sovereign, and equity portfolios.

**Pillar 1**

**Standardized approaches**

- Ratings by external credit-assessment agencies (ECAIs) will play an important role in defining banks’ capital requirements. Supervisors will have to carry out thorough analyses to assess these ratings in light of Basel II eligibility criteria,\textsuperscript{172} to match their ratings with the different risk buckets of the Standardized Approach, and to regularly ensure the relevance of their initial assessments. Recognizing ECAIs will no doubt be one of the most complex issues that supervisors will face when implementing Basel II.
- Risk weights for public-sector entities: Basel II allows regulators to treat claims on certain domestic public-sector entities as claims on sovereigns. This discretion should only be exercised in limited circumstances and its rationale publicly disclosed. Special attention needs to be paid to potential conflicts of interest, especially where state-owned banks represent large portions of banking systems.
- Risk weights for unrated corporates: as contemplated in the Framework, supervisory authorities should assess whether the overall corporate default rates in their jurisdiction require an increase in the standard 100 percent risk weight for unrated corporates.

**IRB approach**

- Initiatives to pool data at the industry level or with external databases\textsuperscript{173} may help to alleviate some issues related to the availability of datasets required for the IRB approaches. However,
Even when data are available, they often do not comply with Basel II default and loss definitions. Breaks in historical time-series due to changes in ratings systems, credit policies, and parameter definitions are frequent. In complex banking groups, the multiplicity of source systems and inconsistencies in application across business units and/or geography create further problems.

The past volatility of the environment in many East Asian countries makes the qualification and validation of IRB parameters especially difficult:

- Defaults and losses in the five years following the financial crisis were massive in many countries in the region, and were far smaller in the five years prior to the crisis. Using long-run averages of historical loss data could help smooth some of these cyclical effects but few historical datasets are available.
- Even in the recent period, recovery rates and losses given default have been negatively affected by the level of non-performing loans in many of the banking systems in the region.

In order to demonstrate that they are able to assess, differentiate, and quantify their credit risk exposure in a consistent and credible manner, banks also have to show that they meet demanding standards concerning ratings systems and processes and risk management, as well as the oversight and governance of rating systems:

- A critical component of corporate governance is that banks meet the so-called “use test.” That is, the risk-rating parameters should serve as an integral part of the bank’s business activities (such as pricing or credit approval), daily operations, and strategic planning and not just as a regulatory compliance tool. The use test should help promote the broader dissemination of a risk-focused culture and decision-making process.
- The stress-testing requirements appear to be especially important for East Asian banks adopting the IRB approaches, both to assess the reliability of the input used (probability of default, and loss given default) and of the formulae used to calculate the capital requirements. Particular attention should be paid to concentration risk (as the supervisory formulae used to calculate capital requirements assume a good diversification of bank portfolios).
- The ongoing assessment of the reliability of the rating system will also have to take into account market volatility. During economically buoyant periods with low credit losses, banks might respond to their improving Basel II ratios by repurchasing shares, lowering their capital base, or strongly increasing their exposures. Since it is quite possible that realized default rates significantly diverge from banks’ estimates in those periods, banks will have to design systems enabling them to assess whether the cyclicity of the market is driving this divergence or whether the bank’s ratings are flawed. It will be particularly important for supervisors to understand the bank’s overall capital strategy and how carefully it assesses the possibility of a turn in the market, particularly through stress testing.

Concerning credit risk-mitigation techniques, IRB banks are permitted to recognize physical collateral. Banks using the Foundation Internal Ratings-based Approach (F-IRB) remain subject to constraints, while those using the Advanced IRB are not. F-IRB banks will be allowed to recognize residential and commercial real estate as well as other types of physical assets and receivables as eligible collateral. Real-estate collateral and receivables will only allow a certain reduction in loss given default (LGD) up to 35 percent (40 percent in the case of physical assets) and only in cases where there is at least a 140 percent over-collateralization. The fact that eligible real-estate collateral can only reduce the LGD to a minimum of 35 percent under F-IRB appears reasonably conservative by advanced industrialized countries’ standards, in some East Asian countries such as Korea, Indonesia, and Thailand, losses on secured lending have sometimes exceeded 35 percent, suggesting that the charges under Basel II may in some cases be insufficient to cover the risks in secured lending in these markets. In all cases, collateral should only be recognized when the legal basis for its enforcement is effective and liquid markets allow reliable valuations to be obtained.
Overview and Summary

2. 5.1 percent excluding China.
3. These included a network of currency swap arrangements (the ASEAN Swap Agreement), bilateral repurchase agreements, the Executives’ Meeting of East Asia and Pacific Central Banks (EMEAP), the Four and Six Markets Meetings, and the Asia-Pacific Economic Cooperation Finance Ministers’ Meeting for financial cooperation among finance ministers and central bank governors.
4. Their agreement also covers the establishment of a network of contact persons to facilitate regional surveillance, as well as a network of research and training institutions to build up the skills of officials in the financial, banking, and fiscal areas throughout the region.
5. Financial intermediaries and markets tend to perform the core functions of a financial system—resource mobilization, resource allocation, and risk management—in different ways and each may be better at certain aspects of these functions. Hence, they tend to be complementary (or imperfect substitutes). Indeed, financial intermediaries and markets are also complementary in that the former are key participants in financial markets and tend to play a supporting role in ensuring the full functioning of financial markets.
6. In addition to Hong Kong (China) and Singapore, Korea, and Malaysia have developed sizable corporate bond markets.
7. Throughout this report we try to benchmark East Asian economies within the region and with peers within the same income group in other regions. The latter comparison has some disadvantages, since in general the East Asian financial systems are more developed relative to those of countries with the same level of income in other regions. Nonetheless, we include in most tables data on comparator countries, where data are available. The comparator countries, based on 2004 GDP per capita figures (at 2000 prices in U.S. dollars), are divided into six groups: (1) Indonesia (Georgia and Ukraine); (2) China and the Philippines (Albania, Bolivia, and Serbia and Montenegro); (3) Thailand (Peru, Russian Federation, and Turkey); (4) Malaysia (Chile, Latvia, Lithuania, and Mexico); (5) Korea (Greece, Spain, and Slovenia); (6) Singapore and Hong Kong (China) (Japan, United States, and United Kingdom). We also systematically benchmark with regard to industrial countries (Germany, Japan, United Kingdom, and United States), which is arguably a more useful comparison if the region’s financial sectors are to position themselves well in the global arena.
8. Based on standard indicators of efficiency such as the ratio of operating costs to assets and the ratio of net interest costs to assets.
9. The Equity Market Efficiency Indicator is a composite measure that captures transaction costs and the quality of information disclosure. Transaction costs are measured by the proportion of zero-return days in a trading year. Since informed traders only trade when the benefits exceed the costs of doing so, a market with higher trading costs (both implicit and explicit) will exhibit more days without trading—hence producing a zero return. The quality of information disclosure is measured by an index of stock-market synchronicity, which captures the co-movement among individual stock returns. A high level of co-movement indicates that there is not much firm-specific information.
10. However, China is currently undertaking major reforms to increase investors’ access to shares. First, it has started to convert about US$210 billion of non-tradable “A” shares, essentially state-held equity, into common-stock tradable “A” shares that can be bought and sold on the exchanges. Companies seeking to convert non-tradable stock must obtain the approval of the holders of tradable shares and offer cash or shares to compensate them for the increase in supply. As of end-2005, 421 listed companies had completed their negotiations with shareholders (about 31 percent of the total listed companies, accounting for 35 percent of the total capitalization of China’s stock market). The companies that have completed the share reforms are now called “G” share companies. Second, new rules were announced in January 2006 to allow foreign investors to buy strategic stakes in tradable “A” shares. Overseas investors will be allowed to buy “A” shares using RMB, provided they acquire at least a 10 percent stake in a firm and hold the stock for at least three years. Thailand has also recently loosened restrictions on foreign investors.
11. These figures are based on the International Finance Corporation’s IFCI (Investible) return index, which includes a subset of the stocks included in the IFCG (Global) index.
12. The stability indicator is a composite indicator, based on measures of volatility and the skewness of returns—i.e. the extent to which markets are more likely to deliver large negative returns.
13. The reasoning is as follows: A corporation has more incentive to hide bad news than good. Thus good news is released to the public promptly, and stock market prices adjust immediately, which makes for more gradual price adjustments. In environments of poor disclosure, bad news can be covered up and accumulated by management. Of course, eventually, even bad news comes out. As a result, bad news is released all at once and has a much greater negative impact on stock prices. Further, the public will inevitably feel that the corporation is still hiding information and thus the reaction to the bad news is usually an
overshooting decline. That is, a firm may deliver large negative returns on some days, but small positive returns most of the time.

14. Assessments of compliance with the Basel Core Principles for Banking Supervision show the need, for example, to further strengthen compliance with the requirements for evaluating asset quality and the adequacy of loan-loss provisions and reserves; rules for identifying the limiting concentrations of exposures to single borrowers or to groups of borrowers; rules for lending to connected or related parties; and policies for identifying and managing country, market, and material risks. Among supervisors, compliance with the requirements for off-site supervision, with on-site examination, and with the conduct of consolidated supervision is still somewhat weak. It is important that these remaining weaknesses be addressed, because they are likely to become more important as banks move into new segments of lending and as the extent of cross-border participation of financial institutions increases.

15. Derivative instruments are financial contracts whose value depends on, or derives from, underlying assets (such as securities or commodities) or indexes. Derivatives can be traded on organized exchanges or in unregulated over-the-counter markets.

16. In general, this is an area that needs to develop further in the region; at present the base of intermediaries that can develop and market financial products that suit different client funding preferences on the one hand, and investors with varying risk profiles on the other, is limited in many of the countries.

17. Restrictions on pension investments exist to varying degrees across the region, except in Hong Kong (China), which essentially follows the "prudent person" rule typical of Anglo-Saxon countries, with ex post controls on strategic allocations contained in scheme bylaws.

18. The Philippines actually has a blend, since the Social Security System is a defined-benefit plan while the Government Service Insurance System is a defined-contribution plan.

19. Just over 60 percent of Hong Kong (China)’s total assets ($US355 billion) and 70 percent of Singapore’s total assets ($US355 billion) derive from abroad, whereas generally, most of the money invested in most countries’ mutual fund sectors derives from the domestic market. (Sources: Fund Management Activities 2004, Hong Kong Securities and Futures Commission, and 2004 Singapore Asset Management Industry Survey, Monetary Authority of Singapore.) Recently, Korea has also announced its long-term vision to become a regional financial hub with special expertise in asset management.

20. Of course, assets under management in investment funds may increase as a result of more sales of fund shares or units, or simply as a result in the increase in the value of the assets held by the funds, or as is most commonly the case, a combination of the two. So the increases discussed are not necessarily the result of more sales of fund shares or units.

21. Securitization sometimes involves the creation of derivative products, such as mortgage-backed securities (which are option derivatives), but it can also involve straightforward schemes of asset-backed securities.

22. There is, as yet, no market in East Asia for covered transactions of the kind that has spread prolifically since the early 1990s from Denmark and Germany. Covered transactions resemble securitized deals, except in particular for a lack of severance of ownership from the asset originator (Arner and others 2006).

23. There are moreover a number of inconsistencies even among the ratings of the international agencies. In particular, a study by the Bank for International Settlements has shown a number of inconsistencies in the relationship between foreign- and local-currency ratings used by a single international rating agency as well as sizable disagreements among the international rating agencies on the relationship between local-currency and foreign-currency ratings. (Packer 2003.)

24. In many countries, for instance, insurance companies are allowed to offer short-term deposit-like products, while some new types of securities products, such as credit derivatives, in practice bear many of the characteristics of an insurance product.

Chapter 1

25. Investors need considerable expertise to participate in financial markets, which makes their participation costly in terms of time and money. Financial intermediaries can often help reduce these costs. In helping investors to participate in markets, financial intermediaries contribute to the development of markets. Empirically, it has been found that countries with well-developed stock markets also have well-developed banks and non-bank financial intermediaries—suggesting that these are complements in providing financial services (Demirgüç-Kunt and Levine 2001).

26. The U.S. housing market provides an example. In the 1960s and 1970s, the housing market depended heavily on the health of the savings and loan industry, which, at the time, was the predominant source of funds for housing. In particular, when Regulation Q ceilings curtailed the flow of funds into savings and loan institutions, there was an immediate impact on housing. In the early 1990s, however, when the US economy was recovering from the 1990-1 recession, the housing market bounced back strongly even though a large part of the savings and loan industry was being closed down. By this time, both commercial banks and the secondary mortgage market had become important sources of housing funds and were able to continue lending despite the problems in the savings and loan industry. (Source: speech by Thomas Hoenig, President, Federal Reserve Bank of Kansas City.)

27. Throughout this study we try to benchmark East Asian economies within the region and with peers within the same income group in other regions. The latter comparison has some disadvantages, since in general the East Asian financial systems are more developed than those of countries with the same level of income in other regions. Nevertheless, we include in most tables data on comparator countries, where available. The comparator countries, based on 2004 GDP per capita figures (at 2000 prices in U.S. dollars) are divided into six groups: (1) Indonesia (Georgia and Ukraine); (2) China and the Philippines (Albania, Bolivia, and Serbia and Montenegro); (3) Thailand (Peru, Russian Federation, and Turkey); (4) Malaysia (Chile, Latvia, Lithuania, and Mexico); (5) Korea (Greece, Spain, and Slovenia); (6) Singapore and Hong Kong (China) (Japan, United States, and United Kingdom). We also systematically benchmark relative to industrial countries (Germany, Japan, United Kingdom, and United States), which is arguably a more useful comparison if East Asia’s financial sectors are to position themselves well in the global arena.
Chapter 2

29. EMEAP is the region’s central bankers’ association. It covers Australia, China, Hong Kong (China), Japan, Korea, Malaysia, New Zealand, the Philippines, Thailand, and Singapore.
30. In Hong Kong (China) and Singapore, documentation is not required.
31. One of the working groups under ASEAN+3 studied the pros and cons of establishing a link among the clearance and settlement systems of member countries. But market participants expressed the view that (1) the private sector would not be interested in developing a regional facility for bonds, since there was insufficient volume to make it financially viable at that point, and the timing was not right for the public sector to make a significant commitment for such a facility; (2) market participants were not interested in developing a secure network that could be used by central securities depositories to communicate with each other and for other purposes in the region; (3) current settlement arrangements were not a significant impediment to the development of a regional bond market, although there were areas that could still be improved.
32. There are moreover a number of inconsistencies even among the ratings of the international agencies. In particular, a BIS study has shown a number of inconsistencies in the relationship between the foreign- and local-currency ratings used by a single international rating agency, as well as sizable disagreements among the international rating agencies on the relationship between local-currency and foreign-currency ratings. Packer 2003.

Chapter 3

33. A market is characterized by adverse selection when buyers (or providers of funds) cannot observe directly the quality of the good (project), while the sellers (borrowers of funds) know the quality. Sellers may offer for sale only those goods that they value at less than the market price.
34. Moral hazard is created when the behavior (or actions) of a party to a contract cannot be observed by other parties. In the context of financial contracting and insurance, such behavior could lead to inefficient outcomes. Take, for example, a lending contract: if the lender cannot verify the use of funds, the borrower might be inclined to take actions that reduce the probability of repayment. In an insurance contract, the party that is insured might be inclined to put less effort into reducing the probability of a loss.
35. The specific legal and regulatory elements that are critical to the development, safety, and soundness of particular financial-market segments are discussed in subsequent chapters in the context of the relevant international standards and codes, because the latter include key elements that need to be incorporated into financial sector legislation.
36. Although there is no regulation stating this in Indonesia’s Company Law, most companies apply a 50 percent major-
Thailand, immediately after the crisis, loans that were restructured were re-classified as substandard once a debt-restructuring agreement was signed, and if three consecutive payments were made they were upgraded to the pass (accrual) category. In the United States, by contrast, the time required is six months.

51. For example, in Thailand, up to 70 percent of land and 50 percent of building revaluation can be included in Tier 2 capital, but no such provisions exist in Indonesia or Korea.

52. Korea's rapid expansion of credit-card financing during 2001-02 resulted in large delinquencies for banks, but more especially for credit companies.

53. There is extensive documentation on how improper real estate financing systems can cause or amplify a broader financial crisis (including as a result of lenders' myopia, collateral-based and loose underwriting standards, inaccurate appraisal methodology, inaccurate information on real estate markets and prices, and a lack of monitoring of key variables such as building vacancies and land prices).

54. The growing demand has also been accompanied by a rapid increase in housing asset prices relative to household income in the largest urban centers in China, although the trend is less visible and less of a concern at the national level. In other countries, in most of the largest cities, housing prices have not exceeded their 1997 pre-crisis levels, although they have been rallying steadily and at a particularly rapid pace since 2002.

55. Since the crisis, there has been a rise of private mortgage markets over specialized public lenders as seen in Korea and Indonesia. The housing banks in the region (mostly Thailand and Indonesia) now operate as commercial banks and are supervised as such. They cater to both the unsubsidized middle income household markets (competing with private banks) but also often lend to lower income households (and distribute the explicit subsidies from the Government for that purpose).

56. The shift in the importance of private banks in the mortgage markets is quite dramatic; for example in Korea in 1998, 85 percent of the housing loans were still made by the public National Housing Fund and the Housing Commercial Bank, while private banks were hardly active in the sector. By March 2005, housing loans to households (mortgage and home equity loans) had become the fastest growing area of lending (showing a growth of 23 percent per year between 1996-2003), and banks now dominate this market; as noted in Box 4.1, over 60 percent of banks' retail loans are housing loans.

57. Although some caution should be exercised with respect to China, since the recent portfolio has not been tested in any recession yet and property registration and foreclosure rights raise concerns, as do banks' underwriting policies and internal risk management capacities.


59. Mortgage default insurance mitigates the "lemon" problem as potential good borrowers are no longer penalized by lenders' inability to differentiate between good and bad risks. In economics a lemon is a good whose quality is indistinguishable to the buyer beforehand, and which has major flaws which render it unusable for its intended purpose. It comes from George Akerlof's paper "The Market for Lemons: Quality Uncertainty and the Market Mechanism" 1970, Quarterly Journal of Economics 84 (3): 488-500.

60. Most of the portfolio is indexed on prime lending rates or official inter-bank lending indices. The rates have been higher in Indonesia, averaging around 15-17 percent per year) due to the relative macro volatility. This prevents any fast expansion at least through conventional mortgage markets—although CPI indexed loans could significantly increase the affordability of these loans.

61. Prepayment rates in the region are relatively high (for example, around 10 percent in Hong Kong and Korea and 15 percent in Indonesia)—in part because of competition among lenders, and in part due to households' cultural bias against mortgage debt.

62. This situation exposes borrowers to significant credit risks should rates rise in the renewal phase. Risks have been kept low so far through strict equity regulatory rules, albeit to the detriment of the affordability of the housing finance system. With the creation of the public secondary mortgage agency in 2004, fixed-rate long-term mortgage loans—to be funded by long-term MBS—are being promoted.

63. Some Thai lenders do provide partial limits on the future increase in repayments through various caps and extended terms.

64. The matching principle requires that the sums deriving from the issue of mortgage bonds be invested in assets that are capable to at least cover the claims attached to the bonds.

65. In countries where household and/or firm surveys are available, the authors compare the predicted values with survey results. The findings confirm that the aggregate loan and deposit data can be used to predict the micro information with fairly good results. In Indonesia, further corroborations are obtained from the results of the World Bank/Asian Development Bank Investment Climate Assessment, which covered medium and large firms; 49 percent of the firms surveyed stated that they had a bank loan, so a predicted value of 39 percent for small firms seems reasonable.

66. Countries in the region vary in the extent to which they allow banks to undertake other activities such as underwriting, brokering, and dealing in securities markets and aspects of mutual funds, and underwriting and selling insurance. Banks may be (1) unrestricted (all activities can be carried out directly in the bank); (2) permitted (all activities can be carried out but some must be undertaken through subsidiaries); (3) restricted (not all activities can be carried out in the bank or subsidiary); and (4) prohibited (none of the activities can be carried out in a bank or subsidiary). China has the most restrictive policies: banks are not permitted to engage in any way in the provision of securities markets services or insurance services. However, China's new securities law passed in October 2005 leaves room for integrated financial services. Indonesia and Korea allow banks to engage in the full range of activities in both these areas but some of these activities need to be conducted through subsidiaries. Malaysia allows banks to engage in the full range of activities in securities (through subsidiaries) but less than the full range of activities in insurance. The Philippines allows banks to engage in the full range of securities services directly, but to provide insurance services only through subsidiaries. Thailand is more restrictive, allowing banks to undertake only a subset of activities in securities and insurance (both through subsidiaries). Finally, Hong Kong (China) and Singapore allow banks to undertake directly a full range of securities.
activities and to provide a full range of insurance activities through subsidiaries.

67. Several studies have found that the cost curve is relatively flat (e.g., Clark 1996; Berger and Humphrey 1991). Other studies have found evidence of economies of scale, but have also found that these are reached at a relatively small size. For instance, Berger, Demsetz, and Strahan (1999) find that the scale-efficient size in the US is reached at $100 million of assets and that the cost curve remains relatively flat after that. However, as noted by Vives (2001), a problem that arises frequently with studies of scale economies and cost efficiency is that they typically do not account for risk. Instead they measure the effect on cost of a joint increase in scale and risk. Noting that the lower cost of risk management in a larger, better-diversified bank may induce that bank to take on more risk, cost savings then may not be detected if taking on more risk is costly.

68. It is impossible to assess the quality of the services provided.

69. At the same time, there can be a tradeoff between these gains from competition and the stability of the banking sector. In particular, it is important that the degree of competition does not excessively erode the franchise value of banks and hence induce banks to take excessive risks to make up for declining profitability. In general, therefore, the appropriate degree of competition is likely to be lower in the banking sector than in other sectors of the economy—and in practice most banking systems exhibit monopolistic competition.

70. In China, restrictions have been loosened since 2002, when the minimum capital requirement for joint-venture banks was reduced to US$10 billion. The revised regulations limit the shareholding of a single foreign investor to 20 percent and the combined shareholding of foreign partners to 25 percent of the total equity of banks. To apply for a banking license to open branches to conduct foreign-currency banking business, a foreign bank needs to have a minimum of US$20 billion in assets. To apply for a banking license to conduct business in local currency, the foreign bank’s office needs to have an operating record of not less than three years and two consecutive profitable years. In response to regulations on capital adequacy and risk management, issued by the China Banking and Regulatory Commission in 2004, the second-tier banks have intensified their efforts to replenish capital. The increased appetite for foreign and private capital has provided a new window of opportunity for foreign banks to take equity positions in banks. Thus far, 15 second-tier Chinese banks have received foreign investment.

71. Smaller banks serving local markets tend to develop closer relationships with their customers than larger banks that produce more standardized products. As discussed above, however, lending decisions still need to be based on a systematic evaluation of the credit risks posed by borrowers.

72. These gaps in meeting international standards reflect, among other things, the priority that countries are giving to developing financial sector infrastructure; weak supervision; deficiencies in customer-due-diligence practices, due to lack of resources and skills; inadequate oversight of non-bank money-transfer operators; difficulties in designing and implementing balanced regulations that address AML-CFT concerns while promoting access to finance; and underdeveloped tools for financial institutions to identify specific risks (including potentially exposed persons, activities related to terrorist financing; and inadequate transparency of the final beneficiary, especially in trade financing, affecting corresponding banking relationships).

73. The Basel II Capital Adequacy Framework is designed to both address weaknesses of the 1988 Basel Capital Accord (Basel I) and to help disseminate best practice in risk management within an integrated framework for banks, supervisors, and other stakeholders. For details of Basel II see Appendix 3.

74. There is no set timeframe for the implementation of Basel II by countries whose authorities are not members of the Basel Committee. The assessment of compliance with the Basel Core Principles for Effective Banking Supervision (BCP) by international bodies will be based on applicable capital-adequacy standards, whether these be Basel I or Basel II.

75. The Basel II framework is applicable on a consolidated basis and at every tier of banking groups. Its scope of application includes financial subsidiaries, even unregulated ones, with the exception of insurance companies.

76. For instance, the Hong Kong Monetary Authority has the authority to impose individual capital ratios of up to 16 percent (compared to a 12 percent current upper limit).

Chapter 5

77. At end-1995, stock market capitalization had reached US$213 billion in Malaysia and US$140 billion in Thailand.

78. By comparison, capital raised in the United States amounted to US$54 billion on the New York Stock Exchange and US$12 billion on the NASDAQ.

79. A major advantage of the Herfindhal index over standard concentration measures is that it gives more weight to larger firms. Take, for example, two cases in which the six largest firms account for 90 percent of the market capitalization and ten firms equally account for the remaining 10 percent of market capitalization. In the first case, assume that the six firms account for 15 percent of the market capitalization equally, and in the second case assume that one firm accounts for 80 percent of the market capitalization and the remaining five firms account for 2 percent each. In the former the Herfindhal index will be lower, at 0.1350; in the second, where one firm clearly dominates, the Herfindhal index will be much higher, at 0.6420. Standard six-firm concentration ratios would yield 90 percent for both cases, regardless of the fact that in the first case, six firms are of roughly equal size and hence the market could be said to be less concentrated than in the second case, where one firm clearly dominates.

80. However, China is currently undertaking major reforms to increase investors’ access to shares. First, it has started to convert about US$210 billion of non-tradable “A” shares, essentially state-held equity, into common stock tradable “A” shares that can be bought and sold on the exchanges. Companies seeking to convert non-tradable stock must obtain the approval of the holders of tradable shares and offer cash or shares to compensate them for the increase in supply. As of end-2005, 421 listed companies had completed their negotiations with shareholders (about 31 percent of total listed companies accounting for 35 percent of the total capitalization of China’s stock market). The companies that have completed the share reforms are now called “G” share companies. Second, new rules were announced to allow foreign investors to buy strategic
stake in tradable "A" shares (announced in January 2006). Overseas investors will be allowed to buy "A" shares using RMB, provided they acquire at least a 10 percent stake in a firm and hold the stock for at least three years. Thailand has also recently loosened restrictions on foreign investors.

81. These figures are based on the International Finance Corporation's Investible Return Index (IFCI), which includes a subset of the stocks included in IFC's Global index (IFCG), now managed by Standard and Poor's. Stocks in the IFCI are selected using a two-step process: first, S&P determines which securities may be legally held by foreigners, and next, S&P screens stocks according to size and liquidity. Thus, the IFCI is designed to measure the composite stock-market return index of what foreign investors might receive from investing in emerging-market securities that are legally and practically available to them (IFC 1999). Note that the degree of investor accessibility may not be a good proxy for the degree of actual foreign ownership: a stock that is designated as investible may or may not be owned by foreign investors.

82. The index is designed to track the performance of liquid local-currency bonds.

83. Broadly, liquidity is a measure of how easy it is to trade securities. Liquidity has several dimensions—tightness, depth, immediacy, and resilience (Committee on the Global Financial System 1999). Tightness refers to the general costs incurred by market participants in executing transactions and is proxied by the difference between buy and sell prices, such as bid-ask spreads in a quote-driven market (as in the majority of East Asian countries). Depth refers to the size of transactions that can be executed without moving prices and is proxied by quote sizes, volatility, trading volumes, and turnover ratios. Resilience refers to the ease with which prices return to normal after disturbances or temporary imbalances in orders. There can be trade-offs between these dimensions. For instance, competition between market makers or regulation can narrow the bid-ask spread at the cost of less depth, as reduced profitability leads to less capital devoted to market making. Jiang and McCauley 2004.

84. The proportion of zero-return days in a trading year is a basic measure of trading costs. Since informed traders only trade when the benefits exceed the costs of doing so, a market with higher trading costs (both implicit and explicit) will exhibit more days without trading—hence a zero return. For further details see Lesmond and others 1999.

85. This measure is part of a set being developed by the Financial Sector Department of the World Bank. The composite indicators are comprised of sub-indicators, which are standardized by subtracting the median of the distribution and scaled by the standard deviation of the distribution. These standardized scores are then averaged to create the composite indicator.

86. In situations where the rights of minority shareholders are weak, the controlling owners or entrenched managers are usually not pressured to share their private information with outsiders. High synchronicity can therefore be the outcome of firms not reporting timely and reliable information about their real performance. Under such circumstances, outside small investors usually trade on the basis of rumors and sentiment and the stock prices of individual firms are predominantly influenced by the general market sentiment.

87. There is evidence that such skewness is associated with limited information disclosure. The reasoning is as follows: A corporation has more incentive to hide bad news than good. Thus good news is released to the public promptly, and stock market prices adjust immediately, which makes for more gradual price adjustments. In environments of poor disclosure, bad news can be covered up and accumulated by management. Of course, eventually, even bad news comes out. As a result bad news is released all at once and creates a much greater negative impact on stock prices. Furthermore the public will inevitably feel that the corporation is still hiding information and thus the reaction to the bad news is usually an overshooting decline. That is, a firm may deliver large negative returns on some days, but small positive returns most of the time. Jin and Myers 2005.

88. Of course, liquidity in bond markets is limited even in the advanced industrial countries. Even in the United States, a much larger market, liquidity is concentrated in government bonds and the “benchmark” corporate bonds. Most of the other bonds are only traded actively in the first few weeks after issuance as part of the allocation process. After this, liquidity is typically low. Gyntelberg and others 2005.

89. Liquid government bond markets are also important for the development of other financial segments, such as forwards and futures to support risk-management functions.

90. See World Bank and International Monetary Fund 2001, from which this discussion draws.

91. An on-the-run issue is the most recently issued bond for a certain term to maturity. Once a bond ceases to be on-the-run, it becomes a seasoned issue or an off-the-run issue.

92. Policymakers need to pay attention to the proper timing of re-openings and buy-back operations. An on-the-run issue may not always be the most liquid of the benchmarks. Even if the lifecycle of the government security is long enough to maintain its on-the-run status, if the time between issues is too long the security may reach a point where its maturity no longer corresponds to the needs of the investment community. Understanding the limits of continuing on-the-run issues helps the government to decide the timing of re-openings and buybacks. World Bank and IMF 2001.

93. Since 2004, the China Securities Regulatory Commission has introduced on a pilot basis a monitoring system that is available to members.

94. Key agencies are: China—Zhong Cheng Xin Credit Rating, Da Gong Global Credit Rating, and Shanghai Far East Credit Rating Company; Indonesia—PERINDO and PT Kasnic; Korea—Korea Investor Service (KIS), Korea Ratings Corporation (KR), and National Information and Credit Evaluation (NICE); Malaysia—Rating Agency Malaysia (RAM) and Malaysian Rating Corporation Berhad (MARC); Philippines—Philippines Rating Services Corporation; and Thailand—Thai Rating Service (TRIS).

95. RAM in Malaysia has one of the longest track records.

96. The relationship between liquidity and transparency in the secondary market is complex. On the one hand, if the market is too opaque and they cannot accurately see the current market value of securities, investors may exit the market because it would be too difficult to accurately value their portfolios. On the other hand, if the market is too transparent, and the information on order flows is immediately disseminated, some large investors may be deterred from participating in the market for fear of revealing pri-
vate information. Therefore it may be desirable to protect the anonymity of market participants when disclosing transaction information.

98. Korea has also recently established bond-pricing companies to help address valuation issues and allow mark-to-market practices for bond-holding institutions.
99. Margin purchase takes place when an investor can borrow money from a broker to purchase a stock. Short selling takes place when a seller can sell a stock that he/she does not own or when any sale is completed by the delivery of a security borrowed by the seller.
100. In a margin purchase, losses are limited to the purchase price \( \times \) the margin ratio, whereas gains are unlimited, at an unlimited sale price \( \times \) the margin ratio minus the purchase price. In a short sale, losses are unlimited, at an unlimited purchase price \( \times \) the margin ratio minus the sale price, while the gains are limited to the sale price \( \times \) the margin ratio. This section draws on Endo and Rhee 2005.
101. See Endo and Rhee 2005, from which this discussion draws.
102. The margin requirement is the minimum deposit required of an investor and is usually expressed as a percentage of the total of the market value of securities, cash (if any), and the debit balance (credit extended) in a margin account.
103. Lending and borrowing of unspecified stocks is known as equity repo.
104. As discussed in Chapter 2, a key contribution of the Asian Bond Fund 2 initiative is in identifying and addressing some of these impediments.
105. The issue of minority shareholder rights is likely to be particularly important in Indonesia and the Philippines where the percentage of closely held shares among the listed companies amounts to 30 and 40 percent respectively. The percentages of closely held shares in the other countries are: 28 percent in China, 28 percent in Hong Kong (China), 10 percent in Korea, 17 percent in Malaysia, 25 percent in Singapore, and 21 percent in Thailand. This is significantly higher than the U.S. rate at 1.5 percent, Canada, 2 percent, and the U.K. rate 3.3 percent.
106. One of the arguments put forward in the academic literature is that securities laws are needed because contract and tort law alone are insufficient to reduce moral hazard and to prevent promoters (issuers and intermediaries) from cheating investors, because the payoff from cheating is too high and because private tort and contract litigation is too expensive and unpredictable to serve as a deterrent. This hypothesis has also been empirically tested. For example, La Porta and others (2006) have studied the effects of whether the law mandates the disclosure in prospectuses of particular information such as profitability and ownership structure; and whether the law specifies the liability standards that face issuers and intermediaries when investors seek to recover damages from companies that follow affirmative disclosure but fail to reveal potentially material information. Based on an analysis of 49 countries across the world, they find evidence that securities law covering these aspects matters for the development of securities markets. The indexes reported in Table 5.11 are a composite measure of disclosure and liability standards from La Porta and others (2006). A study by Djankov and others (2005) has taken the same approach to test which aspects of anti-self-dealing regulations matter most for the development of securities markets. It too finds that those characteristics in the law that promote private monitoring and enforcement matter more than those of a public nature.
107. See Grose and Friedman (2006) for a full discussion, from which this section draws.
108. Japan has JASDAQ and the Mothers’ Market—the second section of the Tokyo Stock Exchange.
109. It is important to distinguish disclosure requirements for making an initial public offering and for subsequent share issues, as well as the ongoing financial and significant-event disclosures that are mandated by law, regulation, or the operating rules of the exchange.
110. The development of the stock exchange promotes venture capital development. This is one reason why venture capital and stock market development tend to be positively correlated. Another is that the infrastructure and the investment culture created with the development of an exchange are also important for venture capital.
111. Thailand reached a different view on the benefits of demutualization. A steering committee set up by the Ministry of Finance recently recommended against demutualization on the basis that the government would more easily be able to implement capital market reforms, including improved governance requirements for the exchange, if the exchange continued to be operated as a national body rather than being controlled by private-sector interests. However, the governance structure was changed by including the appointment/election of non-members to its board of directors.
113. As in the case of the Basel Core Principles for Banking Supervision, there are certain preconditions for effective securities regulation. Thus the IOSCO principles recognize that securities law and regulation cannot exist in isolation from the other laws and accounting requirements of a jurisdiction. In particular, there must be an appropriate and effective legal, tax, and accounting framework.
114. The Financial Sector Assessment Program (FSAP) is a joint IMF-World Bank effort designed to increase the effectiveness of efforts to promote the soundness of financial systems in member countries. It is supported by a range of experts from national agencies and standard-setting bodies and seeks to identify the strengths and vulnerabilities of the financial system, determine how key sources of risks are being managed, and ascertain the sector’s developmental and technical assistance needs.
115. For example, China requires corporate bonds to have bank guarantees. Once guaranteed by a bank, the product is no longer a standard corporate debt but becomes akin to a high-yield deposit at a commercial bank. Investors are less likely to undertake appropriate credit analysis in such a situation.
116. Measured in terms of GDP. In absolute size, Korea and China have larger securities markets than Singapore.
117. Bond markets in China, Korea, and Malaysia are larger in absolute terms; the latter are also larger as a percentage of GDP.
118. As a percentage of GDP they are comparable to those of the United Kingdom and Germany although they are still much smaller than that of the United States.
119. China’s equity market, despite the decline since 2001, is still the largest in absolute terms.

Chapter 6

120. The original objective of the CPF was to provide for old age but, over time, retirement savings in the CPF have been used for other needs. The first step in the move to funding other needs came in 1968 when the Public Housing Scheme enabled members to pay for subsidized public housing built by the Housing Development Board. At present there are more than 15 savings schemes including for insurance, home ownership, and other purposes.

121. Readily available information on actual asset allocation by pension schemes is often limited to the main scheme only. Moreover, the information is sometimes only available at a very aggregated level, which does not allow for a detailed analysis of the types of instruments in which funds invest.

122. While an argument can be made for pension funds to have more diversified portfolios, equities should not necessarily form as large a share as they do in Canada or Ireland (around 60 percent). The optimal portfolio composition should be determined by the term structure of the liabilities. The benefit of having stocks in the portfolio is also linked to whether mean reversion exists in equities—an issue that is being hotly debated in the academic literature.

123. Obviously, a decision to increase contribution rates would have to be primarily justified from the perspective of ensuring the sustainability of the pension funds themselves, the benefits for capital market development being a secondary consideration.

124. The statistics also show a marked difference between the number of members and active contributors (only 77 percent of members are active contributors). This is not due to evasion but to the fact that any individual who has ever contributed to the system, including retired individuals, is counted as a member.

125. By contrast, taxed-taxed-exempt (TTE) and exempt-taxed-taxed (ETT) are comprehensive income-tax regimes that tax income equally regardless of source, and treat equally the different uses that income may be put to (whether consumption or saving).

126. Although payments out of some voluntary contributions would be taxable if they were to exceed a prescribed vesting scale.

127. In the OECD countries, the tax treatment of pension savings mainly follows the EET rule: private pension savings are deductible from the income-tax base and the accrued return on investment is exempt from taxation, but pension benefits arising from these savings are taxed.

128. How much of a pensioner’s lifetime earnings should be replaced by a pension system generally depends on a number of factors such as access to housing, health, and other basic services, and the average propensity to save, as well as a country’s per capita income and overall level of development. An initial target for net-of-tax income replacement from mandatory systems is likely to be around 40 percent of real earnings to maintain subsistence levels of income in retirement. While higher replacement rates might seem desirable, they come at a cost. The direct cost is through higher contribution rates that might compete with other more pressing needs, and the indirect cost is the incentives that high contribution rates may create for evasion.

129. In Hong Kong (China), for MPF schemes, the “prudent person” rule typical of Anglo-Saxon countries is essentially followed, but it is qualified by a number of legislative rules set out in Schedule 1 to the MPF about permissible investments (although no quantitative limits are set). ORSO schemes are subject to fewer restrictions.

130. The Philippines actually has a blend, since the Social Security System is a defined-benefit plan while the Government Services Insurance Scheme is a defined-contribution plan.

131. These reforms aim at: (1) reducing the accounting differences between employer pensions as reported in company accounts and as reported in national accounts; and (2) improving the consistency of national-accounting rules for all pensions in all sectors. Moreover, accumulated public pension rights represent claims on government revenues and/or assets and eventually on future GDP.

132. It is unclear whether mandatory defined-contribution schemes with no explicit guarantees have, de facto, some implicit guarantees. Probably it is fair to say that in any country with a mandatory pension scheme, the policy objective is to maintain adequate replacement rates that are not jeopardized by high volatility of returns or by low performance. Therefore there is implicitly some liability obligation to be met.

133. A laddered bond portfolio is a portfolio of bonds with staggered maturities so that a portion of the portfolio matures every year. It is a way of transforming a stock of assets into a stream of income to follow a similar liability pattern.

134. A credit-default swap requires the seller of the protection (e.g., an insurance company or pension fund) to pay the purchaser of the swap if the underlying corporate bonds go into default.

135. Two main approaches to the regulation of capital and solvency are in common use around the world and in the region. The first approach, modeled largely on the existing European Union “index-based” regime, is applied in China, Hong Kong (China), Korea, Malaysia, and Thailand. The second, modeled largely on the U.S. “risk-based capital” approach, has been applied in Indonesia. Singapore also has a risk-based approach that strikes a balance between the two approaches (see Appendix Table 6.1 for a summary of capital regulations).

136. The asset-management industry is defined as the management of pooled capital on behalf of investors with the objective of providing investors with a rate of return over a certain term in accordance with a pre-set strategy. It includes the activities of professional fund managers managing various funds such as mutual funds, investment trust funds, money-market funds, and real-estate investment trusts.

137. Of course, assets under management in investment funds may increase as a result of more sales of fund shares or units, or simply as a result in the increase in the value of the assets held by the funds, or, as is most commonly the case, a combination of the two. Hence the increases discussed are not necessarily the result of more sales of fund shares or units.

138. Hong Kong (China) and Singapore have set out to become major regional centers for asset management, including investment funds. Just over 60 percent of the Hong Kong (China) total (US$300 billion) and 70 percent of the Singapore total (US$355 billion) derives from abroad.
By comparison, U.S. Treasury bonds amount to US$4 trillion. This is sometimes known as a supervisory custodian or a depositary, as in the European Economic Commission's Undertakings for Collective Investment in Transferable Securities (UCITS) Directive, 85/611/EEC, as amended. This is actually an area where problems have been encountered worldwide. A recent example can be seen in Germany where open-ended real-estate funds were able to hold properties on their books at inflated values, causing problems when these assets could not be sold at anything like that value to meet redemptions.

This concern may arise anywhere; following the late trading and market-timing scandal alluded to above, some observers accused the U.S. Securities and Exchange Commission of having been in the thrall of the powerful Investment Company Institute.

Chapter 7

A system introduced by the European Community as part of the European Monetary System to reduce exchange rate variability and achieve monetary stability, as a precursor to the Economic and Monetary Union.

This is not to suggest that OTC markets should not be developed before ETD markets—clearly many countries have done this and much depends on country-specific conditions. However, as a general principle, ETD markets are easier to monitor and regulate and it is important therefore that a level playing field is created so as to ensure that the development of ETD markets is not hampered.

In August 2004, Bank Negara Malaysia announced revisions in the regulatory treatment of all debt securities issued by Cagamas. Most of the special treatment accorded to Cagamas was removed to accelerate the development of the ABS market and create a level playing field for all market participants.

There is, as yet, no market in East Asia for covered transactions of the kind that has spread prolifically since the early 1990s from Denmark and Germany. Covered transactions resemble securitized deals, except for a lack of sev erance of ownership from the asset originator.

In China, major bank sector securitization legislation is expected in 2006-07; trial deals are permitted by banking and securities regulators in 2005-06. Prior to the measures that have been recently introduced, the main barriers were the lack of an issuing vehicle under Chinese law, marketability of trust certificates, and bankruptcy remoteness. The new measures provide the legal framework for executing securitization transactions: the trustee as the issuing vehicle, issuance of asset-backed securities (and not trust securities) with limited recourse to trust assets, and perfection requirements. But the originators can only be financial institutions regulated by the China Banking Regulatory Commission, and no derivatives and hedging are available for securitization transactions. Also, registration does not provide for the registration of real estate, and the tax issues have not yet been addressed.

Indonesia enacted securitization decrees pre-1997, and securities regulator guidelines in 2002-03.

Legislation changes in Korea include the 1998 Asset-backed Securities Law, the 1999 Mortgage-backed Securities Law, and the 2003 Korea Housing Finance Corporation law. Korea's Asset-backed Securities (ABS) Act did not address taxation issues: withholding tax, stamp duty, and income tax. The result of the Secured Bond Trust Act is unsecured securities for the domestic market and a double special-purpose vehicle (SPV) structure for the international market. If a securitization transaction involves short-term assets, each sale of assets during the revolving period must be registered with the Financial Supervisory Service. The ABS Act only allows registration of one securitization per SPV, with no use of a master-trust structure, which therefore raises transactions costs for repeated users.


A securitization is defined as a structure where at least two different stratified risk positions, reflecting different degrees of credit risk, exist, and where the risk of these positions depends on the performance of an underlying pool of exposures (see paragraphs 539 and 540 of Basel Committee on Banking Supervision 2005).

Capital requirements represent 8 percent of the risk-weighted assets, so that, for example, a 20 percent risk-weighted asset will attract a capital requirement of 1.6 percent of the exposure.

Gyntelberg and others (2005) mention that “local credit rating agencies do exist in Asia, and often ratings are mandatory for bond issues. Many such rating agencies, however, are quite new and need more time to develop a historical record on which to build a reputation. While a handful of foreign agencies are active in Asian markets, they often do not provide ratings across the full array of bond issuers in individual countries.”


Chapter 8

In Korea, real estate activities are permitted up to 60 percent of a bank's capital.

This analysis was done for firms as of end-2003.

Common problems resulting from not complying with BCP 20 are: lack of an adequate framework for cooperation, policy coordination, and information sharing among banks, securities, and insurance supervisors; lack of rules for
consolidated accounting and consolidated financial statements; lack of minimum capital requirements and other prudential norms for financial conglomerates (e.g., limits to intra-group and large group exposures); gaps and overlaps in prudential regulation; opaque ownership structure in conglomerates; and weak capacity of supervisors to monitor risks in all entities belonging to a financial group, especially in mixed conglomerates (commercial and financial).

157. A unified supervisory system seems to be better prepared to mitigate regulatory arbitrage, because it is better prepared to develop and apply regulations and the supervisory process consistently. In addition, the information available to the integrated supervisor can be more quickly and effectively utilized.

158. By becoming the only contact point for entities for all regulatory and supervisory issues, a single regulator becomes responsible for preventing gaps in regulation and supervision.

159. Reportedly, the agencies that have completed the transition phase from multiple to a single supervisor, such as the Financial Supervisory Agency in the United Kingdom, have become much more attractive employers than the former regulators, so recruitment has been easier. Briault 2001.

Appendix 2

160. The International Financial Reporting Standards (IFRSs) subsume and update the International Accounting Standards (IASs), which were issued by the International Accounting Standards Committee, the predecessor to IASB. The IFRSs consist of IFRSs, IASs and Interpretations of the Standards. Where the IASB amends rather than replaces an IAS, the IAS number remains. Interpretations of the IFRSs are issued by the International Financial Reporting Interpretations Committee (IFRIC). Interpretations issued by IFRIC’s predecessor, the Standards Interpretations Committee (SIC), are termed SICs.

Appendix 3

161. Both Basel I and Basel II require banks to hold capital equal to at least 8 percent of their risk-weighted assets. Thus the capital requirements for a category of risk can be calculated by multiplying the relevant risk weights by 8 percent.

162. It is therefore generally believed that banks’ Standardized Approach (SA) computation engines have the ability to support all the approaches simultaneously and to switch between these approaches as necessary.

163. European Union countries will apply Basel II to all credit institutions and investment firms irrespective of size, whereas in Japan and the United States, the new framework should be applied primarily to the large internationally active banks, with alternative arrangements made available for smaller institutions.

164. Both approaches are to be implemented by end-2006 according to the Basel II framework.

165. For instance, Basel II provides that banks using the F-IRB approach will not have capital relief exceeding 5 percent of their Basel I requirement during their first year of implementation, 10 percent during the second, and 20 percent during the third.

166. For example, in its guidelines on adoption of the Internal-Ratings-Based Approach (IRB), the Monetary Authority of Singapore (MAS) has indicated that it may permit phased rollouts in certain cases. However, MAS will generally not permit a banking group to adopt IRB unless it is able to do so meaningfully from its IRB adoption date. This means that the initial rollout should account for the banking group’s most significant portfolios in terms of size and risk profile. At a minimum, MAS expects exposures that attract at least 60 to 70 percent of the capital requirements for IRB to transition to IRB on the IRB adoption date. It also expects a bank to complete the IRB rollout across the entire banking group within two years, unless under exceptional circumstances, such as a significant merger or acquisition. A prolonged or patchy rollout would suggest that the bank’s risk management capability has not achieved sufficient sophistication on a group-wide basis. It would blur the distinction between capital and provisioning requirements as intended under IRB. (Under IRB, margin incomes and provisions cover expected loss and capital is expected to cover unexpected loss. The Standardized Approach does not make such a distinction.)

167. For example, small and medium-size enterprises are defined as enterprises having a turnover of up to 50 million euros in the IRB approach, while SA provisioning allows the classification of corporates within the retail portfolio as long as exposures do not exceed one million euros.

168. Validation by the institution is in all cases a prerequisite for an assessment by supervisors.

169. Basel II may assist banks in articulating their capital deficiency and provide a sense of urgency to address the issue. It appears that some poorly capitalized banks have already engaged in fund-raising to address the implications for their capital ratios of adopting Basel II.

170. These results should be taken with a degree of caution since they are based on information gathered in 2002, when most banks were still at a very early stage in their Basel II implementation.

171. Although SMEs belong either to the retail or corporate Basel II portfolios, banks were required to report their SME exposures separately for the third quantitative impact study.

172. These are objectivity, independence, international access/transparency, disclosure, resources, and credibility.

173. Some banks attempt to solve their shortage of data by purchasing published default data from various vendors. If they do so, they must ensure that their portfolio correlates to the external vendor’s data, so that they can determine how applicable the vendor’s data are to their own customer base.
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Well-functioning financial markets are critical for supporting East Asia’s ambitious growth and development agenda. Over the coming years, East Asia’s financial sector will need to be highly diversified to meet the needs of increasingly complex and sophisticated economies. It will need to provide financial services efficiently, and it will need to be robust to withstand potential shocks in a fast-changing, globalizing world economy.

Since the 1997 financial crisis, East Asian economies have made significant progress in strengthening and diversifying their financial markets. But sizable challenges remain in the main segments of the financial sector: banking, equity, and bond markets.

*East Asian Finance: The Road to Robust Markets* provides a comprehensive overview of the financial markets in the East Asia region. It undertakes a systematic analysis of each of the financial segments in terms of access, efficiency, and stability, and discusses the remaining challenges and policy priorities. It argues that the East Asian economies need to focus on further developing the securities markets. In particular, given the depth of the financial sector overall, economies in East Asia lag behind in the relative importance of the bond market. The text discusses the critical policy agenda to further develop these markets, both at the regional and domestic levels.

The book will be useful for policy makers, market participants, and development practitioners, as well as for researchers and students.