

PART ONE

FINANCIAL RESOURCES FOR DEVELOPMENT

Post-Crisis Policy Agenda for Reforming the Financial Sector in Asia

Yun-Hwan Kim

Introduction

The Asian financial crisis has changed financial market conditions for both medium and large enterprises (MLEs) and micro and small enterprises (MSEs)¹. MLEs in the crisis countries² must now diversify their industrial and infrastructure financing. They have hitherto relied heavily for long-term development resources on short-term external borrowing from domestic and foreign banks. This is due to a focus on setting up bank-centred financial systems without sufficiently encouraging alternative ways of financial contracting³.

The bank-based system has greatly contributed to the region's high economic growth but has also created serious problems, notably the bank-based short-term financing which has caused critical financial mismatches concerning maturity and currency. The maturity mismatch arose from unhealthy financing practices, featuring large long-term investments through short-term borrowing⁴. This involved a serious currency mismatch without a proper currency-hedging arrangement. In fact, the currency mismatch was implicitly protected by overvalued exchange rates caused by foreign exchange misalignments in these countries.

Financial sectors in the crisis economies have been far less successful than the real sectors. Financial sector weaknesses are deep-seated and have caused problems in the overall economy. The crisis countries have also not seriously tackled these weaknesses during the high growth of the last four decades. The financial sectors remain weak mainly because of traditional government intervention in the operation of financial institutions, direct fiscal support for special-purpose banks, implicit government guarantees about bank operations and an improper financial sector development strategy playing down the role of capital markets. So the Asian crisis is seen as a liquidity crisis rather than a macroeconomic one.

MLEs in Asian developing economies, including the crisis economies, will see important post-crisis changes in financing, including extreme reluctance by foreign and domestic banks to provide it⁵. This will cause bank disintermediation, as in the United States and to a lesser extent Japan and Europe⁶, though for different reasons. Since bank intermediated finance is still the biggest source of industrial funds in Asian developing countries, the change underlines the need for disintermediated financing. Prospects for domestic bond markets are very good because of high savings rates there.

MSEs have a different kind of problem. Since the Asian crisis, it has become harder to finance them through local banks and microfinance institutions that are their only source of external financing in the absence of access to capital markets. MSEs are important for creating jobs and reducing poverty because they are usually labour-intensive and account for the largest part of the workforce. So MSEs weigh more heavily in low-income countries than middle or high-income ones. They account for about two-thirds of all jobs and a third of production in most low-income Asian countries. Improving their access to finance is crucial to any sustained growth and increase in jobs in the post-crisis period.

Industrial Financing in the Asian Crisis Economies⁷

Industrial financing involves new equity and debt financing through bank intermediated or direct securities issues in domestic or foreign bond markets.

Domestic Debt and Equity Financing

The size of bond and equity markets and domestic bank lending in the crisis economies at the end of 1998 is shown in Table 1. All crisis economies have larger banking sectors and much smaller bond and equity markets. The table shows how these countries' domestic financing has traditionally relied on banks. Malaysia has the largest market for bank loans and equity market capitalisation in relation to gross domestic product (GDP) while Korea has the largest corporate bond market in relation to GDP (27.3 per cent), followed by Malaysia (5.1 per cent), Thailand (2.6 per cent), and Indonesia (1.5 per cent).

The reliance of the crisis economies on bank intermediated finance is clear when compared to the large and integrated financial market in the United States⁸, where bank lending and corporate bond markets are almost equal in size (38.8 per cent and 43.2 per cent). The figures show Korea has the most disintermediated debt market and Indonesia the least. But Malaysia's equity market is comparable in GDP terms to that of the United States. Since intermediation via traditional financial institutions and direct securities markets competes on the basis of efficiency, the factors that have worked against development of non-intermediated financing in the crisis economies need to be pinned down.

Table 1. Bank Loans, Corporate Bonds and Equities in Asian Crisis Countries and the United States at end-1998
(percentage of GDP)

	Outstanding bank loans	Outstanding corporate bonds	Equity market capitalisation
Indonesia	60.2 ^a	1.5	16.2
Korea	43.5	27.3	30.7
Malaysia	148.4	5.1	134.4
Thailand	108.7	2.6	26.3
United States	38.8	43.2	158.1

a. end-1997.

Source: National monetary authorities and Bloomberg Investor Services.

Table 2 shows that of the Asian crisis countries listed, corporate bond financing increased between 1996 to 1998 only in Korea — from 18.2 to 27.3 per cent. The United States however, helped by recycling of bank loans through various securitisation vehicles, displays continuing disintermediation, with bond financing rising from 37.1 to 43.2 per cent.

When the financial crisis erupted, commercial banks in Korea became extremely cautious about new lending and were eager to withdraw old loans to meet the Bank of International Settlement (BIS) capital adequacy ratio. So industrial firms turned to bond markets for finance. In Malaysia, the banking sector was well capitalised before the crisis, with capital–asset ratios above 10 per cent, and Malaysian banks, along with those in Thailand and Indonesia, did not drastically cut loans to industry. However, Indonesia, Malaysia and Thailand have been all keen to develop corporate bond markets and this enthusiasm was boosted by the crisis.

Table 2. Outstanding Corporate Bonds in Asian Crisis Countries and the United States
(percentage of GDP)

	December 1996	December 1997	December 1998
Indonesia	1.9	2.5	1.5
Korea	18.2	21.4	27.3
Malaysia	6.1	7.1	5.1
Thailand	2.8	2.8	2.6
United States	37.1	39.6	43.2

Source: National monetary authorities and Bloomberg Investor Services.

International Bank Financing

International lending (by BIS reporting banks) to the crisis economies between 1996 and 1999 is shown in Table 3, along with lending to the Asia–Pacific region generally. In December 1996, lending was at a high of \$247.9 billion. It had dropped significantly to \$160.7 billion by June 1999.

Table 3. **International Bank Lending to Crisis Economies**
(\$ billion)

	December 1996	December 1997	June 1998	December 1998	June 1999
Total developing countries (TD)	692.6	891.7	860.7	842.7	809.6
Total Asia (TA)	367.1	378.8	319.6	299.4	287.0
Indonesia	55.5	58.0	48.4	45.0	43.8
Korea	100.0	93.7	71.6	65.6	63.5
Malaysia	22.2	27.3	22.8	20.9	18.6
Thailand	70.2	58.5	46.4	41.2	34.7
Total crisis countries (TC)	247.9	237.5	189.2	172.7	160.7
 (TA/TD) per cent	53.0	42.5	37.1	35.5	35.4
(TC/TD) per cent	37.8	26.6	22.0	20.5	19.8
<i>Average maturity (crisis economies)</i>					
Less than one year (per cent)	61.2	60.5	51.7	50.3	50.1
<i>Average maturity (total Asian economies)</i>					
Less than one year (per cent)	61.5	60.3	53.0	52.5	51.4

Sources: BIS (1999) *Consolidated International Banking Statistics for End-June 1999* (Basle, November) and BIS (1997) *The Maturity, Sectoral and Nationality Distribution of International Bank Lending: Second Half 1996* (Basle, July).

This seems to be linked to a cut in lending to Asia as a whole (from \$367.1 billion to \$287 billion) and an increase in lending to other developing countries (up from \$692.6 billion to 809.6 billion). Thailand (50 per cent) and Korea (37 per cent) suffered the biggest cuts in bank lending over the period. This suggests that after the Asian crisis, international bank lending to the crisis economies involved re-balancing investor portfolios away from Asia to other developing countries, especially Eastern Europe.

In 1996 Asia accounted for 53 per cent of international lending to the developing world. As the Asian financial crisis spread, this fell to only 35.4 per cent in June 1999 and the amount of this directed to the crisis economies dropped from 37.8 per cent in December 1996 to 19.8 per cent in June 1999.

The average maturity of lending to Asia and the crisis economies is shown in Table 3. At the peak of lending in 1996, 61.5 per cent of loans to Asia and 61.2 per cent of those to the crisis economies had a maturity of less than a year. Though this has since been extended, in June 1999 the crisis economies still borrowed 50.1 per cent of loans as short maturities, but this figure hides the fact that the increase in the average loan maturity is more to do with the non-rollover of short-term loans.

Though not shown in Table 3, most international lending to Korea was to the banking sector (falling from 65.9 per cent in December 1996 to 57.4 per cent in June 1999), while lending to the other three crisis economies was mostly to the private sector (rising from an average 62.5 per cent in December 1996 to 69.2 per cent in June 1999). The anomalous situation of Korea is probably due to the concentration on the banking market and the financial arrangements between the Korean *chaebols*. Lending to the public sector in preference to other industry sectors has also increased

in recent years. In addition, capital inflows through banks were not sensitive to interest rate movements, so banks increased their domestic lending once they had borrowed unhedged from abroad⁹.

International Bond Issues

Recent Trends

International bonds are those issued in Eurobond markets or in foreign domestic bond markets such as in the United States, Japan or the United Kingdom. Details are in Table 4. International bond issues by crisis economies (\$77.7 billion) in 1999 were much smaller than the intermediated finance offered by international banks (\$160.7 billion). However, these markets would compete on the basis of efficiency. The larger intermediated finance market has a higher entry or cost structure that may prevent the Asian crisis economies tapping this market as a debt alternative.

Table 4. **International Bonds Issued by Asia-Pacific Economies**
(\$ billion)

Countries	March 1994	March 1995	March 1996	March 1997	March 1998	March 1999
Australia	42.1	50.1	53.7	88.5	80.4	86.9
China	9.6	13.0	12.0	13.0	14.8	13.9
Hong Kong (China)	10.9	14.7	12.4	17.5	20.1	22.3
India	3.0	3.3	3.7	4.6	5.9	5.7
Indonesia	1.4	3.1	3.9	5.6	5.8	4.5
Japan	279.8	276.6	226.2	188.4	145.5	127.9
Korea	0.0	19.4	23.4	40.6	48.1	48.3
Malaysia	17.7	4.4	5.9	10.1	12.1	12.5
New Zealand	6.5	5.9	5.4	6.3	7.9	7.0
Philippines	0.0	2.0	2.2	6.4	8.0	9.9
Singapore	1.2	1.0	1.2	2.5	3.2	5.7
Chinese Taipei (Taipei, China)	3.3	2.4	2.8	3.8	5.7	6.5
Thailand	0.3	4.0	5.4	9.9	11.5	12.4
Total: Crisis economies	19.4	30.9	38.6	66.2	77.5	77.7
Total: Developed economies	329.6	333.6	286.5	285.7	237.0	227.5
Total: All economies	375.8	399.9	358.2	397.2	369.0	363.5

Source: BIS, *International Banking and Financial Market Developments* (various issues), Table 13 "International Bonds by Nationality".

International bond financing by the crisis economies rose 128 per cent, from \$30.9 billion in 1995 to \$77.7 billion in 1999, with Korea the biggest issuer. The international issues from the crisis economies have mostly focused on bond issues in the US market (termed "Yankee bond" issues) by quasi-government or sovereign borrowers. Though these securities have to be registered¹⁰, reduced issuing and compliance costs and the withdrawal of international banks from the region after the Asian crisis (the drop in lending was 4 per cent in 1999 and 21 per cent in 1998) have encouraged borrowers to bypass national banking systems and move to the direct

security market. Also, while the US SEC discourages sale of Eurobonds to US citizens (the sale and trading of Eurobonds as private placements is allowed), strong investor demand for high–yield domestic issues has encouraged issues from better–rated issuers in the crisis economies.

So while US investors have recently emerged as the largest buyers of crisis economy bonds, US financial intermediaries have historically shown little interest in intermediated bank lending in crisis economies. This apparent anomaly is explained by the sanctity of the US financial system and the faith investors have in the US legal process. The US financial system is better able to resolve information asymmetries between crisis economy borrowers and potential investors, while offering better investor protection than domestic financial intermediaries do.

Despite the non–investment grade status of most of these domestic US issues, investors are reassured by their quasi–governmental or sovereign status. Few non–government or quasi–government issuers have tapped these markets because they have little or no issuing history and lack the marketability of a sovereign issue. The interest rate spreads of unknown or new issuers demanded by the markets has also been wider than those demanded by similarly rated European or US corporations in recent years and may have discouraged borrowers.

The attraction of the Yankee market is its availability to non–investment grade issuers (credit rating lower than BBB) representing sovereign issuers in the crisis economies. Emerging market issuers cannot usually tap the international Eurobond market¹¹, which prefers investment grade issues and is also largely a US denominated market¹². But for the borrower, the degree of substitutability of these different markets is ultimately linked to cost. There were significant increases in offshore issues before 1995 largely because of the decline in spreads of issues over US Treasuries of similar maturity. After the Asian crisis, spreads increased, discouraging international issues in favour of domestic issues and loans from international banks¹³.

Table 5. Comparison of International Bank Lending and International Debt Securities of Crisis Economies, 1996–99

Country	Change in levels of bank lending (December 1996 to June 1999)	Change in levels of international bond issues (March 1996 to March 1999)
Indonesia	–11.7	+3.1
Korea	–36.5	+48.3
Malaysia	–3.6	–5.2
Thailand	–35.5	+12.1

Implications

The replacement of intermediated finance with international bond issues suggests a degree of substitutability between these two kinds of financing. But the prevalence of issues by quasi–government or sovereign issuers reflects reluctance by international investors to hold non–sovereign paper, suggesting that substitute forms of financing are only available to high–quality issuers. This reluctance limits the amount of debt

that can be put on the international bond markets. Public sectors issuers may crowd out corporate issuers or be unable, rather than unwilling to price corporate debt since the infrastructure (such as benchmark yield curves) is not available.

While bond issues and intermediated finance may be substitutes for some risk classes of borrower, Table 5 (comparing changes in international bank lending and international bond issues after the Asian crisis) shows increases in international bond issues have not really made up for cuts in international bank lending to Indonesia, Malaysia and Thailand. Only Korea has successfully tapped international bond markets for extra funding. Each country's experience has been different, but the regional reduction in international lending is part of a much bigger pull-out of private sector funds from the region. The liquidity aspect of the Asian crisis can be tackled by increasing long-term financing options by developing more viable domestic bond markets in crisis economies and improving access to international bond markets for these borrowers.

Traditional Neglect of Domestic Bond Markets¹⁴

The traditional neglect of domestic corporate bonds by the industrial sector in the crisis economies is largely due to: *i*) Cheaper financing through overseas bank borrowing; *ii*) Bank-dominated domestic financial systems; *iii*) Agency problems arising from family-owned corporations.

Cheaper Financing Through Overseas Bank Borrowing

Most of the crisis economies have long ago taken steps to liberalise their financial sectors and before the crisis their domestic financial markets were almost fully open to foreign capital. In Indonesia, Korea and Thailand, domestic banks, finance companies, merchant banks and large conglomerates could borrow foreign funds with few restrictions. This was sometimes encouraged by the financial authorities to fill quickly the domestic financing gap. So domestic financial institutions and industrial corporations borrowed huge amounts of foreign funds, usually of short maturity (which could be extended or rolled over). These borrowings were spurred by a big difference between domestic and foreign interest rates and a rigid foreign exchange policy that boosted local currencies¹⁵.

Table 6. Comparisons of Domestic and Overseas Interest Rates^a
(annual percentage, period average)

	1993	1994	1995	1996	1997	1998	October 1999
Indonesia	20.6	17.8	18.9	19.2	21.8	32.2	22.8
Korea	8.6	8.5	9.0	8.8	11.9	15.3	9.0
Malaysia	9.1	7.6	7.6	8.9	9.5	10.6	6.8
Thailand	11.2	10.9	13.3	13.4	13.7	14.4	8.3
LIBOR ^b (\$)	3.64	5.59	6.24	5.78	6.08	5.53	5.7(Jul)

a. Commercial bank lending rates, unless otherwise stated.

b. For one year

Sources: ADB, *Key Indicators*, and IMF, *International Financial Statistics*, various issues.

Before the crisis, domestic lending rates were much higher in Indonesia and Thailand than the one-year LIBOR rates on US dollar lending, while the gap between domestic and overseas rates was modest in Korea and Malaysia. The gap between the two rates in the early 1990s was 12–16 annual percentage points in Indonesia, and 5–8 annual percentage points in Thailand. In Korea and Malaysia, annual domestic rates were usually between two and five times higher than LIBOR rates. So with the misalignment of exchange rates, domestic banks and corporations — as rational economic entities — must have made great efforts to borrow on international financial markets.

Domestic interest rates in the crisis economies before the crisis were much higher than international rates. Table 6 shows interest rate trends in the crisis economies as well as international financial markets.

Table 7 shows the purchasing power parity (PPP) indexes in the 1990s in the crisis economies. The indexes were calculated so a currency's nominal exchange rate against the US dollar (1990 = 100) is compared with a relative consumer price index (CPI), which is the local CPI divided by the US CPI. If it is 100, the currency's value against the US dollar, as of 1990, is unchanged. If it is lower (higher) than 100, the currency is overvalued (undervalued) compared to the 1990 level. It is a simplified PPP index because only the US CPI, not that of all major trading partners, is used. However, it could indicate the real value of each currency in the 1990s, before the crisis. The table suggests all countries' currencies had been overvalued in the 1990s, especially those of Indonesia, Malaysia and Thailand.

Combining the interest rate gap and the PPP index shows foreign borrowing was profitable in the crisis countries before the crisis. International interest rates were always cheaper than local rates, encouraging domestic firms and financial institutions to borrow from abroad. This borrowing has also been protected by the exchange rate regime that has continued overvaluing the local currency, making foreign loans even cheaper.

Table 7. Purchasing Power Parity of Crisis Economies' Currencies
(1990 = 100)

	1990	1991	1992	1993	1994	1995	1996
<i>Indonesia</i>							
Relative price (I)	100	104.9	109.6	119.7	128.0	135.7	140.6
Exchange rate(II)	100	105.8	110.2	113.3	117.3	122.0	127.1
PPP(II/I)	100	100.9	100.5	94.6	91.6	89.9	90.4
<i>Korea</i>							
Relative price (I)	100	104.9	108.1	110.0	113.9	115.8	118.1
Exchange rate(II)	100	103.6	110.3	113.4	113.5	109.0	113.7
PPP (II/I)	100	98.8	102.0	103.1	99.6	94.1	96.3
<i>Malaysia</i>							
Relative price (I)	100	100.2	101.8	102.4	103.5	106.0	106.7
Exchange rate(II)	100	101.7	94.2	95.2	97.0	92.6	93.0
PPP(II/I)	100	101.5	92.5	93.0	93.7	87.4	87.2
<i>Thailand</i>							
Relative price (I)	100	101.4	102.4	102.8	105.4	108.4	111.5
Exchange rate(II)	100	101.4	101.8	101.0	99.6	100.1	101.5
PPP(II/I)	100	100	99.4	98.2	94.5	92.3	91.0

Sources: IMF, *International Financial Statistics*, Yearbook 1998.

Bank-centred Domestic Financial Systems

These countries have given higher priority to the banking sector than the capital market. Capital market development has not been neglected, but banks were treated as the most important financial sector. In seeking a high growth strategy since the early 1960s, banks were the main suppliers of funding from domestic and foreign markets. Capital markets remained underdeveloped, preventing them from financing industrial projects through diversified sources. As noted, corporate bond markets are lagging behind in all these countries and Korea has made significant progress only in recent years, after the crisis.

Bank-centred financial systems have also encouraged high economic growth in many developing economies because they more effectively monitor financial environments that have asymmetric information because of obscure financial data.

So banks may be better able to ration scarce resources to priority sectors. However, these decisions can be influenced by outside parties, as shown by the decision by four Indonesian state banks to lend \$2.7 billion to President Suharto's son Bambang Trihatmodjo to build the Chandra Asri petrochemicals plant. Or they may be swayed by family members in founder-family owned banks and corporations who exert influence so that resources are not allocated in the most effective way. This reflects poor governance structures that fail to tackle the underlying legal problems¹⁶.

Agency Problems arising from Family-owned Corporations

The choice of financing follows a “pecking order” (Myers, 1984), starting with internal funding sources (such as retained earnings), then external sources in the form of additional debt or equity in both private and public markets. Agency concerns and problems arising from usually financial-based asymmetries of information, and differences in legal protection (both the laws themselves and the extent they are enforced) (La Porta *et al.*, 2000) seem to dictate the choice between various combinations of debt and equity instruments.

Many emerging countries lack the financial and technical infrastructure for proper public security markets. Traditional company financing is largely through banks that are expected to assume a key corporate governance role as part of intermediation. Firms prefer relationship-based bank borrowing to issuing corporate bonds, which requires disclosing important corporate information to the public. The governance role may be influenced by the lending institutions being owned by entrepreneurs and their families, who may also occupy top management positions, or by cross-ownership between financial intermediaries and corporate borrowers. A recent study¹⁷ showed that in 1996 the share of a country’s top 10 families in total market capitalisation was 57.7 per cent in Indonesia, 52.5 per cent in Thailand, 46.2 per cent in the Philippines, 38.4 per cent in Korea, and 28.3 per cent in Malaysia. In Korea, even when the formal share of ownership is low, control can still be exercised through member companies that own stocks. “Despite high debt, the bank-led governance system (BLS) did not come into play,” says another study¹⁸.

The ownership structures of banks and other financial intermediaries and large private firms in the crisis economies are examples of the “family-state model”, where either a small group of founding families or a pervasive state plays a big role¹⁹. These structures range from the nominally privatised and largely state-owned Korean banks (with non-bank intermediaries generally privately-owned) to the largely family-owned banks of Malaysia (which directly control many of the non-bank intermediaries)²⁰.

Apart from the Korean nationwide banks, domestic financial institutions in the other crisis economies are generally small by world standards so the contagion effects of imprudent lending to local firms can be more acute. There is also pressure from the government (as in Malaysia) for specific intermediaries to consolidate to gain scope and scale efficiencies while retaining a local character, since the banks play an important part in understanding the close ties between family, kin and the community. Local banks are required to solve any problems of asymmetric information between firm borrowers and funding sources arising from poor disclosure and accounting.

As well as concerns over equity dilution, the capital structure choices of firms (financial and non-financial) may also be made so as to maintain the information asymmetries between family owners, as well as the well-documented such asymmetries between owners and managers. Development economists are currently arguing about the expected behaviour of family members in family-owned firms when additional funding is needed for expansion and where there is asymmetry of information among

them. This is an extension of popular theories that family links are an obstacle to economic development and suggests that family members, in firms where there is a significant founding–family presence, may be reluctant to provide additional savings for new investment because it means revealing information about individual wealth to other family members. The family members not directly involved with the firm may then try to get a free ride on the efforts of their wealthier kin. Firm managers may be able to avoid this conflict and borrow directly from financial intermediaries, so avoiding equity dilution (if new non–family equity is brought in) or equity readjustment within family groups.

Policies Needed for Corporate Bond Market Development

Viable corporate bond²¹ markets require persistent long–term efforts to deal with both demand and supply side obstacles as well as infrastructure problems. While banks account for up to 80 per cent of financial assets in Asia, they have less than 25 per cent in the United States. This suggests that capital markets, including bond markets, have a promising future in Asia if proper policies are pursued. Vigorous government efforts should focus on the following issues:

Importance of Treasury Paper Market

A well–functioning government bond market can help foster corporate bond markets. Its risk–free yield curve facilitates private issues. It would be unrealistic for a country to try to develop a corporate bond market and derivative markets without a satisfactory treasury paper market. In Asia, the Australian and Hong Kong (China) governments have pledged to preserve a liquid treasury paper market although there is no immediate funding need from the market. The Australian government paper market currently has a yield curve of 12–13 year maturity, while the Hong Kong (China) treasury paper market provides a 10–year long yield curve.

These are the lessons for developing countries:

- To develop a meaningful government bond market, a clear and balanced long–term debt strategy and sound operational capacity are needed.
- Three courses of action will minimise the cost of government debt securities. First, tap the pool of global capital by opening the government debt market to foreign investors; second, there should be clear division of responsibility between government debt management and monetary policy; and third, primary and secondary market infrastructures should be adequate.
- Regular substantive communication and dialogue with markets on debt management goals and strategies is essential. The rationale for debt management operations should be clear and operations reasonably predictable. When–issued trading is recommended to minimise price and quantity uncertainties.

- Too many different types of sovereign bonds are not desirable and simplicity is better.
- There is broad consensus that a benchmark yield curve of at least 10 years is meaningful.
- Choosing primary issue arrangements should take into account the development stage of the government bond market. The open auction system is usually preferable, while smaller and less liquid markets may benefit from a dealer panel arrangement. A primary dealer system is essential to ensure market competition among participating dealers, efficiently distribute government securities and increase liquidity of the securities.
- A captive or obligatory investor arrangement, such as required holding of fixed proportions of financial institutions' assets in the form of government securities, is not desirable. In Australia, one result of the captive arrangement was only a very limited secondary market in government securities.
- Markets need a steady supply of new securities to sustain liquidity. Secondary market liquidity should be guaranteed by official policy.
- The uniform-price, sealed-bid auction is recommended.
- A coupon stripping, which splits bond income streams into coupon interest and principal repayment is desirable.
- Reliable real-time clearing and settlement arrangements are equally critical to efficient operations.
- It is important to have regulations that provide legal certainty and a level playing field, and also remain responsive to the market's changing demands.
- Government bonds must be attractive to investors.
- A single regional central securities depository (CSD) should be set up to perform safekeeping, clearance and settlement functions for all securities available in the region.

Developing Corporate Bond Markets

Supply-side Strategies

Providing suitable conditions: financial liberalisation, maintaining adequate exchange rate policy and regulatory standards

The capital regime in most Asian economies has been substantially liberalised, allowing foreign funds to move between countries. This trend will accelerate as globalisation advances and information technology rapidly develops. Local industries

and financial institutions will increasingly seek funds with the lowest interest rates at home or abroad, so domestic rates and foreign exchange rates will be crucial in determining the real effective price of such funds. If the local currency remains overvalued, other things being equal, foreign borrowing will become attractive and vice-versa. This is what happened in the crisis countries long before the crisis. Financial liberalisation needs to be continued and an adequate exchange rate policy put in place to help local financial markets, including bond markets, to grow and to achieve other macroeconomic goals.

While governments must create suitable conditions for financial liberalisation, central banks are also required to provide strict regulation and enforcement so investor confidence in the financial system is maintained. The independence of the central bank and its successful money policy management are key factors in this, along with the risk management practices of financial firms²². Recent regulatory improvements include:

- Better supervision of finance companies in Thailand;
- Improved asset-quality norms in Korea (where banks take interest on loans one month past due while international practice is three months);
- General agreement that central banks should subscribe to the Special Data Dissemination Standard (SDDS)²³ that stipulates what data can be published and when. (The Bank of Korea and the Korean Finance Ministry now publish material on a webpage, though the quality and timeliness of data from the Bank of Thailand is poor.)

Public sector bonds should not be given privileged treatment such as lower prices or rates. Market forces should determine prices of all bonds. In some developing countries, governments issue a large number of bonds to finance special projects and budget deficits at lower prices by forcing financial institutions to purchase them or by giving investors tax incentives. This distorts the overall bond market, while discouraging the corporate bond market.

Reforming Corporate Governance

Good corporate governance boosts protection of all stakeholders, including holders of corporate bonds. Many Asian corporations have been blamed for weak and unsatisfactory performance where corruption and transparency in financial transactions are concerned, along with ownership structure and accounting not up to international standards. This has sapped investor confidence in the financial documents of the firms and thus in the bonds issued by them.

Before the crisis, mutual payment guarantee arrangements were often made in Korea between companies in the group of *chaebol*. Also, *chaebol*-affiliated financial institutions made loans to their associated corporations in a non-transparent way, undermining the credibility of the documents of the firms and financial institutions in

question. Many countries changed their accounting methods haphazardly. While the crisis countries have repaired this situation, reform to adopt the best practices should be expanded to other areas. Investor perceptions of intangibles such as corporate integrity, prevention of asymmetric availability of corporate information and the powers of securities market regulators are a key to the quality of corporate bonds and to capital market dynamism.

Corporate systems differ from country to country, but they can be divided into outsider (market-based) and insider (board-based) models²⁴. The United States and the United Kingdom generally have the first and other countries the second. In the market-based model, widely dispersed investors own and control the company and, if management neglects shareholder value, will sell the shares. In the board-based model, board members represent the interests of identifiable groups and are responsible for disciplining management. Asian countries are moving from a board-based to a market-based model. However, the market-based model requires adequate disclosure, a good flow of information, rigorous trading rules and well-developed investor protection systems²⁵.

Demand-Side Strategies

Strengthening the Role of Institutional Investors and Mutual Funds

Institutional investors (pension funds and insurance companies) and mutual funds are especially important in developing countries for expanding the investor base because individual investors there are not very familiar with bond markets and tend to shun corporate bonds. In economies that have managed to develop bond markets, such as Korea and Malaysia, institutional investors and mutual funds are important in buying and selling bonds and using them to create attractive asset portfolios.

In Korea, setting up mutual funds was substantially deregulated in 1998 and tax breaks for foreigners investing in domestic fixed income securities is being considered. In Malaysia, tax exemptions on bond market gains apply to individual investors but not institutions. The capacity of institutional investors still very much needs to be boosted by increasing pension funds (such as those of corporate and banking sector employees) and mutual funds, and by broadening funding sources and improving fund management skills. Consistency in the tax exemptions for investors and encouraging bond purchases by other financial institutions²⁶ will also help this market grow.

In Indonesia, only institutions, banks and the newly emerging mutual funds buy domestic bonds (including government bonds). Before the crisis, foreign holdings of rupiah bonds accounted for 10–20 per cent of new bond issues, especially very liquid ones with good credit standing such as PLN (the state-owned electricity company) and BTN (a state bank). Pension fund investments comprised about 50–55 per cent time deposits, 10–15 per cent stocks, 10–15 per cent bonds and promissory notes and

15–30 per cent miscellaneous, including real estate. Insurance companies opted for about 45–50 per cent time deposits, 4–6 per cent stocks, 12–15 per cent money market instruments (SBI), 8–10 per cent bonds and promissory notes and 19–30 per cent miscellaneous, including real estate. Bond holding by these companies was negligible.

The mutual funds appeared in 1996, grew fast and in 1997, before the crisis, had investment portfolio assets of 7.2 trillion rupiah — 25 per cent money market instruments, 15 per cent equities, 50 per cent bonds and promissory notes and the rest cash — which was substantial investment in domestic bonds. Indonesia needs to encourage institutional investors and mutual funds to expand by developing pension funds and mutual funds, improving human resources and broadening funding sources.

International investors have also been drawn to Asian bonds by broader benchmark indexes, which provide risk diversification. JP Morgan has updated its “Emerging Market Bond Index” (EMBI Global) to give greater weight to Asian issuers and now includes three of the crisis economies²⁷.

Robust legislation defining and enforcing financial security is important to encourage investors. With new bankruptcy laws, Thailand hopes to encourage bank lending to businesses by ensuring banks can recover future bad debts. But Senate amendments have doubled the minimum level proposed (debts need to exceed one million bhat for individual bankruptcy, and two million for corporations) and allow bankruptcy status to be lifted after three years instead of the proposed ten. These developments seem to have boosted secondary market bond turnover and more than half of total turnover is now in corporate bonds²⁸.

Private placement

Privately placing corporate bonds has advantages in developing countries, where the overall bond market is small. They are notably exempt from registration with the SEC because issues do not involve a public offering. Corporations and investment banks can find potential buyers of bonds on their own and decide on issuing conditions without involving official procedures. This is not unlike bank loans.

In the United States, even the trading of privately placed corporate bonds has been allowed since 1990 with adoption of SEC Rule 144A. There is now a private placement market for 144A bonds and the traditional one that includes non-144A bonds. Rule 144A placement is underwritten by investment banks on a commitment basis, as with publicly-offered securities. Table 8 shows the importance of private bond placement as a source of corporate financing:

From the 1970s to the early 1990s, privately placed corporate bonds accounted for a sizeable 40 per cent of all corporate bonds issued in the United States. This share rose between 1986 and 1991, partly because of adoption of Rule 144A.

Table 8. Issues of Publicly-offered and Privately Placed Bonds by Non-financial Corporations in the United States, 1975-91
(\$ billion, annual rate)

Type of bonds	1975-80	1981-85	1986-91
Public	21.0 (58.8)	35.6 (64.3)	87.6 (57.4)
Private	14.7 (41.2)	19.8 (35.7)	64.8 (42.6)
Total	35.7 (100.0)	55.4 (100.)	152.4 (100.0)

Source: Frank Fabozzi and Franco Modigliani (1996), *Capital Markets* (second edition), Prentice Hall, p. 530.

Developing Infrastructure

Credit rating reliability

Each country has a few domestic credit rating agencies that offer free rating services or charge a fee. In Indonesia, PEFINDO was set up in 1994 by the Ministry of Finance and Bank of Indonesia in partnership with Standard & Poor's (S&P's). Another agency, Kasnik, Duff and Phelps, was licensed in 1997 but is not operating. PEFINDO has rated some 200 companies involving about 250 debt securities (including CP). Requirements for rating listed bonds and CP have increased demand for the services. PEFINDO's partnership helped gain international credibility. In Korea, three local agencies operate — Korea Management Consulting and Credit Rating Corporation (KMCRC), Korea Investors' Service (KIS) and the National Information and Credit Evaluation Corporation (NICE). All publicly-issued non-guaranteed bonds have to be rated by at least two credit rating agencies and only firms scoring A or higher may issue them²⁹. The predominance of guaranteed bonds in Korea, which do not need a credit rating, has restricted the growth of rating services however.

Local rating agencies are not very reliable owing to lack of rating skills, limited information sources and inadequate accounting by firms. Partnership with internationally credible agencies such as Standard & Poor's or Moody's will boost reliability. Small countries would do better to use these agencies rather than setting up their own because of the large fixed operating costs involved.

Creating a Benchmark Yield Curve

Benchmark yield curves are essential for pricing non-government securities since investors traditionally do so based on a spread over the equivalent risk-free or government security with the same maturity. Some Asian governments — Australia, Hong Kong (China) and Singapore — have recognised this and pledged to maintain the benchmark curve infrastructure despite absence of a funding need. These curves also help the growth of derivatives markets and give financial market participants more ability to handle risk transformation. The yield for a corporate bond maturity is usually interpolated based on spread over a stripped benchmark yield curve derived from a series of on-the-run government bullet bonds.

Except in Hong Kong (China) and Malaysia, mid-term and long-term benchmark government bonds have not existed in Asian developing economies. There are only short-term ones (including central bank issues) or quasi benchmark bonds like guaranteed corporate bonds in Korea. But nothing can beat the low risk of government bonds. The fast-growing Asian developing countries have maintained fiscal balances or surpluses which discouraged issue of government bonds to finance current expenditure, apart from some one-off issues. Fear of accumulating government debts has fed opposition to benchmark treasury bonds.

Hong Kong (China), however, which has managed to minimise the effects of the Asian crisis, has consistently tried, even before the crisis, to develop exchange fund bills (EFBs) and exchange fund notes (EFNs) (exchange fund paper, or EFP) and has notably strengthened them since the crisis. As Hong Kong has usually had a fiscal surplus, the main aim of the EFP programme was to encourage growth of the local debt market by increasing the supply of high quality bonds and creating a reliable benchmark yield curve for dollar debt instruments. The EFP programme was introduced in March 1990 with the issue of 91-day bills and expanded in subsequent years. The 182 and 362-day bills were launched in October 1990 and February 1991, followed by notes for two years (May 1993), three years (October 1993), five years (September 1994), seven years (November 1995) and 10 years (October 1996). EFP has been very well received by the market and gives a reliable Hong Kong dollar benchmark yield thanks to regular EFP issues of varying maturity, thus developing an effective market-making mechanism.

Hong Kong may be a good example for developing a benchmark government bond market in developing economies, although it has the advantage of being in much better financial and economic shape. Korea and Thailand also recently started a benchmark government bond programme. The benefits of a benchmark bond market far outweigh the cost of government debts, which shows the need to create a government bond-based yield curve. Benchmark government bonds must be highly liquid through offering enough bonds across a range of maturities. This enables correct interpolation of yields for non-benchmark maturities and helps prevent distortion of the yield curve through illiquidity induced volatility.

Thailand has recently tackled these problems, making a benchmark yield curve a priority in its bond market reform package. The existence of many government bonds, through financing fiscal deficits and the restructuring and recapitalisation of financial intermediaries, has made it possible to establish two market yield curves — one based on same-day trading and provided by the Thai Bond Dealing Centre and another based on settlement date yields provided on the Bank of Thailand website³⁰.

Regulatory Framework³¹

Regulatory authorities should try hard to avoid discouraging market innovation, but sound and effective supervision for a bond market, intermediaries, institutional investors and other market participants is essential for investor protection and good

business practices that reduce risks. This requires clear market rules, great transparency and rigorous standards, as well as internal and external surveillance to ensure compliance. The government's role as a debt manager — mainly the separation of debt management and other Treasury functions — also needs to be considered.

Transparency and clarity in the functions and aims of regulatory authorities are vital to their effective performance and to maintaining public confidence, as well as to avoiding regulatory gaps and duplications. So there must be clear legal definition of supervisory actions, close coordination between regulators, and well-defined rules for market participants (diversity of bank and non-bank participants) and financial instruments.

Settlement Systems

The cost of trading and issuing securities can be cut by economies of scale and scope. Better technology and Asia-wide settlement systems would make domestic bond markets more viable. Uniform procedures would be a first step. Policies in some countries show the way forward. In Thailand, the real-time delivery versus payment project (DVP) started in April 1998 should be completed by the third quarter of 2000. A real time bond price quotation system to news wire services has been set up to improve information flows and pricing mechanisms. Thailand also has a “master plan” guideline for policy implementation and coordination between the Thai Bond Dealing Centre, Securities and Exchange Commission and the Ministry of Finance.

Issues for Micro and Small Enterprise Financing

A corporate bond market is relevant to MLE industrial financing, but not to MSEs, which in developing countries have no access to a bond market. MSEs do not usually meet the requirements for issuing debt securities in bond markets because of their small capital, fluctuating profits and resultant low credit-worthiness. They are found in every rural and urban part of a country, engaged in small and cottage manufacturing, agro-industries, trading and other activities. They have suffered most from the Asian financial crisis and have little access to formal credit, so they need urgent attention and financial help.

Strengthening the financial markets for these firms will give a big boost to job creation and poverty reduction. Although they only account for about a third of manufacturing and service industry output in low-income Asian countries, they provide two-thirds of the jobs. They need a different kind of financial market from those serving the MLEs.

An MSE needs both short and medium-term funds. Short-term funds are for wages, maintaining stocks and inventories and other operational expenses. In developed countries, these are usually provided by banks, but in developing countries, commercial banks cannot or will not do this. Medium-term funds for plant and equipment are also rarely available because of low productivity and lack of collateral.

So MSE financing cannot be totally left to the private sector. The government should help set up financial institutions tailored to MSE needs by providing incentives, including tax breaks, as well as loan guarantee institutions to deal with the lack of collateral. Experience shows well supervised, commercially based financial institutions are best for developing countries.

Conclusions

Recovering Asian crisis countries should diversify industrial financing to boost resources for development and speed up growth of the financial sector. Such financing in these countries has long been overly bank-based, with the dangers of an extremely inflexible financing mechanism, predominance of short-term financing and vulnerability to external shocks. Bank disintermediation has already appeared, with very guarded lending by commercial banks for Asian developing countries. Bond markets should be given priority in the search for new funding. They have hitherto been neglected because of the cheaper cost of borrowing overseas, bank-dominated domestic finance and problems arising from family-owned firms.

Suggestions for developing bond markets in the crisis countries, covering supply and demand side policies and infrastructure development issues, include: *i*) providing the right conditions; *ii*) reforming corporate governance; *iii*) setting up reliable credit ratings; *iv*) creating a benchmark yield curve; *v*) strengthening the role of institutional investors and mutual funds; *vi*) expanding private placement; *vii*) setting up a real time delivery system; and *viii*) strengthening the regulatory system.

All this will take a long time to implement properly, with careful measures as part of a well-designed mid and long-term bond market development strategy. More bonds should also be placed in the international market to ensure funding diversity and lower costs.

The financial markets should also be improved for micro and small enterprises (MSEs) which are always in a weak position funding-wise. In most low-income Asian developing countries, MSEs account for two-thirds of total employment and a third of value added, and so are a key part of national economies. Commercial-based financial institutions should be encouraged to provide finance to MSEs with careful regulation.

Notes

1. Ambiguities often occur over measurement and definition of an MLE and an MSE. Number of employees, value of output, and value of assets are used to differentiate them. Here we define an MSE as having up to and including 49 employees and an MLE as having 50 or more.
2. Indonesia, Korea, Malaysia, and Thailand — the worst-hit countries.
3. See Walter (1993) for a discussion of the different ways of financial contracting and a stylised model of the financial intermediation process.
4. The best international practice, and some banking laws, suggest that a commercial bank entitled to receive only short-term deposits up to one year should try to match the average maturities of risk-sensitive assets and liabilities. Regulators usually require this maturity mismatch to be within a specific band determined by the bank's size, its experience and the infrastructure available to manage and measure risk.
5. Between 1996 and 1999, levels of international bank lending to Asian developing countries fell significantly.
6. International portfolio diversification and yield-seeking by globalised investors have increased the opportunity cost of bank deposits and contributed to bank disintermediation and broadening of securities markets in many advanced countries. The total market value of assets managed by US mutual funds (about \$5 trillion) and invested in securities markets exceeds the total value of US bank deposits. Japanese and European financial markets are following US trends, though more slowly (see Schinasi and Todd-Smith, December 1998).
7. Batten and Kim (2000).
8. Given the big differences in historical background and current context of financial systems, it is unwise to compare these countries directly with the United States. However, because the United States has the most advanced capital market, it can serve as a comparator country in discussing bond market development.
9. Kawai and Takayasu (1998) make this point about Thailand, though it may apply to other crisis economies.
10. Domestic bond issues in the United States must be registered with the Securities and Exchange Commission (SEC) under the 1933 US Securities Act.

11. Bond credit rating agencies divide corporate bond issuers into nine major categories according to perceived credit quality. These include issuers of investment grade bonds (AAA, AA, A and BBB) and non-investment grades (BB, B, CCC, CC and C). Bonds with ratings below C are bonds in default or of bankrupts. The two major agencies use slightly different notation to refer to equivalent credit risk categories. Standard & Poor's use upper-case capitals (AAA), while Moody's Investor Services use an upper case first character with remaining characters lower case (Aaa). Here we use the Standard & Poor notation.
12. The US dollar is worldwide the most common currency of Eurobond issue with \$1 673.4 billion, followed by the Japanese yen (\$407.1 billion), German deutsche mark (\$369.4 billion), pound sterling (\$308.3 billion), French franc (\$191.3 billion), Swiss franc (\$141.5 billion), Italian lire (\$117.9 billion), Dutch guilder (\$105.3 billion), the euro (\$99.3 billion) and the Luxembourg franc, with \$37.8 billion in outstandings (BIS, 1998 Table 13B).
13. See Chart 5, Kamin and von Kleist (1999: 17) for graphical evidence of the decline in spreads (1991–97). Lenders favoured Asian issues (spreads on Latin American issues which were similar to Asian ones were 39 per cent higher). This may be because Latin American and Eastern European economies were more volatile than Asian economies (K. and vK: 18) and because of greater supply since Latin American countries issue more bonds than Asian countries (Eichengreen and Mody, 1997). But K. and vK. note that Asia, while not issuing bonds, tends to take out more loans. This suggests economic stability is the key to determining spreads.
14. Batten and Kim (2000)
15. Expectation that the local currency will not depreciate more than the difference in interest rate between the two countries will encourage unhedged foreign currency borrowing. International parity relationships predict that over time interest rate differentials equal the actual depreciation or appreciation of floating-rate currencies.
16. Jensen and Meckling (1976) originally investigated agency problems.
17. Classen *et al.* (1999).
18. Khan (1999).
19. See Nestor and Thompson's (1999) discussion of different systems of corporate governance, which vary from the outsider model (in the United States and the United Kingdom), to the insider model, of which the family/state model is a sub-category.
20. Casserley and Gibb (1999: exhibit 11.3) estimate significant family ownership of the 15 largest banks in Thailand (27 per cent of stock), Indonesia (47 per cent of stock), Malaysia (59 per cent of stock) and the Philippines (60 per cent of stock) at the end of 1997.
21. In medium to long-term industrial financing, corporate bonds and medium-term notes (MTN) may be comparable. However, an MTN is different because it is issued directly to investors without using an intermediary. There is also no secondary market for MTNs.
22. Note the report of the Institute of International Finance Task Force on Risk Assessment (January 2000) detailing best risk management practice for the private sector.

23. Note that the Institute of International Finance's Report of the Working Group on Emerging Markets Finance (March 1999) also recommended this information include the off-balance sheet positions of reporting institutions. See this report for details of data transparency and disclosure.
24. Thompson (1999).
25. Policies to enhance governance structures in crisis economies have been analysed in various ADB studies. Also see La Porta *et al.* (2000) discussion of agency problems and legal regimes.
26. The way Indonesian banks hold their reserves is specified by the Banking and Financial Institutions Act. Procedures could be established to facilitate the holding of bonds as bank reserves.
27. EMBI Global has a weighting of Korea 7.5 per cent, Philippines 2.9 per cent and the new additions of Malaysia 2.5 per cent, China 1.6 per cent and Thailand 0.4 per cent (Source: *Asiamoney*, September 1999). Other examples include the Strategic Income Fund of Chase Manhattan.
28. *The Nation* (11 January 2000) reported that in December 1999 BHT18.6 billion out of BHT35.4 billion was attributable to corporate bond turnover.
29. The rating categories of these agencies are similar to S&P's.
30. *Op. cit.* Meecharoen (1999).
31. APEC Collaborative Initiative on Development of Domestic Bond Markets (August 1999), Guidelines to Facilitate the Development of Domestic Bond Markets in APEC Member Economies.

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