BOND MARKETS IN THE PACIFIC RIM: DEVELOPMENT, MARKET STRUCTURE AND RELEVANT ISSUES IN FIXED-INCOME SECURITIES MARKETS

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This paper reviews the development of fixed-income securities markets in the Pacific rim economies following the onset of the Asian currency crisis in 1997 through to the end of 2000. It provides a background for comparing the market structure in the different capital markets within the region and discusses the issues pertinent to capital market development. The lack of domestic capital markets with sufficient depth means that significant movements of capital into or out of certain countries will lead to distortions in the cost of capital and this will affect long-term economic development. Owing to the lack of transparency in their corporate sectors, Asian capital markets, and in particular bond markets, generally display significant systemic risk in the form of country risk for foreign investors. Overall, debt markets in the Asian and Pacific region are much smaller than equity markets and markets and regulatory systems are fragmented. There is a need, therefore, to build stronger legal and regulatory frameworks, to improve investor protection, to encourage adequate disclosure of information and to foster best practices by listed companies and financial intermediaries. The paper identifies the factors that will influence future bond market development.

Since the onset of the Asian currency crisis in 1997, economic performance in the Asian and Pacific region has shown a drastic change, resulting in general in a strong rebound from the sharp slowdown caused by the crisis. Based on GDP growth figures, 1998 was the worst year, with Indonesia and Thailand suffering the most intense contractions in their economies (-13.7 per cent and -8 per cent respectively). By 2000, all economies in the region had returned to positive economic growth. Indonesia and Thailand reported +2.0 per cent and +2.5 per cent GDP growth in 2000, respectively. Other Asian and Pacific economies showed even higher GDP growth rates.

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The upswing in economic activities was also reflected in the performance of the stock markets in these economies. Table 1 provides statistics of the size of the respective stock markets and table 2 shows the level of stock market trading activities in these markets. In general, almost all the markets in the region, including those that were most severely affected by the Asian currency crisis, had recovered by end-2000 to levels that exceeded their levels in 1990. Table 1 shows that in several Asian economies the stock market has played a significantly more important role in the economy. For example, the size of the Hong Kong, China, stock market as a percentage of the local GDP during the period 1990 through 2000 increased from 112 per cent to 383 per cent, showing a more than threefold growth. The total stock market in China during the same period increased from 0.5 per cent to 33 per cent, showing a growth of more than 66 times since 1990. Other economies with significant stock market capitalizations include Malaysia, New Zealand, the Philippines, Singapore and Thailand. In general, an active stock market provides an important source of capital for financing development activities in these economies.

Table 1. Stock market capitalization

Country/area	*Listed companies*		*Millions of US dollars*		*Percentage of GDP*	
	1990	*2000*	*1990*	*2000*	*1990*	*2000*
Bangladesh	134	221	321	1 186	1.1	1.9
China	14	1 086	2 028	580 991	0.5	33.4
Hong Kong, China	284	695	83 397	609 090	111.5	383.2
India	2 435	5 937	38 567	148 064	12.2	41.3
Indonesia	125	290	8 081	26 834	7.1	45.0
Islamic Republic of Iran	97	295	34 282	21 830	0.0	19.7
Japan	2 071	2 470	2 917 679	4 546 937	98.2	104.6
Kazakhstan	0	17	–	2 260	0.0	14.3
Malaysia	282	795	48 611	116 935	110.4	184.0
Mongolia	0	418	–	32	0.0	3.5
Nepal	0	108	–	418	0.0	8.4
New Zealand	171	114	8 835	28 352	20.5	51.9
Pakistan	487	762	2 850	6 581	7.1	12.0
Philippines	153	230	5 927	51 554	13.4	62.8
Republic of Korea	669	704	110 594	148 649	43.8	75.8
Russian Federation	13	249	244	38 922	0.0	18.0
Singapore	150	355	34 308	198 407	93.6	233.6
Sri Lanka	175	239	917	1 074	11.4	9.9
Thailand	214	381	23 896	29 489	28.0	46.9
Turkey	110	315	19 065	69 659	12.6	60.7

Source: *World Development Indicators* 2001, International Finance Corporation, World Bank.

However, not all local markets performed, or benefited, equally well from the economic recovery. For example, the relative sizes of the stock markets as a percentage of local GDP in Japan and the Republic of Korea actually fell over the period 1999 to 2000. In the case of Japan, 1990 was the year that asset prices reached a peak and is generally described as the end of the Japanese stock market bubble. The Japanese stock market has remained fairly weak since the decline that began in 1990. In the case of the Republic of Korea, the stock market was very significant prior to the crisis. However, since 1997, stock market volatility has increased as the Republic of Korea's corporate environment is undergoing a phase of consolidation and restructuring.

Table 2 shows that stock market trading activities declined in Thailand and Indonesia. As illustrated by the turnover ratio (i.e., the ratio of the value of stocks traded to the total capitalization of all stocks outstanding), stock trading in Thailand declined from 92.6 per cent in 1990 to 53.2 per cent in 2000. The turnover ratio for

Table 2. Stock market trading volume

Country/area	*Value traded (percentage of GDP)*		*Turnover ratio*[a]	
	1990	*2000*	*1990*	*2000*
Bangladesh	0.0	1.7	1.5	74.4
China	0.2	38.1	158.9	158.3
Hong Kong, China	46.3	154.1	43.1	51.4
India	6.9	27.3	65.9	133.6
Indonesia	3.5	14.0	75.8	32.9
Islamic Republic of Iran	0.0	2.0	30.4	12.4
Japan	54.0	42.5	43.8	52.5
Kazakhstan	0.0	0.2	0.0	1.2
Malaysia	24.7	61.4	24.6	44.6
Mongolia	0.0	3.8	0.0	7.3
Nepal	0.0	0.5	0.0	6.9
New Zealand	4.5	21.9	17.3	45.0
Pakistan	0.6	36.2	8.7	475.5
Philippines	2.7	25.7	13.6	15.8
Republic of Korea	30.1	180.3	61.3	233.2
Russian Federation	0.0	0.7	0.0	36.9
Singapore	55.4	115.4	0.0	66.9
Sri Lanka	0.5	1.3	5.8	11.0
Thailand	26.8	33.5	92.6	53.2
Turkey	3.9	43.8	42.5	206.2

Source: *World Development Indicators* 2001, International Finance Corporation, World Bank.

[a] Turnover ratio is the value of shares traded as a percentage of capitalization.

Indonesia, on the other hand, dropped significantly from 75.8 per cent in 1990 to 32.9 per cent in 2000. Such a sharp decline is probably due to the withdrawal of international investment funds from Indonesia subsequent to the outbreak of the Asian currency crisis. As at the end of 2000, political uncertainty in Indonesia remained high and foreign funds had not returned to the country.

Paradoxically, despite the recovery in the general economy in the region, many corporations have not been able to enjoy its benefits. Indeed, most corporations in the region have encountered difficulties raising funds. This is derived from three factors: (a) banks and other financial institutions have become more reluctant to approve new loans and/or rolling over existing credit lines; (b) alternative means of financing (e.g., structured financing and syndicated loans) have become almost unavailable; and (c) the weak performance of individually listed companies makes it difficult for them to raise funds through the capital market.

The difficulty in the financing process appears to be a manifestation of information asymmetry in corporations in the region. As a result of the 1997 crisis, there is a general decline in borrowers' credit standing. Given the lack of credible information, lenders and investors tend to focus on corporations with a higher credit rating. The corporations that are unable to prove their creditworthiness suffer from deterioration in funding sources. The more seriously affected firms are listed companies with small capitalization (which suffer from a lack of investor interest), and small and medium enterprises (which suffer from banks' reluctance to provide financing on account of their weaker balance sheets and management).

Against that preamble, section one discusses the current situation of regional credit markets. The second section describes the infrastructure of the financial markets in the region and some recent developments. The third section reviews some recent developments of the domestic debt markets. The fourth section suggests measures to enhance long-term bond market development. The last section gives some policy recommendations for the development of bond market in the region.

I. REGIONAL CREDIT MARKETS

Tables 3 and 4 provide some highlights of the reduced credit to several Asian economies. Table 3 shows international bank lending to a sample of total developing countries and areas (TD) compiled by the Bank of International Settlements, total Asia (TA) and a sample of selected economies affected by the currency crisis (TS) for the period December 1996 through to June 2001. The countries and areas in the sample include Indonesia, the Republic of Korea, Malaysia, Thailand, China, and Taiwan Province of China. Table 3 computes two indicators as benchmarks for the availability of bank credit for Asian countries and areas: (1) ratio of TA to TD as an indicator of overall credit availability in Asia, and (2) ratio of TS to TD as an indicator of credit availability to the select sample.

Table 3. International bank lending to Asian countries and areas

	December 1996	December 1997	June 1998	December 1998	June 1999	December 1999	June 2000	December 2000	June 2001
Total developing countries and areas (TD)	692.6	891.7	860.7	836.6	895.4	877.2	860.5	873.8	828.8
Total Asia (TA)	367.1	378.8	319.6	299.0	287.1	270.9	282.6	275.2	251.3
Indonesia	55.5	58.0	48.4	44.9	45.0	41.7	40.4	40.2	36.9
Malaysia	22.2	27.3	22.8	20.9	18.8	18.6	17.3	20.8	21.6
Republic of Korea	100.0	93.7	71.6	65.5	67.2	64.8	61.1	58.8	52.8
Thailand	70.2	58.5	46.4	41.2	39.4	32.4	29.0	26.6	23.1
China	55.0	62.8	58.7	58.4	72.3	63.5	61.3	58.2	53.8
Taiwan Province of China	22.4	26.0	22.5	20.9	20.4	21.0	19.3	18.1	16.1
Total selected Asian countries and areas (TS)	325.3	326.3	270.4	251.8	263.1	242.0	228.4	222.7	204.3
(TA/TD) per cent	53.0	42.5	37.1	35.7	32.1	30.9	32.8	31.5	30.3
(TS/TD) per cent	47.0	36.6	31.4	30.1	29.4	27.6	26.5	25.5	24.7
Average maturity (selected countries and areas)									
Less than 1 and 1 year (per cent)	63.0	62.8	56.5	55.6	49.3	48.1	49.5	46.4	47.6
Average maturity (total Asian countries and areas)									
Less than 1 and 1 year (per cent)	61.5	60.3	53.0	52.5	51.4	51.0	47.6	44.9	45.9

Source: BIS, *Consolidated International Banking Statistics*, various issues, 1998-2001.

Table 4. Net private capital flows to emerging markets
(billions of US dollars)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Emerging markets									
Total net private capital inflows	116.9	124.3	141.3	189.0	224.2	126.2	45.2	71.5	32.2
Bank loans and other	28.5	-14.0	-49.5	49.5	18.7	-62.1	-127.2	-135.6	-172.1
Net portfolio investment	53.0	81.6	109.9	42.6	85.0	43.3	23.8	53.7	58.3
Net foreign direct investment	35.5	56.7	80.9	96.9	120.4	144.9	148.7	153.4	146.0
Asia									
Total net private capital inflows	15.0	41.5	67.1	74.4	113.9	18.9	-55.4	2.0	-2.6
Bank loans and other	-12.7	-9.5	3.4	6.3	31.2	-48.4	-119.1	-88.4	-97.8
Net portfolio investment	12.9	18.0	18.9	19.7	27.1	7.1	6.5	36.6	45.9
Net foreign direct investment	14.7	33.0	44.7	48.5	55.5	60.2	57.2	53.8	49.3

Source: IMF, *International Capital Markets: Developments, Prospects, and Key Policy Issues*, 2001.

Table 3 shows that both TA/TD and TS/TD declined consistently after the outbreak of the currency crisis in 1997. In 1996, TA/TD was 53 per cent and in June 2001 the indicator was 30 per cent. TS/TD was 47 per cent in 1996 and 24.7 per cent in June 2001. These figures (along with the ratios in each sample period) illustrate several facts concerning credit availability: (a) the currency crisis brought a significant adverse effect on credit availability in Asian economies; (b) the credit squeeze occurred as a general phenomenon in Asia, but was most pronounced for the selected economies; and (c) the credit squeeze came in an increasing magnitude displayed by the consistent decline in the ratios in each consecutive sample period and has not been alleviated even after the general economic recovery in Asia.

Table 3 also shows that short-term credit, a major source of bank credit prior to the currency crisis, decreased in the post-crisis period. In 1996, the percentage of loans 1 year or shorter was 63 per cent in the selected countries and 61.5 per cent in all Asian countries and areas. As of June 2001, this ratio had declined to 47.6 per cent in the select sample and 45.9 per cent in the all-Asia sample. Again, the ratios show a consistent decline throughout the sample period. Table 4 reports net private capital flows to emerging markets and Asia for the period 1992 through to 2000. As seen from table 4, the contributing factor of the fall in net private capital flows to Asia was the dramatic drop in net bank claims, which include syndicated bank lending and trade financing. This can be explained by the continuous cutback in international bank exposures to the Asian markets.

It is worth observing that Asian economies experienced a decline in net foreign direct investment after 1997. This decline is probably due to the reduction in merger and acquisition activities and the lack of privatizations in the region that are occurring in Latin America on a significant scale. After the crisis, banking and corporate restructuring has made a degree of headway and a significant amount of domestic bonds have been issued to capitalize the banking sector and to purchase non-performing loans in the region. But the focus of these activities has been primarily domestic; few foreign investors have been involved. A possible factor in this phenomenon – other than a natural reluctance to take on foreign exchange risk again – is that domestic banks and companies have switched to domestic financing in an attempt to capture the relatively low interest rates available in their own markets.

II. FINANCIAL INFRASTRUCTURE

The term financial infrastructure refers to the environment in which financial transactions are carried out. It involves the legal and regulatory framework, financial institutions and trading instruments and mechanisms. Important components of the financial infrastructure include the trading, clearing and settlement systems. The significance of an efficient and effective trading environment is that the system will enhance investor participation and reduce systemic risk, such as the inability to complete a trade. These benefits translate into higher liquidity levels and reduce capital costs for listed companies. Improvements in local stock markets will also stimulate local investors to hold stocks, thereby reducing their dependence on foreign capital.

An example is the introduction of a continuous net settlement procedure. Such a system allows the clearing house to continually monitor the positions of its members. In the case of Hong Kong, China, three separate clearing houses were in operation (one for the cash stock market and two for derivative markets in futures contracts and options) up to March 2000. During 2000, efforts were made to form a unified clearing and settlement system by merging the three clearing houses. In time, the combining of the clearing houses in the now segmented securities markets will improve operations and market efficiency. Examples of the benefits include the provision of consolidated margin requirements for the cash market (including stocks and bonds) and its derivative products (which would reduce hedging costs and promote better risk management of traders); the implementation of net money settlement procedures; and the provision for uniformity in technical trading requirements such as the collateral accepted and the underlying legal documents.

Advancements in information technology have provided a host of solutions to improving the securities trading process. An example of this kind of improvement is a straight through computerized trading system. Under such a system, investors can input their buy or sell orders from an access point (computer, mobile phone, or other devices). The orders are entered directly to the stock exchange's trading system via the securities broker's trading system. In this way the time needed to complete the transaction and subsequent settlement is significantly shortened. A real-time settlement system can also help reduce the participants' risk. For example, the stock exchange can monitor the status of its clearing members, and each clearing member can impose an in-house risk management system to reduce the company's risk.

The Central Money Markets Unit (CMU) established by the Hong Kong Monetary Authority (HKMA) can demonstrate the impact of an improved infrastructure on bond markets. CMU was set up in 1990 to provide computerized clearing and settlement for the Exchange Fund papers issued by the HKMA. This settlement structure was extended to other debt markets in 1993. At present, CMU provides an international bond trading platform that is linked to Euroclear, Cedel and other international trading platforms so that international investors can take advantage of the infrastructure to participate in the Hong Kong, China debt market.

III. DOMESTIC DEBT MARKETS: EXPERIENCE AND FUTURE PROSPECTS

Asian countries are, by and large, characterized by underdeveloped debt markets. Traditionally, corporations have relied upon bank loans to finance their business activities. When the capital markets began to develop in the 1980s and the 1990s, development in the equity markets (through initial public offerings and secondary market trading on local stock exchanges) became the principal type of capital market activity for local investors. Table 5 provides summary statistics of outstanding amounts of bank loans, government bonds, corporate bonds and equity market capitalization as at December 1998. The table shows that with the exception of the Republic of Korea, debt markets in the region are small compared with the bank loan and equity markets.

Table 5. Outstanding bank loans, bonds and equity markets in South-East Asia, December 1998
(billions of US dollars)

Country	*Bank loans*	*Corporate bonds*	*Equity market*
Indonesia	60.2[a]	1.5	16.2
Malaysia	148.4	5.1	134.4
Republic of Korea	43.5	27.3	30.7
Thailand	108.7	2.6	26.3

Source: Kim, Y.H., 2000. "Policy agenda for bond market development in Asia", *Bond Market Development in Asia,* (OECD, Paris), p. 143.
[a] At the end of 1997.

However, this heavy reliance on bank financing leads to a significant mismatch in the maturity structure of corporations' assets and liabilities. Since a significant number of corporations in the region require funding for long-term investments (such as infrastructure projects), their dependence on short-term bank loans make many corporations, and regional economies as a whole, susceptible to changes in economic sentiment and activity. Prior to the 1997 crisis, financial institutions in the region actively raised foreign exchange debts and swapped these into local currency. Such activities provided a relatively low-cost source of funding for local financial institutions, given the interest rate differential between international and local currencies. However, the availability of external funding was drastically reduced, if not curtailed entirely, when investor confidence in the region weakened during the currency crisis. The shortage of funding caused a chain reaction in the financial markets characterized by plunging exchange rates and rising interest rates. These ultimately brought major hardships for local economies and seriously hindered economic development.

The lack of a high-quality investment market (such as a bond market) in many Asian countries means that local economies are prone to sudden and short-term changes in investor confidence with few opportunities for minimizing portfolio management risks. When confidence in a particular country dissipates, investors (local and foreign) do not possess more secure and relatively stable investment alternatives into which they can shift their assets. Flight to quality leads to the withdrawal of funds from a given country or from the region entirely. The effect of capital flight is especially significant in Asian economies because of the heavy reliance of financial institutions and corporations (such as infrastructure developers) on short-term foreign exchange debts. When foreign funds are withdrawn from a particular economy, banks and corporations are faced with real risks of insolvency even if their asset quality is healthy in the long run.

Thus, the presence of a high quality bond market with sufficient market depth would likely enhance long-term economic development and significantly reduce the probability of future currency crises. However, the current status of capital market development does not favour the development of debt markets. Factors leading to their slow development include poor financial infrastructure, the lack of benchmark bonds, fragmented capital markets and the lack of competitive credit markets in many countries. These factors are discussed in the following paragraphs.

Overview of debt market development

Table 6 provides summary information of the market value of listed bonds in nine Asian countries and areas to the end of 2000. The table shows that Japan has the most active bond market with a market value of US$ 5.08 trillion, representing approximately 88 per cent of the entire Asian bond market. The Republic of Korea is the second largest market, with a market value of US$ 336 billion, or approximately 6 per cent of all Asian bonds outstanding. Singapore is the only other major Asian debt market with a market value of US$ 219 billion; all other markets in publicly listed bonds have market values below US$ 100 billion.

Table 6 further shows that throughout the period from 1995 to 1999, the Asian bond markets have been growing at a fairly steady pace. Japan, the Republic of Korea, Singapore and Taiwan Province of China saw growth of 35 per cent, 99 per cent, 32 per cent, and 38 per cent, respectively. However, the growth rate in 2000 was significantly weaker than that experienced in 1999. The Republic of Korea and Singapore have seen their market size increase only marginally from the 1999 level. Hong Kong, China; Indonesia; Japan and Malaysia suffered a decline in market value. Only Taiwan Province of China showed a fairly healthy growth of approximately 9 per cent compared to 1999. It should be noted, however, that in many economies bonds are not publicly traded but rather traded over-the-counter among investors that comprise mainly banks and financial institutions. Because of this, it is difficult to obtain reliable information on the size of the bond market in terms of trading and turnover.

Table 6. Market value of listed bonds at year end
(millions of US dollars)

	1995	*1996*	*1997*	*1998*	*1999*	*2000*
Hong Kong, China	NA	NA	NA	110 438	98 910	89 401
Indonesia	405	339	109	50	21	165
Colombia	NA	5.3	46.6	64.4	70.2	..
Japan	3 886 535	3 821 540	3 600 291	4 472 648	5 263 913	5 083 839
Malaysia	3 497	3 444	1 788	1 310	1 753	1 563
Philippines	–	6	4	0	0	–
Republic of Korea	162 421	208 167	132 222	277 788	321 697	335 718
Singapore	150 539	161 239	171 626	182 946	198 939	218 792
Taiwan Province of China	31 813	36 750	32 919	36 578	44 284	48 445
Thailand	1 945	927	351	352	155	..

Source: International Federation of Stock Exchanges, www.fibv.com.
Notes: A hyphen (–) indicates that the item is not applicable.
Two dots (..) indicate that data are not available or are not separately reported.

Efforts to promote Asian bond markets

Asian countries and areas have recently made efforts to promote the development of local debt markets. Following the IMF bailout of the Republic of Korea in 1997, a series of steps was taken to reform the country's capital markets. Such steps included the promotion of a more developed, i.e., an active and liquid secondary market for bonds, including reform of the bond issuing procedure, introduction of new debt market products (such as repurchase agreements) and reorganization of the secondary bond market.

There were also efforts to promote participation from retail investors. In September 1999 the Hong Kong Monetary Authority (the de facto central bank of Hong Kong) and the stock exchange of Hong Kong arranged to list Exchange Fund Notes (similar to Treasury notes issued by the Treasury of the United States of America) on the stock exchange of Hong Kong, China. Under this arrangement, the board lot size was reduced to a face value of HK$ 50,000 (US$ 6,410), to promote retail investor participation.

The case of Philippine Treasury securities is another example of the promotion of a local high quality bond market with sufficient market depth. Starting in 1995, the Philippine Bureau of the Treasury began to introduce improvements in market infrastructure for a bond market with a view to promoting the market for Treasury securities. Measures included the launch of an electronic auction system in 1995 and the introduction of scripless government securities in 1997. These improvements paved the way for an efficient and transparent trading system for Treasury securities.

In 1998, the Philippine Treasury introduced the Small Investor Program (SIP) to encourage Philippine citizens to hold (and trade) local government securities. In November 1998, the denomination of the Treasury bills (short-term government securities with maturities within one year) was reduced. As a result, the basic trade size of these securities was reduced from P 10 million to a range between P 25,000 to P 100,000. In June 1999 this programme was extended to Treasury bonds (with maturities from two to 20 years).

The SIP trading system has a settlement bank (Landmark Bank of the Philippines) as the central point of trading activities. In essence, investors deposit funds in their accounts at the settlement bank. When they buy (or sell) a particular issue of securities, the funds are deducted (added) from (to) their deposit accounts and the respective securities are added (removed) to (from) their Treasury securities accounts. Thus, investors can trade Treasury securities in small sums in an efficient (electronic trading) and low cost (scripless to streamline the settlement procedures) manner. In 2001, the Philippine Treasury planned to arrange for the Treasury issues to be listed on a newly established Bond Exchange to further promote SIP.

As a direct result of the 1997 crisis, bond issues and bond trading declined significantly in the second half of 1997 and in 1998. Table 7 summarizes listed bond turnover in the region. The available data suggest that the entire region (including Japan) suffered from a sharp decline in bond turnover. Secondary market activities picked up in 1999 but slowed down substantially in 2000 again. In some countries and areas, most notably the Republic of Korea, Singapore and Taiwan Province of China, bond turnover appears to have recovered to pre-currency crisis levels. However, bond markets in other less developed bond markets remain weak.

Bond issues began to pick up in 1999. In many markets, however, issues have still not recovered to pre-crisis levels. A new characteristic is that the bonds issued in 1997 and 1998 are of significantly shorter maturity. In other words, Asian bond markets are still unable to provide a stable source of long-term funds to corporations. The professional literature attributes this phenomenon to several factors, including the general decline in credit standing of Asian corporations, the lack of pertinent financial information on borrowers and the inadequacy of investor protection in several Asian countries.

Table 7 also reveals that bond trading declined sharply in 2000. Listed bond turnover in Japan declined by 34 per cent from US$ 53.9 billion in 1999 to US$ 35.7 billion in 2000. In the Republic of Korea, bond turnover was very high in 1999 and declined by 90 per cent to US$ 23.9 billion. Turnover in Hong Kong, China, and in Singapore also declined by more than 50 per cent. This decline was probably caused by the significantly enhanced volatility in Asian capital markets owing to the decline in the value of Internet-related stocks.

Table 7. Listed bond turnover in Asian exchanges
(millions of US dollars)

	1995	*1996*	*1997*	*1998*	*1999*	*2000*
Hong Kong, China	47	41	23	14	18	8
Indonesia	–	–	–	–	–	–
Colombia	..	..	1.0	4.9	7.8	5.5
Japan	260 841	206 668	155 623	72 638	53 875	35 680
Malaysia	375	278	908	139	1 032	1 000
Philippines	–	–	–	–	–	–
Republic of Korea	1 855	1 710	4 103	11 383	247 177	23 893
Singapore	3 977	2 840	3 883	876	3 909	1 239
Taiwan Province of China	70	365	683	1 227	1 683	1 629
Thailand	4	–	–	–	–	..

Source: International Federation of Stock Exchanges, www.fibv.com.
Notes: A hyphen (–) indicates that the item is not applicable.
Two dots (..) indicate that data are not available or are not separately reported.

IV. MEASURES TO ENHANCE LONG-TERM BOND MARKET DEVELOPMENT

Taking the region as a whole, there is weak demand for long-term fixed income securities among local investors. This phenomenon is probably associated with underdeveloped systems of retirement benefits, such as pensions. Unlike developed countries, many Asian countries have no national retirement system that requires regular contributions of funds from employers and employees. Lack of investor demand leads to illiquid markets and high transaction costs. This in turn weakens incentives for issuers to sell bonds. In Hong Kong, China, high-quality private issuers typically raise debt financing in Luxembourg, where institutional demand for fixed income securities is greater and liquidity higher.

One possible measure that could be used to enhance bond market development is the adoption of a nationwide retirement benefit system. For example, Hong Kong, China, launched a mandatory pension fund (MPF) scheme for all employees in 2000. Under this defined benefit scheme, employees need to contribute 5 per cent of their monthly income (subject to a ceiling of US$ 128 per employee per month), while the employer contributes another 5 per cent. The funds are invested in qualified MPF programmes provided by approved MPF providers. There are investment guidelines for MPF providers, including the portion that is to be invested locally, and the portions that should be invested in fixed income securities. In the long run, funds from MPF programmes will likely increase the demand for bonds and promote bond market development. However, the MPF scheme is unlikely to show immediate results since it will take time for MPF contributions to grow to a reasonable size.

It is estimated that annual pension fund contributions will amount to more than HK$ 10 billion (US$ 1.3 billion), or around 1 per cent of GDP in the initial year of operation, growing to around HK$ 60 billion (US$ 7.74 billion) when the scheme matures. Part of the fund will need to be invested in the equity market. The 1997 crisis led to a virtual drying up in liquidity of Asian bonds. In particular, issuers appeared to show a polar development in terms of credit standing. Investors typically hold a preponderance of high credit standing bonds and generally refrain from investing in low credit standing bonds. In either case, the secondary market is significantly reduced. In spite of its obvious benefits, there are numerous impediments to the development of viable bond markets in Asia. As discussed previously, there exists a cause-and-effect problem in the process of market development. Outlined below are issues that are pertinent to the basic framework which healthy bond markets need to establish. In general, these factors also apply to equity market development.

Unlike the United States, Asian economies comprise several economies with their own language, culture, customs and legal framework. Hence, the accounting information in one country cannot automatically be translated into that of a second country. This factor contributes to fragmented capital markets, making regional investment difficult and sometimes risky. As none of the economies (except Japan and China) are sizeable enough to provide economies of scale in information processing, bond market development will be difficult. As such, it seems more rational to improve a common set of backgrounds and standards so that regional development can go hand in hand and each economy would benefit from this mode of development.

Apart from the difference in accounting standards, the quantity and quality of information disclosed to investors is limited. The consequence is that investors inherently assume that the investment is risky and requires a steep risk premium. It would be beneficial if sufficient and relevant information were made accessible to investors, either through a mandatory or a voluntary process, and promoters of projects realize the value of transparency.

Traditionally, governments in Asia have a tendency to offer subsidies to activities that fit policy considerations. An example is the provision of low-cost home financing arrangements. In this manner the return on the relevant instrument (e.g., mortgage products in the case of housing) is distorted and can substantially deviate from the market rate of return. If such instruments are suitable for developing a viable capital market (such as securitization of home mortgages), the distortion in the rate of return prohibits the development of this kind of market. The reduction and ultimately the elimination of government intervention of this kind would clearly contribute to the smoother development of viable capital markets.

A solution to the information asymmetry problem is to have issuers analysed and rated by a credible credit agency. The role of the credit agency is to provide an objective analysis of the borrowing firm. Potential lenders can then derive valuable pricing information and assess the risk of holding the bonds issued or making loans to the borrowing firm.

Table 8 provides a summary of local credit agencies operating in the Asian and Pacific region. Since the early 1980s, many countries have established national credit institutions. In some countries, the law requires that debt issuers be rated by designated credit agencies. However, the existing arrangement does not seem to provide sufficient information for lenders and thus effectively promote the bond market. This phenomenon may be due to a number of reasons. For example, most credit agencies are either government departments or are affiliated with the government. When state-owned enterprises issue bonds, the credit agency may be reluctant to rate the borrowing firm negatively.

Table 8. Summary information of local credit rating bureaus in South-East Asia

Country/Economy	*Credit rating agency*	*Established*
Hong Kong, China	NA	NA
Indonesia	Pefindo Credit Rating Agency	1995
Malaysia	Rating Agency Malaysia Berhad	1990
	Malaysian Rating Corporation Berhad	1995
Philippines	Credit Information Bureau Inc.	1982
Republic of Korea	Korea Management Consulting and Credit Rating Corporation	1983
	Korea Investors Service	1985
	National Information and Credit Evaluation Corporation	1986
Singapore	NA	NA
Thailand	Thai Rating and Information Services	1993

Source: Collected from various chapters, Reside, Rhee, and Shimomoto, “The feasibility of creating mortgage-backed securities markets in Asian countries”, Asian Development Bank, (Manila, 1999).

In addition, the quantity and quality of financial and non-financial information may be inadequate for the credit agency to provide a comprehensive and timely analysis of the borrower’s situation. In some countries, borrowers tend to get around the credit rating procedure by issuing alternative types of debt. For example, the majority of bonds issued in the Republic of Korea are guaranteed bonds backed by holding companies. In this way, issuing (subsidiary) companies need not obtain a credit rating, and hence are not required to disclose the relevant pricing information.

To sum up, separate national credit agencies do not appear to provide credible information on borrower quality for international investors. In the more developed capital markets of Hong Kong, China and Singapore, there are no local credit agencies and issuing firms tend to use the service of international credit agencies such as Moody's and Standard and Poor. International credit agencies play a significant role in the capital markets of Asia and the Pacific as international investors often take their analyses as an authoritative and objective measure of a particular local market. For example, the downgrade of a particular country's economic outlook is often interpreted as a significant piece of negative information. International credit agencies also provide analyses on the risk profiles of given countries, industries and specific firms. They employ both quantitative (including a set of comparative statistics of key economic variables) and qualitative measures (including openness of government policies and other non-quantitative areas) to help them arrive at a final decision on the risk profile.

V. POLICY RECOMMENDATIONS

The 1997 Asian crisis amply demonstrated the need for a commitment to establish and strengthen the financial infrastructure in the Asian and Pacific region. During the crisis, many regional economies suffered from a rapid outflow of capital, which led to chain reactions in capital markets known by the expression market contagion. Such instability has been proven to be detrimental to economic growth. A strong factor in the damage caused by the 1997 crisis was the heavy reliance on external financing in many economies. Based on this, it can be argued that an effective means of promoting long-term economic development and preventing future crises is to develop local capital markets as a source of financing for economic development.

Despite the numerous difficulties discussed in this report, it can be further argued that establishing capital markets with sufficient depth is achievable for several reasons. First, the high savings rate in Asia of about 30 per cent should provide sufficient funding sources to support mature capital market markets.

Second, it is conceivable that the pace of economic growth in the region will continue to be significant. The last two years have seen many Asian and Pacific economies demonstrating remarkable resilience after major setbacks. As regional economies continue to grow at a fast rate, successful firms will likely emerge and asset quality in general will improve. Financial markets would be required to cater to the financial requirements of fast-growing corporations.

Last but not least, many Governments in the region have paid serious attention to the capital market's major significance in, and contribution to, the economic development process. Such improved awareness provides a solid foundation in which Governments can cooperate and work towards identifying and implementing the means to enhance capital market development.

Despite the slow development of fixed-income securities markets in the Asian and Pacific economies, there is substantial potential, and need, for developing active bond markets in the region. The region's overall economic development should remain strong and this should lead to a strong need for long-term capital to fund development by governments and corporations. It follows from this that the strong demand for funds would, in response, provide a stable supply of bonds and this would lead to future development of the bond market. At present, the major issue is how to develop the institutional and market structure so that active and stable debt markets can operate. Some of the factors germane to this question are discussed below.

Supply of bonds

Large amounts of funds will be required to support the region's economic activities. Based on a study made in 1995 by Ismail Dalla (See *The Emerging Asian Bond Market*, 1995), a total of US$ 10 trillion is likely to be required between 1996 and 2005 to support infrastructure projects in Asian economies. Should a portion of these sums be financed through the bond markets, issuers, both government and otherwise, would provide a stable supply of bonds. It is estimated that because of the lack of an active bond market and the means to evaluate the credit standing of private issuers, Governments and government-related organizations would dominate bond issues. For example, bond issues in the Hong Kong, China bond market are mainly represented by the Hong Kong Exchange Fund (directly guaranteed by the Government of Hong Kong, China), and quasi-government organizations such as the Hong Kong Mortgage Corporation, the Mass Transit Railway, and the Hong Kong Airport Authority.

Demand for bonds

A favourable factor on the demand side of bond market development is that Asian economies are generally characterized by a high savings rate. Traditionally, investors in Asia have preferred equity to bonds. This phenomenon is probably due to the high economic growth in the region, reflected in strong capital gains in equities, as well as a lack of understanding in the risk-return trade-off in investment. Table 9 shows that the general savings rate in East Asia (i.e., excluding Japan) is 36 per cent, compared with 18 per cent in the United States and 16 per cent in the United Kingdom of Great Britain and Northern Ireland. China, Singapore, and Malaysia exhibit very high savings rates of 40 per cent, 52 per cent, and 47 per cent, respectively. An important issue in the demand for bonds is that Asian economies generally have underdeveloped retirement and pensions schemes. With the adoption of pension systems in economies such as Singapore and Hong Kong, China it is plausible to argue that the demand for long-term yield generating assets will increase steadily.

Table 9. Foreign reserves and savings rates in Asian and Pacific economics

	Foreign reserves 2000 (billions of dollars)	*Savings ratio 1999 (percentage)*
China	166	40
Hong Kong, China	108	30
Singapore	80	52
Thailand	32	33
Republic of Korea	96	34
Malaysia	29	47
Indonesia	22	32
Philippines	13	20
Australia	17	22
Japan	347	28
United States	31	18
Germany	50	23
United Kingdom	39	16

Sources: IMF, *International Financial Statistics,* various issues; World Bank, *World Development Indicators* 2001.

A good regulatory framework

This is needed to promote debt market development. The general framework should aim at setting relevant laws, ordinances and conventions, embodying the legal framework for relevant financial institutions, and develop credible enforcement measures to implement these laws. In general, a good regulatory framework should promote self-regulation and self-monitoring by financial institutions. The regulatory framework should leave sufficient room for market participants to act in a flexible manner. At the same time, the system should include measures to encourage good practice. The underlying principles should include increased transparency of disclosure, enhancement of corporate governance, and recognition of the accountability of regulators. The effect of good regulation strengthens market infrastructure and promotes investor (especially creditor) protection. It also contributes to an effective judicial system and, coincidentally, facilitates high-quality economic information. Table 10 provides a summary of three areas of good market infrastructure and how the individual countries/areas rate in these areas.

Table 10. Indicators of financial infrastructure

Country/areas	*Creditor rights*[a]	*Judicial system effectiveness*[b]	*Quality of information*[c]
Hong Kong, China	HIGH	HIGH	HIGH
Indonesia	LOW	LOW	LOW
Malaysia	MEDIUM	MEDIUM	MEDIUM
Philippines	LOW	LOW	MEDIUM
Republic of Korea	MEDIUM	MEDIUM	MEDIUM
Singapore	HIGH	HIGH	MEDIUM
Taiwan Province of China	LOW	MEDIUM	MEDIUM
Thailand	MEDIUM	LOW	MEDIUM

Source: Raw data from Herring and Chatuscripitak, "The case of the missing market: the bond market and why it matters for financial development", pp. 15-17, Asian Development Bank Institute Working Paper # 11, July 2000. The original paper provides a list of indicators for each of the three criteria for good financial infrastructure. This table simplifies the entries as high (all or most of indicators are above average); medium (mixed scores of above and below average); and low (all or most scores are below average).

[a] Indicators for creditor rights include: contract enforceability, automatic stay on secured assets, secured creditors paid first, restrictions on autonomous reorganization, management does not stay in reorganization, creditor rights, and legal right reserved required to continue operations.

[b] Indicators for effectiveness of judicial system include: efficiency of judicial system, rule of law, corruption, bureaucratic quality, risk of expropriation, and risk of contract repudiation.

[c] Indicators for quality of information include: accounting standards, and index of restriction on the press.

Accounting standards

With the exception of Hong Kong, China, Malaysia and Singapore, which use British accounting standards, standards vary within the region. It would be a positive step if regional accounting and regulatory bodies were to agree on a common set of disclosure standards. Efforts should also be made to ensure that all investors have access to the same set of sensitive information at the same time. As information technologies continue to improve, regulatory bodies should constantly review disclosure guidelines. This would ensure that corporate managers utilize the most efficient and effective means of communicating with investors.

Settlement systems

Within each individual economy, government and regulatory bodies should review and enhance the effectiveness of the trading and settlement system. This would reduce transaction costs and trading risks. On a regional scale, it may be meaningful to explore the possibility of establishing a common trading platform. For example, local exchanges can join forces to develop a trading and clearing system that allows investors to trade securities on a regional basis and give more depth to their individual markets. Another possibility is to develop a non-domestic currency trading system to minimize the impact of capital inflows and outflows. For example, Hong Kong, China is developing a trading system using the United States dollar as the clearing currency. This would encourage the trading of non-domestic currency debt securities listed on the domestic market. It would also reduce the impact of capital inflows on the exchange rate system. Given the experience of the United States dollar settlement system developed in Hong Kong, China regional economies may consider setting similar trading systems so that, in the end, a common trading system will be available.

Corporate governance

This area has been weak among many, if not most, Asian listed companies. Traditionally, many firms are closely held by family members who are typically reluctant to disclose information on operations. There is a need to develop and promote the practice of good corporate governance in Asia. The promotion of corporate governance in Asia must overcome barriers in a culture that sees investors, especially minority investors, remain passive. It is recommend that the first step is to provide adequate education for corporate managers. The regulatory body should draft the principles of best practice and guidelines for desirable conduct. Similarly, there should be suggestions and guidelines to investors concerning their role and rights. The relevant documentation should be distributed or made accessible to corporate managers and investors. Guidelines should also be made to encourage communication between corporate insiders and shareholders. In addition, the regulatory body should see that price-sensitive information is disseminated in the proper manner. Efforts should be made to ensure that no insider dealing is carried out so as to protect minority shareholders. At present, regulatory requirements vary widely among regional economies. Closer cooperation should be facilitated among regional regulators to establish a common understanding on regulatory requirements. Such cooperative efforts will also enhance enforcement by filling the information gap, especially for cross-border transactions. Another possible measure is to organize awards for good corporate governance. The basic idea is to select an Asian corporation that demonstrates best practice in corporate governance. A regional award could be given to a company recognized for their achievements in this area. In this way regional regulators can set up worthwhile examples of good practice and encourage other corporations to follow this path. In the long run, such efforts can enhance regional cooperation and, as a bonus, attract interest from the international investment community.

Credit rating agencies

As discussed previously, separate national credit agencies suffer from a lack of conformity and are weak in providing assurance to foreign investors. Therefore, a regional credit agency should be established to set up common credit assessment standards pertinent to the region's standards and perform unbiased analysis and disclosure. In general, an ideal situation would be to have credit agencies that are independent from national governments to avoid any conflicts of interest. These agencies should operate according to professional standards and should be financially independent from governments or groups of companies. An idea would be to invite international credit agencies to act as founding members so that they can participate in the process of setting up criteria and assessment standards.

Investor education

Statistics show that the percentage of investors holding equity is low in the Asian and Pacific region. The percentage of investors holding other types of securities is even lower. Based on these facts, investor education is critical in order to increase the general investor base and the empowerment of investors who want to perform risk/return analyses as part of their investment process. Investor education is especially important in the bond market, since Asian investors have a general reluctance to hold fixed-income securities. Investor education should aim at building positive attitudes to investing as an integral component of managing one's finances and as an important tool for planning for retirement and other major needs.

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