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Bond Market Development in East Asia: Issues and Challenges

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Foreword

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Abstract

In postcrisis Asia, the development of domestic bond markets is increasingly seen as one of the key requirements to strengthen the financial sectors of East Asian countries and to reduce their vulnerabilities to future financial crises. There is a great diversity in terms of the level of bond market development across East Asian countries. Judged by several indicators of bond market development, Hong Kong, China and Singapore are ahead of other countries, followed by a second tier consisting of Korea; Malaysia; and Taipei,China and a third tier consisting of People's Republic of China, Philippines, and Thailand. Indonesia's bond market is perhaps the most nascent among East Asian bond markets. Initiatives to develop bond markets in East Asia should focus on: (i) sustaining a stable macroeconomic environment with low inflation and stable interest rates, (ii) developing a healthy government bond market that would serve as a benchmark for the corporate bond market, (iii) completing the postcrisis agenda of banking sector restructuring, (iv) improving corporate governance, (v) strengthening the regulatory framework for bond market, (vi) rationalizing tax treatment of bonds, (vii) broadening the investor base, and (viii) promoting the growth of regional bond market centers. Since at present there is a great diversity in the levels of bond market development across countries, significant country-specific deciphering of these requirements will be needed for developing country strategies for bond market development.

I. INTRODUCTION

The 1997 Asian financial crisis came as a shock to the region's economies. In the postcrisis period, efforts are under way in several areas to address the structural weaknesses that contributed to the crisis. The financial sector is one such arena.

East Asian financial sectors are heavily bank-dominated. In almost all the East Asian countries, bank loans dwarf equity and bonds, in striking contrast with the case of the United States (US), where bonds dominate (Asian Policy Forum 2001, Batten and Kim 2001). Ideally, commercial banks, whose liabilities are largely demandable short-term deposits, should primarily be making short-term loans. Banks are not well suited to finance long-term investments on a large scale, as the marriage of short-term liabilities and long-term assets results in maturity mismatches in their balance sheets.

While maturity mismatches can be managed to some extent by prudential regulation, they make banks more vulnerable to crisis, which often tend to be systemic. The existence of a robust bond market mitigates this potential maturity mismatch of a bank-dominated financial sector, reduces financial sector fragility, and provides long-term capital for business investment more cheaply (Yoshitomi and Shirai 2001, Asia-Pacific Economic Cooperation 1999). Equity capital has a similar effect. Insofar as bond and equity markets help narrow the gap between domestic and foreign interest rates, they also reduce the amount of domestic investment financed by foreign borrowing. This reduces the currency mismatch (between domestic currency assets and foreign currency liabilities), another source of vulnerability of a financial system.

Overall, therefore, there is a growing consensus in postcrisis Asia that there is a need for bringing about greater balance in East Asian financial sectors through the development of robust domestic bond markets. In response, the Asian Development Bank has done some work on several aspects of developing domestic bond markets in Asia.

This paper integrates the key findings and conclusions of that work. The paper is organized as follows. Section II presents an assessment of East Asian bond markets. Section III summarizes the key challenges of developing robust domestic bond markets in East Asia. Section IV provides the key conclusions. The paper makes extensive use of Kim (2001), Shirai (2001), Tan (2001), Li-Yen (2001), Woo and Oh (2001), Chok and Choy (2001), Saldaña (2001), Ganjarerndee (2001), Batten and Kim (2001), ADB Institute (2001), Kim and Suleik (2001), McCroy (2001), Mingli and Lui (2001), Rowter (2001), Shin (2001), and Shui (2001).

II. EAST ASIAN BOND MARKETS: A REVIEW

There is a great diversity in the levels of bond market development across East Asia, defined here to include the five Association of Southeast Asian Nations (ASEAN) countries—Indonesia, Malaysia, Philippines, Singapore, and Thailand—plus People's Republic of China (PRC); Hong Kong, China; Republic of Korea (Korea); and Taipei,China.

A. Size of East Asian Bond Markets

In terms of absolute value, the size of domestic bond markets in East Asia ranges from about $2 billion in Indonesia to about $300 billion in Korea. At about $800 billion, the combined size of the bond markets of the nine economies in East Asia is equivalent to about 7 percent of the United States (US) bond market, or about 12 percent of the Japanese bond market. Relative to the size of these economies, the size of East Asian bond markets range from less than 2 percent of GDP in Indonesia to over 90 percent in Malaysia (Table 1). In comparison, bond markets constitute about 126 percent of GDP in the US, 143 percent in Japan, and 60 percent in Australia. Within East Asia, public sector bonds account for the major share of the bond markets in the PRC, Philippines, Singapore, and Thailand, while financial institutions and the corporate sector account for the bulk of bond markets in Hong Kong, China; Korea; and Malaysia.

Table 1. **Outstanding Local Currency Denominated Bonds, 2001**[a]
(percent of GDP)

	Total	Public Sector	Financial Institutions	Corporate Sector
China, People's Rep. of	28.7	19.6	8.3	0.7
Hong Kong, China	26.9	11.9	12.0	3.1
Indonesia	1.5	—	—	—
Korea, Rep. of	69.3	18.3	23.2	27.8
Malaysia	93.4	35.0	7.9	50.6
Philippines	32.0	—	—	—
Singapore	37.4	32.9	0.0	4.6
Taipei,China	17.0	—	—	—
Thailand	33.7	26.2	2.5	5.0

— not available.
[a]Except for Indonesia (2000); Philippines; and Taipei,China (1997-1998).
Source: IMF (2002).

B. Secondary Market Turnover

The liquidity and the overall dynamism of the bond market is largely reflected by the extent of trading in the secondary market. The secondary market turnover ratio—the ratio of annual stock transactions to outstanding stock of bonds—is, therefore, a good indicator of the liquidity and the dynamism of a bond market. In terms of this turnover ratio, Hong Kong, China leads in East Asia (with a turnover ratio of about 20 percent); followed by Taipei,China (9 percent); Singapore (8 percent); Korea (5 percent); Thailand (0.41 percent); Indonesia (0.35 percent); Malaysia (0.25 percent); and Philippines (0.03 percent) (Table 2). These turnover ratios are lower than in countries with mature bond markets. For example, in Australia, the comparable turnover ratio is more than 50 percent.

Table 2. **Secondary Market Turnover Ratio, 1997/1998**
(percent)

Hong Kong, China	19.67
Singapore	8.15
Taipei,China	8.62
Korea, Rep. of	5.22
Malaysia	0.25
Thailand	0.41
Philippines	0.03
Indonesia	0.35
Australia	52.61

Source: APEC (1999).

C. Maturity Structure of Government Bonds

The more mature bond markets exhibit longer average maturity since investor confidence is gauged by their willingness to commit resources to longer time horizons. However, this index is not readily available for East Asia. A qualitative evaluation based on available information indicates that bond markets in Hong Kong, China and Singapore appear to have better maturity coverage (short, medium, and long term), than in the other East Asian countries. Although neither of these governments issue bonds to finance fiscal deficits, in both these countries, bond issuances are frequent and regular, and a benchmark yield curve for government bonds exists as a reliable gauge of market price.

Korea's issuances concentrate on short- and medium-term bonds in contrast to Taipei,China's, which has very little on the short end, but is rather developed on the medium- and long-term end. Although most of Malaysia's domestic bond issuances are concentrated on the long-term end, it has sizable short- and medium-term issuances as well. Bonds in the Philippines are concentrated mostly in treasury bills with maturity of one year or less, while its issuance of long-term bonds is sporadic and small. Thailand's bond market had traditionally concentrated on short-term corporate bills of exchange, and had little on the longer end. However, in the postcrisis years, the maturity of government bonds has increased significantly. Bond issuances in Indonesia and the PRC are also mostly of short- and medium-term maturities.

Except for Hong Kong, China and Singapore, the maturity structure of government bond issuances seems to be somewhat lopsided in most East Asian countries. Among other factors, this makes it difficult for the government bond markets in these countries to provide the bond markets with a stable and predictable yield curve as a reliable basis for pricing corporate bonds. This is in contrast to the mature bond markets, where government bonds provide the benchmark yield curve for the bond market.

D. Investor Base

In mature bond markets, the investor base for bond markets is generally well diversified, with banks, mutual funds, and contractual savings institutions such as pension funds and insurance companies providing the investor base for the bond market. Since many of these financial institutions are underdeveloped in many East Asian countries, the investor base for the bond market is less diversified, although there are significant differences across countries in this respect.

Private banks largely absorb bond issuances in Hong Kong, China with contractual savings institutions (pension funds and insurance and even securities firms) taking the rest. This contrasts with Singapore where the state-run provident fund is the major buyer with private banks and other financial institutions playing a secondary role. Bond issuances in Korea are largely absorbed by banks. About 50 percent of bond issuances in Taipei,China is absorbed by private banks and another 50 percent by contractual savings institutions. Malaysia is also highly dependent on employee pension funds for bond absorption, while the Philippines depends more on private commercial banks. Indonesia and Thailand rely more on pension funds with Indonesia having some participation by securities funds as well.

E. Tax Treatment of Bonds

The PRC and Hong Kong, China provide income tax-exempt status to sovereign bonds. Profits on bond transactions are taxed at concessionary rates. Singapore also accords a concessionary tax on qualifying securities. Hong Kong, China has no transactions tax on bond transactions. Korea taxes bonds at concessionary rates and in a limited and sporadic way. So do Indonesia, Malaysia, Philippines, and Thailand.

F. Market Infrastructure

Bond market infrastructure has many dimensions including: issuance modality (auction vs. underwriting vs. captive or mandatory transactions); bidding modality (remote electronic vs.

physical, open vs. primary dealer); and delivery and settlement system (whether a book entry or scriptless settlement exists).

1. Primary Issuance Method

Most East Asian countries use the auction method to issue government bonds, although underwriting by banks is also used as an alternative method in some countries at times. Accredited dealers are allowed to bid in auction of sovereign bond issuances. Hong Kong, China; Korea; and Singapore have an advanced scriptless book entry and remote auction system. The other countries in the region have remote auction of varying effectiveness but scriptless book entry system is not common. In contrast with the issuance of government bonds, issuance of private/corporate bonds is largely through underwriting by banks and brokerage houses.

2. Secondary Market Transactions

Most secondary market transactions in East Asian bond markets are still over-the-counter (OTC). This is true of even Hong Kong, China and Singapore, where the secondary market turnover ratio is higher than the rest. The use of the stock market exists but is limited (e.g., the PRC and Indonesia both of which have largely stock market-mediated secondary trading).

3. Cross-country Electronic Connection

Hong Kong, China and Singapore have a well-developed infrastructure for cross-country connections of their bond markets, although such cross-country connections are increasing in Korea and Taipei,China as well. Both Hong Kong, China and Singapore have hosted US dollar-denominated bond flotations. A growing number of Hong Kong, China dollar-denominated debt by foreign governments, multilateral organizations, and foreign private corporations in recent years is a pointer to the relative maturity of Hong Kong, China's bond market. Similarly, Singapore now has the Asian-US dollar bonds that counterpart Euro dollar bonds.

G. East Asian Bond Markets: An Overall Assessment

Based on several indicators, such as size and composition of bond market, secondary market turnover, maturity structure of bonds, market infrastructure, the regulatory framework, investor base, and openness to foreign investors, East Asian countries could be grouped into four broad categories in terms of the overall development of their bond market:

(i) Hong Kong, China and Singapore
(ii) Korea; Malaysia; and Taipei,China
(iii) PRC, Philippines, and Thailand
(iv) Indonesia

A qualitative assessment of the legal and regulatory framework across countries is given in Table 3 and a similar assessment of the indicators of market infrastructure is given in Table 4. Since several of these indicators of bond market development are qualitative in nature, an element of subjectivity is almost impossible to avoid in categorizing countries according to the stages of their bond market development. This limitation should be kept in mind in interpreting this country categorization.

Table 3. **Indicators of Quality of the Legal and Regulatory Framework**
(0 to 10 scale, higher is better)

	Contract Realization	Lack of Corruption	Rule of Law	Bureaucratic Quality	Accounting Standards	Press Freedom	Total Score	Ranking
Hong Kong, China	8.82	8.52	8.22	6.90	7.3	6.72	7.75	1
Singapore	8.86	8.22	8.57	8.52	7.9	3.44	7.58	2
Taipei,China	9.16	6.85	8.52	n/a	5.8	7.16	7.5	3
Korea, Rep. of	8.59	5.30	5.35	6.97	6.8	7.36	6.73	4
Malaysia	7.43	7.38	6.78	5.90	7.9	3.90	6.55	5
Thailand	7.57	5.18	6.25	7.32	6.6	6.02	6.50	6
Philippines	4.80	2.92	2.73	2.43	6.4	5.54	4.14	7
Indonesia	6.09	2.15	3.98	2.50	n/a	2.86	3.52	8
United States	9.00	8.63	10.00	10.00	7.6	8.72	8.99	
Japan	9.69	8.52	8.98	9.82	7.1	7.92	8.67	
Australia	8.71	8.52	10.00	10.00	8.0	9.12	9.06	

Note: Somewhat close on the heels of Hong Kong, China and Singapore, and forming the second tier in bond market development in East Asia, are Korea; Malaysia; and Taipei,China. In terms of absolute value, Korea has the largest bond market in East Asia. Relative to GDP, bond markets in both Korea and Malaysia constitute about two thirds of their respective GDPs. In recent years, in both countries the market infrastructure for bond market has made significant improvements and the authorities have been taking initiatives to improve the regulatory framework. However, in both countries the lack of a benchmark government bond yield curve, inadequate liquidity in the secondary market, and somewhat ad-hoc tax treatment of bonds constitute major constraints on the bond market. Moreover, although the corporate bond markets are sizable in both countries, these have been sustained in the past by government guarantees (explicitly in Korea and implicitly in Malaysia through the application of the "too-big-to-fail principle" for the big banks, which issued a large share of bonds). However, in the postcrisis years, both markets are becoming increasingly market-oriented.
Source: Brouwer (2002).

Bond markets in Hong Kong, China and Singapore appear to be more advanced than those in the rest of East Asia. Both countries have relatively small (about one fourth of their GDPs) but efficient bond markets. Both have: (i) government bond yield curves extending up to 10 years, which are used as a reliable basis for pricing corporate bonds; (ii) efficient market infrastructure; (iii) sound regulatory environment; (iv) good secondary market liquidity; (v) liberal tax treatment of bonds; (vi) diverse issuer profile (consisting of triple-A rated supranational agencies, multinational corporations, and local corporations); and (vii) strong commitment by the authorities to develop and foster the domestic debt markets. In addition, bond markets in both countries are open to foreign investors, with hardly any restrictions and reporting requirements. In many respects, therefore, these two countries belong to the first tier in bond market development in East Asia.

Table 4. **Indicators of Quality of the Financial Infrastructure**
(0 to 10 scale, higher is better)

	Delivery and Settlement	Benchmark Yield Curve	Public Issuance Modality	Private Issuance Modality	Average Score	Ranking of East Asian Countries
Hong Kong, China	8	8	8	8	8.0	1
Singapore	8	8	8	8	8.0	1
Taipei,China	8	4	8	8	7.0	2
Korea, Rep. of	6	6	8	6	6.5	3
Malaysia	6	4	6	6	5.5	4
Thailand	4	4	4	4	4.0	5
PRC	2	0	2	0	2.0	6
Philippines	2	0	4	0	1.5	7
Indonesia	2	0	2	0	1.0	8
US	10	10	10	10	10.0	

Notes on Ranking Criteria:

Delivery and Settlement: Speed and reliability are the qualities that are most desired here. The existence of a tested electronic, scriptless book entry system leading to real time gross settlement and the widespread use of the same defines the first best. In comparison, physical delivery and settlement are subject to delays, disruption, and loss in transit. Hong Kong, China; Singapore, and Taipei,China have the most sophisticated system even for cross-border connections. In Indonesia and the Philippines, scriptless book entry is only being planned. Some kind of central depository and settlement exists in the PRC and Thailand.

Benchmark Yield Curve: A yield curve must not only cover all maturities but must be market-driven enough for price marking. A deep and liquid government bond market covering all maturities is a crucial prerequisite for this. PRC, Indonesia, and Philippines do not yet have a reliable yield curve across all maturities. Thailand has a yield curve but it is still in a somewhat nascent stage. Korea and Malaysia's yield curves are based on government securities that carry some implicit subsidy.

Public Issuance Modality: The premium here is on market orientation and, thus, proper pricing of indebtedness. Auction is the most desirable form followed by underwriting and, finally, tap. Auction can be electronic and remote or physical and open cry. Many countries may employ all three depending on the circumstances. Hong Kong, China; Korea; Singapore; and Taipei,China are leaders in these categories. Malaysia has some dependence on pension and other institutions under mandatory requirement. PRC, Philippines, Thailand already have electronic/remote auctions and primary dealer system but still leave room for improvement.

Private Issuance Modality: Again, market orientation is the key segment here. Auction of private issuance is still uncommon; underwriting or private placement is the preferred route. PRC, Indonesia, and Philippines do not have infrastructure (the PRC has legal impediments to private issuance; the Philippines has stiff shareholder approval for the same; while in Indonesia, SOEs perform the issuing). Thailand has a rudimentary market for private corporates. Korea and Malaysia exhibit some dynamism but again implicit subsidies exist. Hong Kong, China; Singapore; and Taipei,China are the leaders.

Source: Authors' estimates.

Compared to both Korea and Malaysia, Taipei,China's bond market is much smaller relative to its GDP. However, what it lacks in size, Taipei,China's bond market makes up for in terms of other aspects: good secondary market turnover, efficient financial market infrastructure, and sound legal and regulatory framework. In fact, in terms of these aspects, Taipei,China's bond market is closer to those of Hong Kong, China and Singapore. However, unlike Hong Kong, China and

Singapore, Taipei,China's bond market, like Korea and Malaysia, lacks a benchmark government bond yield curve, and is also less open to foreign investors. Therefore, on a balance of considerations, along with those of Korea and Malaysia, Taipei,China's bond market appears to belong to the second tier in East Asia.

Judged by several indicators, the bond markets in the third category of countries—PRC, Philippines, and Thailand—are less developed than in the first and second categories. Despite this commonality, however, there are significant differences in the bond markets across these countries in the third tier.

In absolute value, the PRC's bond market has grown enormously in the second half of the 1990s: from about $70 billion in 1994 to $261 billion by 2000. If this trend growth is maintained, within the next few years, the PRC's bond market is set to surpass Korea's and is likely to become the largest bond market in East Asia. However, in terms of regulatory framework, market infrastructure, secondary market liquidity, and government bond market yield curve, the PRC's bond market has a long way to go. The small size of the private sector in the PRC also poses as a constraint on bond market development.

Thailand's domestic debt market has undergone significant structural changes in recent years, from being a market dominated by short-term corporate bills of exchange to a fully tradable government yield curve extending out to 20 years. Yet, in terms of regulatory framework, secondary market liquidity, and investor base, the Thai bond market needs significant strengthening. The Philippine bond market is dominated by short-term government bonds, and the corporate bond market is almost absent, not to speak of the challenges of improving the regulatory framework, market infrastructure, and secondary market liquidity.

Judged by almost all indicators, Indonesia's bond market is very small and in a much more nascent stage of development than those in the other East Asian countries.

III. TOWARD ROBUST DOMESTIC BOND MARKETS

The list of requirements for the development of robust domestic bond markets in East Asia appears lengthy and formidable. Each, at the outset, may look as necessary as the other. Since at present there is a great diversity in the levels of bond market development across countries, these requirements will not be uniformly applicable and compelling for all the countries. Significant country-specific deciphering of these requirements will, therefore, be needed for developing country strategies for bond market development. At a somewhat broader level, the challenges of developing the bond market will be progressively more formidable to countries in the lower tiers.

A. Sustaining a Stable Macroeconomic Environment

A robust corporate bond market is unlikely to evolve in a volatile macroeconomic environment characterized by volatile inflation and interest rates. In such a macroeconomic environment, companies are likely to take a shorter time horizon in making investment decisions. They may either eschew long-term investments altogether or lower the scale of such investments, thus lowering the demand for long-term financing. Further, the number of creditworthy firms shrinks, as does their demand for long-term funds. Credit risk associated with corporate bonds rises in view of the perceived systemic risks. All these would affect the supply side of the bond market. On the demand side, under a volatile macroeconomic environment, both individuals and institutional investors in financial assets develop a preference for assets with shorter maturities such as bank deposits and government treasury bills, thus starving the bond market of funds.

Bond markets in general and corporate bond markets in particular have, therefore, developed rapidly in countries where the macroeconomic environments have been more stable and predictable. Meanwhile, in countries where the macroeconomic environment has been relatively volatile, the corporate bond market has had to rely heavily on government support in one form or another. In Korea, this has taken the form of state banks issuing bonds with government guarantees and relending to corporations (also covered by government guarantees). In the PRC, the government had to resort to, initially, mandatory quota allocation and, subsequently, to heavy subsidies in order to create a demand for bonds issued by the state-owned enterprises. In the Philippines, among other things, the volatile macroeconomic environment discouraged the development of a corporate bond market. Where longer-term financing was required, Philippine companies issued short-term commercial papers. The widespread use of renewable commercial papers by Philippine companies partly reflects a lack of confidence in the longer-term stability of the macroeconomic environment.

Thus, one of the most crucial requirements for the development of a robust bond market is a stable and predictable macroeconomic environment. Low inflation and stable interest rates are key ingredients of such an environment.

B. Developing the Government Bond Market

Experience from industrial countries suggests that a healthy government bond market creates a conducive environment for the development of a robust corporate bond market (IMF 2002). Within East Asia, the experiences of Hong Kong, China and Singapore also highlight the importance of government bond markets for the overall development of the bond market. Successful government bond issuance—seen through to final redemption of long-term government bonds—does work as a catalyst for corporate bond market. A robust government bond market provides the corporate sector with a reasonable basis for valuation and pricing of its bonds. However, for the latter to happen, the government bond market needs to be "truly market-driven", with the government bond prices determined by supply and demand. Government bond issuances that are captive or laced with mandatory rules and compulsions cannot, however, provide a pricing benchmark for the corporate bond market. To be really useful as a benchmark for pricing corporate bonds, the government bond market must also be well balanced in terms of maturity structure, with regular issuances of bonds with varying maturities.

A government bond market may, of course, provide a wherewithal for deficit financing at presumably lower interest rates. Care should, however, be exercised in using government borrowing for financing the fiscal gap as a vehicle for bond market development. Persistently large fiscal deficits could itself be a source of macroeconomic instability thus hampering the development of a corporate bond market. Government borrowing for financing the fiscal deficit could also crowd out funds for the corporate sector. Moreover, the experiences of Hong Kong,China and Singapore show that development of a robust government bond market does not necessarily require governments to run fiscal deficits. There are, therefore, useful lessons from the Hong Kong, China and Singapore experience for the other East Asian countries in their efforts at developing a healthy government bond market.

C. Completing Banking Sector Restructuring

Since the bank domination of East Asian financial sectors has generally been pointed out as a factor causing the somewhat unbalanced growth of financial sectors of East Asian countries, this proposal for bond market development may sound somewhat ironic. However, it is important to recognize that a banking system that is free from political interference and operating on market principles can be an important source of demand for the bond market.

It is generally observed that where rules are clear, banks are more market-oriented, and where the macroeconomic environment is stable, corporate bond markets have developed rapidly (e.g., Australia; Hong Kong, China; and Taipei,China after financial deregulation in the 1980s). Today, banks in these countries are major buyers of corporate bonds. Hence, a robust banking sector operating along market principles will reinforce rather than weaken the bond market (Yoshitomi and Shirai 2001, Brouwer 2002).

The postcrisis agenda of banking reforms and restructuring in East Asia should, therefore, be seen through to its conclusion. Since the Asian financial crisis, there has been significant consolidation in the banking systems of East Asian countries. In many of these countries, the number of banks has declined, foreign banks have entered for the first time, nonperforming loans in banks' balance sheets have fallen, capital adequacy ratios have improved, and banking sector profitability has improved. Going forward, the recent efforts to resolve the problem of nonperforming loans should be continued, banks' capital bases need to be augmented, prudential regulations that have been introduced in the aftermath of the 1997-1998 financial crisis should be effectively enforced, and banks should be returned to the private sector.

In some countries, government ownership of the banking sector is still substantial. For example, in Thailand the government still owns about one third of bank assets, almost unchanged from 1998, while in Indonesia the government still controls nearly three fourths of bank assets. Similarly, the government controls almost 90 percent of bank assets in the PRC. Privatizing the banks along with strengthening the regulatory framework for the banking sector is crucial for making the banking sectors truly market-driven, which in turn will facilitate bond market development.

D. Improving Corporate Governance

In many East Asian countries, corporate governance problems arise mainly on account of weak protection of minority shareholder rights, lack of transparency, and inadequate market discipline for corporations, which often tend to be owner-managed. In many of these countries, minority shareholder value has traditionally been neglected. While this works against equity financing, it need not necessarily work against bond financing. However, what works against bond financing is that weak minority shareholder rights also create uncertainties as to whether or not bondholder rights will be upheld during disputes and bankruptcies (ADB 2001).

Inadequate market discipline and transparency means that controlling interests may take unwarranted risks and, thus, raise the likelihood of bond default. This means that bond investors will demand a higher premium for holding corporate bonds. Naturally, the higher cost also makes it likely that the bond issuer will default. All these limit the use of bond financing by the corporate sector.

There have been several reforms of equity rights protection in East Asia. Indonesia now has one-share, one-rate, proxy voting by mail, shares not blocked, and cumulative voting for board of directors in its statute books. Korea lacks only the proxy voting by mail. In 2000, Malaysia adopted a code on corporate governance. In all economies, new and improved accounting and crediting standards as well as disclosure rules for listed companies are being introduced. However, their enforcement still remains a problem. Violations of these rules and standards are still not uncommon. For bonds, the imperative is for bankruptcy rules to be clear, legally empowered, and explicit on the treatment of creditors' rights. Likewise, improved financial and transaction disclosure will help alleviate the moral hazard problem that raises the credit risk (ADB 2001).

E. Strengthening the Regulatory Framework

By its very nature, a bond is a contract that involves the handover of cash today in exchange for a claim of payment with agreed-upon interest rates at some future date. The longer the lag between handover and complete payment, the more risks of nondelivery the claim has to face.

Rules and their enforcement guarantee that the counterparty's rights and claims are properly protected through the life of the contract or in case of its dissolution. When these are not provided for, investors prefer to invest in assets with shorter maturities (e.g., commercial paper and bank deposits) thus discouraging bond financing. Learning from the experiences of countries with better developed bond markets, both within and outside the region, many East Asian countries need to improve the regulatory framework for the bond market.

Enforcing the formal regulatory framework is as important as developing it. It is important to ensure that courts and enforcement agencies act and decide fairly and expeditiously to resolve commercial disputes. In many East Asian countries, the enforcement of the regulatory framework is lax. In some countries, it may even be necessary to set up specialized enforcement entities and courts to ensure that capital market transactions and contracts are enforced effectively and expeditiously.

F. Rationalizing Tax Treatment

Bond markets are very sensitive to tax incentives. In countries with nascent bond markets, the formulation of the tax structure may not have given sufficient consideration to avoiding distortions in taxation of income from savings and various types of investment, including bond transactions. If bond transactions are subject to higher taxation relative to other financial transactions and instruments, it will naturally discourage bond market development both from the supply and the demand sides: companies would choose to finance their investments from sources other than bonds and investors would choose to invest in other forms of assets than bonds. Similarly, if the transaction taxes such as documentary and stamp duties are biased against bonds, bond financing will be discouraged.

Hong Kong, China has the most amenable tax regime. Exchange Fund Papers in Hong Kong, China are exempt from interest income tax, trading profit tax, and stamp and documentary tax. In Singapore, securities that qualify are either tax-exempt or taxed at concessionary rates.

G. Broadening the Institutional Investor Base

Pension funds, insurance companies, and other contractual savings institutions have generally played an important role in expanding the investor base for bond markets in industrial countries. In many East Asian countries, such institutions are in a nascent stage of development. Moreover, in several countries, these institutions are by statute required to invest their funds in government-designated assets. They were largely closed to direct corporate borrowers, thus constraining the growth of the corporate bond market.

Public pension funds, insurance companies, and mutual funds operating under effective prudential regulation and transparent rules should be allowed to invest in corporate bonds, but with enough safeguards built in the regulatory framework to ensure that the investment decisions of these institutions are based on commercial considerations. The principal reason why Singapore's Central Provident Fund has played such an important role in the development of the country's bond market is the confidence inspired among its members that their contribution, as heavy as it was, was invested and managed well. Insulation of the Central Provident Fund from political interference was the key for building that confidence.

There are several policy options for East Asian countries to move these institutions closer to greater independence and market orientation. Corporatization is one such option, while a more radical step would be privatization of pension funds. The strengthening of private insurance and mutual fund companies involves a credible regulatory framework and contract enforcement entities. These are, of course, fiduciary activities in themselves that create dangers, ranging from moral hazard (imprudent decisions that lend to bankruptcy) to predatory and opportunistic behavior. Where these are rampant and unpunished, these institutions will be handicapped in playing an important role in bond market development.

H. Promoting Regional Bond Market Centers

In many East Asian economies, the investor base may not be large enough to support a truly dynamic and mature bond market. This is a problem of size of the bond market, which in turn impacts on the liquidity of the market. Even Hong Kong, China and Singapore, advanced as they are in bond market development in the region, face this constraint relative to the larger Japanese, US, and more integrated European markets.

Many East Asian governments and firms regularly issue US-dollar-denominated bonds in the more established markets. (Yen and euro issuances are also growing.) Greater liquidity in these established markets may mean possibly lower interest rates. The telecommunications revolution means that physical and information distance has become less relevant when it comes to bond issuance. Thus, the Asian dollar bond market based in Hong Kong, China or Singapore suffers the size-drawback, which in turn reinforces the liquidity-drawback.

The Asian dollar bond market has some distinct roles to play. For example, in the wake of the Asian crisis, established markets outside the region made little distinction between crisis and noncrisis countries—they were all lumped together as East Asian. Within the region, however, the distinction was very pronounced and, thus, within-region investors could back selective issuances and discern profit possibilities.

Thus, there is a reason for East Asian countries to develop regional bond market centers (Brouwer 2002). There have already been US dollar bond issuances by foreign entities in Hong Kong, China and Singapore. These two markets clearly have the edge in terms of location, bond market infrastructure, regulatory framework etc. to become the regional bond market centers in East Asia.

IV. CONCLUSION

In postcrisis Asia, the development of domestic bond markets is increasingly seen as one of the key requirements to strengthen the financial sectors of East Asian countries and to reduce their vulnerabilities to future financial crises.

There is a great diversity in terms of the level of bond market development across East Asian countries. Judged by several indicators of bond market development, Hong Kong, China and Singapore are ahead of other countries. This is followed by a second tier consisting of Korea; Malaysia; and Taipei,China and a third tier consisting of PRC, Philippines, and Thailand. Indonesia's bond market is perhaps the most nascent among East Asian bond markets.

Going forward, the list of requirements for the development of robust domestic bond markets in East Asia appears lengthy and formidable. Each, at the outset, may look as necessary as the other. Since at present there is a great diversity in the levels of bond market development across countries, these requirements will not be uniformly applicable and compelling for all the countries. Significant country-specific deciphering of these requirements will, therefore, be needed for developing country strategies for bond market development. At a somewhat broader level, the challenges of developing the bond market will be progressively more formidable to countries in the lower tiers.

Subject to this caveat, initiatives to develop bond markets in East Asia should focus on: (i) sustaining a stable macroeconomic environment with low inflation and stable interest rates, (ii) developing a healthy government bond market that would serve as a benchmark for the corporate bond market, (iii) completing the postcrisis agenda of banking sector restructuring, (iv) improving corporate governance, (v) strengthening the regulatory framework for bond market, (vi) rationalizing tax treatment of bonds, (vii) broadening the investor base, and (viii) promoting the growth of regional bond market centers.

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