

# Hong Kong Dollar Debt Market Development in 2002

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New issuance of Hong Kong dollar debt increased moderately in 2002 as borrowers attempted to benefit from the low interest rates and ample liquidity in the financial system. The strong private sector issuance more than offset the slowdown in borrowing by the Exchange Fund, statutory bodies/government-owned corporations and multilateral development banks (MDBs). Market depth increased, as evidenced by the expansion of product variety and investor base. Outstanding debt continued to grow, as new issuance exceeded maturing issues.

A series of initiatives to develop the local debt market infrastructure was launched during the year. A Government working group on debt market development has been set up with a view to streamlining the regulations and procedures on issuing and listing of debt securities. The direct link from the HKMA's Central Moneymarkets Unit (CMU) to Euroclear, the Brussels-based clearance and settlement system, commenced operation. The CMU also introduced a new clearing, settlement and custodian service for US Treasuries.

As in Hong Kong, in the aftermath of the Asian financial crisis, governments of other Asian economies have increased their efforts in promoting local debt market development. Significant growth has been achieved in most economies and there remains considerable potential for further market expansion.

## MARKET OVERVIEW

New issuance of Hong Kong dollar debt rose in 2002 as borrowers attempted to benefit from the low level of interest rates and ample liquidity in the financial system (Chart 1). Total new issues amounted to HK\$396 billion, up 3% from 2001. The debt issuance by non-Multilateral Development Bank (MDB)<sup>1</sup> overseas borrowers, authorized institutions (AIs)<sup>2</sup> and local corporates increased, while that of the Exchange Fund, statutory bodies/

government-owned corporations and MDBs declined. Issuance activity grew fast in the first half of the year, before moderating in recent months as corporate financing needs subsided.

As in many other Asian economies, the deepening of the local bond market was evidenced by the expansion of product variety and investor base (Appendix A). Strong investor demand has supported the increase in the issuance of long-dated private sector paper in Hong Kong. The low interest rates induced demand for

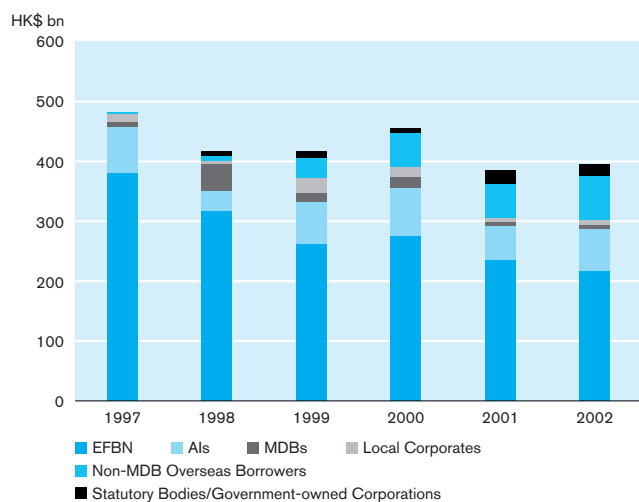
<sup>1</sup> MDBs refer to Asian Development Bank (ADB), Council of Europe Social Development Fund (CEF), European Company for the Financing of Railroad Rolling Stock (Eurofima), European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IADB), International Bank for Reconstruction and Development

(IBRD), International Finance Corporation (IFC), African Development Bank (AfDB), and Nordic Investment Bank (NIB). Income earned on debt securities issued by the MDBs is exempted from profits tax.

<sup>2</sup> AIs include licensed banks, restricted licence banks (RLBs), and deposit-taking companies (DTCs).

CHART 1

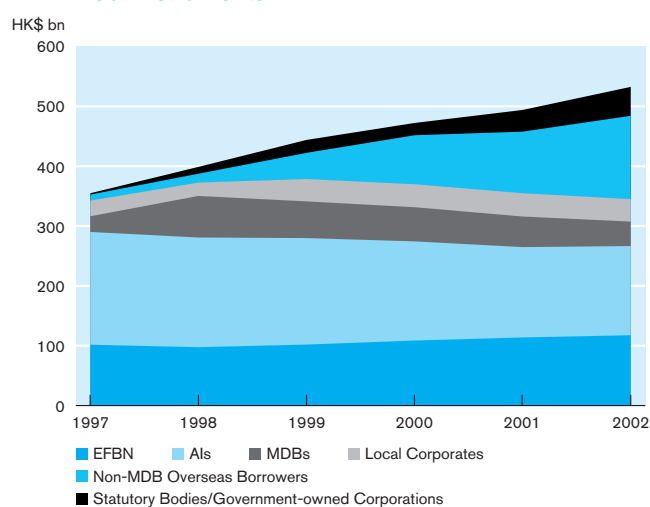
## New Issues of Hong Kong Dollar Debt Instruments



Sources: HKMA, Bloomberg, Basisfield, and Thomson Financial.

CHART 2

## Outstanding Amount of Hong Kong Dollar Debt Instruments



Sources: HKMA, Bloomberg, Basisfield, and Thomson Financial.

structured products with yield enhancement features, for example, step-up coupons and call options.<sup>3</sup> Retail interest in debt securities increased as the volatile stock markets and the record low nominal bank deposit rates raised demand for alternative investment vehicles. The continued development of electronic trading platform has also helped promote bond market transparency and efficiency.

Outstanding Hong Kong dollar debt increased by 8% to HK\$532 billion at the end of 2002, as new issuance exceeded maturing securities (Chart 2). Non-MDB overseas borrowers and Als each accounted for around a quarter of the outstanding debt while the Exchange Fund shared one-fifth of the amount. A detailed breakdown of issuance activities and outstanding amount is in Appendix B.

## HONG KONG DOLLAR FIXED-RATE DEBT MARKET

New issuance of fixed-rate debt, excluding Exchange Fund paper<sup>4</sup>, declined by 4% to HK\$102 billion, constituting about 56% of total amount in the year.

<sup>3</sup> Step-up issues carry lower coupons in the early payment periods, and higher coupons for the subsequent years. Call options provide issuers with the flexibility to redeem issues before the maturity date of the bonds and refinance debt in the future.

<sup>4</sup> All Exchange Fund Bills and Notes are fixed-rate debt.

Local corporates, notably highly-rated companies, were active in issuing fixed-rate bonds to lock in low borrowing costs. Als also stepped up their issuance activity to refinance maturing issues. All other classes of issuers reduced fixed-rate bond issuance during the year. At the end of 2002, outstanding fixed-rate debt, excluding Exchange Fund paper, amounted to HK\$260 billion, a 5% increase over the previous year. Reflecting stronger investor demand for long-dated bonds, the average maturity profile of new fixed-rate debt issues in 2002 increased markedly for MDBs, non-MDB overseas borrowers and local corporates (Table 1).

TABLE 1

### Average Maturity of New Fixed-Rate Debt excluding Exchange Fund Bills and Notes (years)

Issuer	1997	1998	1999	2000	2001	2002
Statutory Bodies/ Government-owned Corporations	—	2.9	2.0	2.0	3.6	2.9
MDBs	5.2	2.0	3.4	4.0	4.8	5.6
Non-MDB Overseas Borrowers	4.3	2.1	1.6	2.2	2.9	3.7
Als	2.5	3.5	2.0	2.1	2.4	2.4
Local Corporates	0.1	0.2	2.4	3.3	2.6	4.3
<b>Total</b>	<b>3.2</b>	<b>2.3</b>	<b>2.2</b>	<b>2.5</b>	<b>3.0</b>	<b>3.3</b>

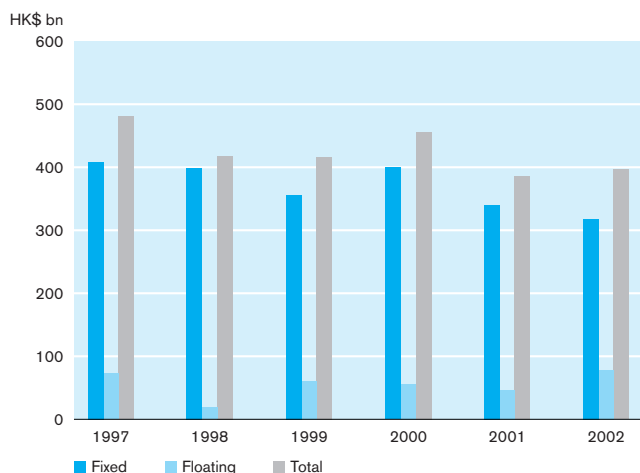
Sources: HKMA, Bloomberg, Basisfield, and Thomson Financial.

## HONG KONG DOLLAR FLOATING-RATE DEBT MARKET

Floating-rate debt issuance increased substantially by 70% to HK\$79 billion in 2002 (Chart 3). Its share in total Hong Kong dollar debt issuance, excluding Exchange Fund paper, also accelerated to 44% in 2002 from 30% in the previous year. Under the low interest rate environment, investor interests for floating-rate paper rose. In particular, strong demand from domestic financial institutions for quality issues facilitated fund-raising activity by non-MDB overseas borrowers, which doubled their floating-rate debt issuance in Hong Kong during the year. AIs and statutory bodies also expanded their issuance significantly, offsetting the reduction in borrowing activity by local corporates and MDBs. At the end of 2002, outstanding floating-rate debt amounted to HK\$155 billion, up 16% from 2001.

CHART 3

### New Fixed-Rate and Floating-Rate Debt Issued in Hong Kong



Sources: HKMA, Bloomberg, Basisfield, and Thomson Financial.

## RETAIL BOND MARKET DEVELOPMENT

Recent developments in the retail bond market have been encouraging. In November 2001, the Hong Kong Mortgage Corporation took the first step to promote the development of the market by introducing a new arrangement for offering retail bonds using banks as placing agents. The market saw a rapid growth in retail bond issuance activities subsequently. In 2002, it is estimated that companies and financial institutions have raised over HK\$18 billion through Hong Kong dollar retail bonds and certificates of deposit, representing 5% of the total Hong Kong dollar debt issuance. Retail bonds with innovative structures, including fixed-inverse floating rate notes<sup>5</sup> and deals with extendable options were offered. The products were well-received by investors given the record low interest rates on bank deposits and volatile equity markets. The launch of retail bonds enables corporate issuers to expand their investor base and achieve lower funding costs. Through the issuance of retail certificates of deposits, banks can lock in cheap medium-term funds and to meet existing customers' demand for higher yields.

## MEASURES TO PROMOTE DEBT MARKET DEVELOPMENT IN HONG KONG

In the past year, a number of measures were initiated to further develop the local debt market infrastructure. The direct link from the CMU to Euroclear<sup>6</sup>, the Brussels-based clearance and settlement system, commenced operation in November 2002. This fully automated, real-time link enables Asian investors to hold and settle international debt securities through their CMU accounts, improving settlement efficiency. The CMU has also introduced a new clearing, settlement and

<sup>5</sup> Fixed-inverse floating rate notes carry fixed-rate coupon for initial years of tenor, followed by floating-rate coupons which are inversely related to the movement of the benchmark interest rate.

<sup>6</sup> The existing indirect one-way link, in which Euroclear operates an account with the CMU through its agent in Hong Kong, was established in December 1994. The link enables Euroclear clients to clear and settle debt securities lodged with the CMU. The new link is a two-way one, in which CMU opens an account with Euroclear itself.

custodian service for US Treasuries in December 2002, thereby enhancing the ability of investors in the region to manage their US dollar liquidity more effectively and with better risk management. In January 2003, the CMU and Clearstream Banking Luxembourg has developed a direct link between their settlement systems. The link provides Asian investors with a window to clear, settle and hold Clearstream eligible debt securities via their CMU accounts and thus to overcome market boundaries. Separately, the HKMA and China Government Securities Depository Trust & Clearing Co. Ltd. (CDC) reached an agreement on establishing a link between their securities settlement systems by early 2003, enabling Mainland financial institutions authorised to deal in foreign exchange transactions to hold and settle debt securities in Hong Kong. The HKMA is also expected to launch the euro clearing system in Hong Kong in 2003 to facilitate the efficient settlement of euro transactions on a real-time basis within the Hong Kong time zone.

From December 2002 on, the HKMA has published daily a set of official reference prices and yields for benchmark Exchange Fund Bills and Notes (the "EFBN fixings"). The availability of representative and widely accepted EFBN fixings will enhance the credibility of the Hong Kong dollar benchmark yield curve, thereby providing a reliable basis against which private sector debt issues can be priced more accurately.

A Government working group on debt market development was set up in 2002 to discuss measures to facilitate debt offerings in Hong Kong. Based on its recommendations, the Securities and Futures Commission (SFC) issued three sets of guidelines in February 2003, with an aim to enable issuers to market their products more flexibly and effectively to the public.

Lately, the Government has also made tax proposals to promote the development of local debt market. While trading profits from qualified debt instruments with a maturity period of five years or more are currently eligible for a 50% profits tax concession, the Government proposed in the 2003-04 budget to

reduce the eligible maturity period from five to three years. In addition, qualified debt instruments with a maturity period of seven years or more will be exempted from profits tax. The proposed tax measures should be conducive to the development of Hong Kong's bond market.

## CONCLUSION

The Hong Kong dollar debt market activity grew moderately in 2002, with increased retail participation and expanded product variety. Looking forward, private sector issuance is expected to remain strong against the background of continued economic rebound. Improvement of market infrastructure, the accumulation of funds managed under the Mandatory Provident Fund (MPF) Scheme and growing acquaintance with bond investment among the public should further support local bond market development.

## APPENDIX A

### BOND MARKET DEVELOPMENTS IN SELECTED ASIAN ECONOMIES

#### INTRODUCTION

Bond markets in most Asian economies have experienced rapid growth in recent years, especially after the financial crisis in 1997. The size of local bond markets in Hong Kong, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand more than doubled between 1997 and 2001.<sup>7</sup> These markets have also become more sophisticated, with enhancement in product variety, issuer and investor bases, and market liquidity. Such progress reflects governments' efforts to develop an alternative venue of financial intermediation in the post-crisis environment, and in a number of cases, to meet their financing needs. With growing interest in this asset class, various bond indices on Asian local and foreign currency-denominated debt markets have been launched by the private sector to provide performance benchmarks.<sup>8</sup>

Despite this considerable growth, Asian bond markets remain under-developed compared to other industrial countries such as the US and Japan, where outstanding domestic debt was over 100% of GDP in 2001 (Table A). Corporate financing in the region is dominated by bank lending, followed by equity financing. While bank loans in most Asian economies have declined in the post-crisis period, largely driven by tighter credit policies in response to the deterioration in

asset quality and stricter enforcement of capital adequacy requirements, a heavy reliance on bank lending remains.<sup>9</sup>

With relatively high saving rates in Asian economies, there exists potential room for further development of local bond markets. The abundant domestic savings — averaging over 30% of GDP between 1990 and 2001 — could be channeled efficiently to long-term domestic investment through a well-developed bond market.<sup>10</sup> With heightened awareness of the risks involved in over-reliance on bank loans and overseas foreign currency borrowing after the crisis, government and private sector initiatives focusing on the development of robust market infrastructure should be conducive to the growth of bond markets.

#### CHANGING MACROECONOMIC ENVIRONMENT AND GOVERNMENT POLICY INITIATIVES

##### Changing Macroeconomic Environment

The remarkable growth of Asian bond markets in the post-crisis period is in part driven by the need

<sup>7</sup> The debt outstanding expanded to over US\$560 billion at the end of 2001, representing a 115% increase over 1997. It grew from 23% of GDP in 1997 to 42% in 2001, and expanded relative to the size of world bond market, from 1% in 1997 to about 2% in 2001. The growth was particularly pronounced in Thailand, Korea and Singapore, increasing by 268%, 171% and 131% respectively, from 1997 to 2001.

<sup>8</sup> The first Asia-dedicated, USD-denominated fixed income index — the JP Morgan Asia Credit Index — was launched in July 1999, and a Model Portfolio was introduced in May 2002. Hongkong & Shanghai Banking Corporation launched the Asian Local Bond Index (ALBI) in March 2002, which comprises about 350 fixed-rate bonds, of which 80-85% are government bonds. As regards country weightings, the ALBI comprised Korea (37%), Hong Kong

(18%), India (17%), Singapore (14%), Taiwan (5%), Malaysia (4%), Thailand (2%) and the Philippines (1%) as of March 2002. The weightings are based on a number of factors, including market size, currency convertibility, accessibility for foreign investors, secondary market liquidity and market infrastructure.

<sup>9</sup> In 2001, bank loan and stock market capitalisation relative to GDP of the eight economies in this study averaged about 101% and 97% respectively, whereas bonds represented only 42%.

<sup>10</sup> The lack of a sophisticated Asian bond market resulted in substantial amount of official savings being invested outside the region, particularly in OECD markets. These flow back in the form of short-term portfolios, which can be withdrawn at short notice (Tsang, 1998).

TABLE A

## Size of Different Financing Channels of Selected Asian Economies in 2001

Country/ Economy	GDP	Bank Loans		Stock Market Capitalisation		Bond Market		Of which: Public Sector Bonds		Private Sector Bonds	
		US\$ bn	US\$ bn	%	US\$ bn	%	US\$ bn	%	US\$ bn	%	US\$ bn
Hong Kong	161.9	252.6	156.0	506.1	312.5	63.3	39.1	19.2	30.4	44.1	69.6
Indonesia	143.4	28.7	20.0	23.0	16.0	5.4	3.8	4.0	74.0	1.4	26.0
Korea	414.9	405.7	97.8	194.5	46.9	261.4	63.0	125.3	47.9	136.1	52.1
Malaysia	87.5	95.9	109.5	119.0	135.9	49.7	56.8	28.6	57.6	21.1	42.4
Philippines	70.6	25.1	35.5	21.2	30.1	3.2	4.5	2.1	64.6	1.1	35.4
Singapore	83.2	100.3	120.6	115.7	139.1	55.1	66.2	31.9	58.0	23.1	42.0
Taiwan	273.0	365.6	133.9	292.6	107.2	82.4	30.2	53.2	64.5	29.2	35.5
Thailand	115.4	85.4	74.0	35.9	31.2	42.6	36.9	30.4	71.4	12.2	28.6
<b>Average</b>	<b>168.7</b>	<b>169.9</b>	<b>100.7</b>	<b>163.5</b>	<b>96.9</b>	<b>70.4</b>	<b>41.7</b>	<b>36.8</b>	<b>52.3</b>	<b>33.5</b>	<b>47.7</b>
United States	10,208.1	7,587.5	74.3	13,923.4	136.4	17,118.0	167.7	10,010.8	58.5	7,107.2	41.5
United Kingdom	1,439.0	1,998.1	138.9	2,149.5	149.4	601.2	41.8	419.7	69.8	181.5	30.2
Japan	3,825.0	4,094.1	107.0	2,264.5	59.2	4,965.1	129.8	3,879.1	78.1	1,086.1	21.9
<b>Average</b>	<b>5,157.3</b>	<b>4,559.9</b>	<b>88.4</b>	<b>6,112.5</b>	<b>118.5</b>	<b>7,561.4</b>	<b>146.6</b>	<b>4,769.8</b>	<b>63.1</b>	<b>2,791.6</b>	<b>36.9</b>

Sources: International Financial Statistics, International Federation of Stock Exchanges, IFC Bond Database, Thai Bond Dealing Centre, Thomson Financial, CEIC and various central banks.

## Notes:

- Bank loans are domestic credit extended to the private sector. All bank loan data, except Taiwan, is reported in line 32d in the International Financial Statistics.
- All outstanding bond data is as of end-2001, except for Japan (end-March 2001), Indonesia, Malaysia and the United Kingdom (end-2000), and the Philippines (end-1999). Data refers to local currency denominated bond.
- Bond data for Hong Kong, Korea, Taiwan, the United States, the United Kingdom and Japan is from central banks. The data for Indonesia, Malaysia and the Philippines is from IFC Bond Database. The data for Thailand is from Thai Bond Dealing Centre. The data for Singapore is estimated based on the MAS and Thomson Financial data.
- Public sector refers to government bodies and quasi-government entities.
- Private sector refers to non-public sector and includes financial institutions, corporates and overseas institutions.

to finance large fiscal deficits and the restructuring of banks. Most government bond markets in the region were under-developed in the pre-crisis period, as prudent fiscal policies resulted in little financing need. After the Asian financial crisis, however, increasing fiscal deficits and costs of bank restructuring in Korea, Malaysia, and Indonesia have raised significantly the public sector borrowing requirements, mainly financed through the issuance of government bonds. Quasi-government bonds were also issued to finance public projects. Overall, the primary public sector bond markets appeared to grow rapidly in response to government financing needs, though secondary market liquidity remained relatively low in most Asian economies.

The growing domestic public sector bond markets may in turn contribute to the development of private sector bond markets in the region. Private sector markets have experienced significant growth in Singapore, Thailand, Taiwan, Malaysia, and Korea in the post-crisis environment. This is partly attributable to improved market infrastructure, a growing institutional investor base such as pension funds and insurance companies, and the shrinkage in bank lending. Nevertheless, private sector bond markets in the region still lag behind the banking sectors and equity markets as a funding channel.<sup>11</sup> The size of private sector bond markets varied across Asian economies, ranging from about 1% of GDP in Indonesia to about 30% of GDP in Korea in 2001.

<sup>11</sup> On average, private sector bond outstanding in these Asian economies amounted to 20% of GDP in 2001, compared to 70% in the US.

## Major Government Initiatives in Developing Domestic Bond Markets

Local governments have undertaken several initiatives to develop domestic bond markets since the Asian financial crisis. Though these economies are at different stages of development with country-specific circumstances, these measures can be broadly categorised into two areas: policy initiatives to create an enabling environment to support bond market development, and infrastructure to develop bond markets.

### *Initiatives to Support Bond Market Development*

Apart from a stable macroeconomic and political environment, policy measures to provide an enabling framework for both bond issuers and investors are particularly important for market development. These initiatives include providing a transparent legal and regulatory system, a well-designed tax policy, credible and independent rating agencies and well-functioning derivatives markets.

Several economies (Malaysia, Thailand, Korea and Singapore) have implemented decisive reforms of their legal and regulatory systems to encourage local and foreign participation in domestic bond markets, while not compromising financial stability. Major initiatives include the issuance of guidelines for bond issuing and trading, relaxation of institutional investment restrictions,

streamlining documentary requirements, and the establishment of regulatory authorities. In particular, the non-internationalisation policy for the Singapore dollar has gradually shifted since 1998 to encourage international participation in the domestic capital market.<sup>12</sup> Foreign entities allowed to access the Singapore dollar bond market have been widened to include all rated and non-rated foreign sovereigns and corporates.

On tax issues, policymakers recognise the significant impact of tax treatment of financial instruments on capital market development, given the increased cross-border mobility of capital. While some economies (including Singapore) have introduced tax incentives after the crisis to promote bond market development, others (Korea, Taiwan and Thailand) have removed unfavorable tax treatment of debt securities. Hong Kong has maintained a low and simple tax regime to facilitate financial market activities, with some tax concessions offered to debt instruments.

Independent and credible rating services are important for promoting bond market development. Korea, Malaysia, the Philippines, Indonesia, Taiwan and Thailand have established local credit rating agencies to provide credit analysis of issuers, usually on government initiatives and in co-operation with international rating agencies that provide technical assistance. Governments have supported such agencies through equity participation, imposing regulatory requirements on ratings, or taking a lead in recognising their ratings for regulatory purposes. On the contrary, Hong Kong and Singapore have no domestic rating agency, preferring to leave the task to the major international agencies.

Korea, Singapore, Hong Kong and Malaysia have introduced futures contracts on their domestic government bonds to provide risk management instruments, and to bolster liquidity and transparency of bond markets. Korean Treasury bond futures were launched in 1999 and have since become the most popular hedging tool for

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<sup>12</sup> The non-internationalisation policy for the Singapore dollar is aimed at enhancing the effectiveness of monetary policy. Since 1998, non-residents have been allowed to raise Singapore dollar through bond and stock issues provided that the proceeds would be swapped into foreign currency. In March 2002, further relaxation of the policy included lifting restrictions on asset swaps, cross-currency swaps and cross-currency repos for offshore entities (both financial institutions and non-financial institutions). The requirement for non-residents to swap the Singapore dollar proceeds into foreign currency on drawdown remains, if the proceeds are to be used offshore.

bond investors (JP Morgan, 2002). Government bond futures in Hong Kong and Singapore are still in the initial development phase (both were launched in 2001), with limited liquidity. Malaysia introduced a government bond futures contract in March 2002.

### **Infrastructure to Develop Bond Markets**

Asian governments have made significant progress in enhancing the financial infrastructure to promote market development. This is in part the result of government bond market development, which helps to build up the necessary infrastructure for the private sector. Major progress has been made in improving the reliability of benchmark yield curves, establishing or expanding market-making systems, enhancing clearing and trading systems, and improving information transparency.

As part of the effort to develop the long end of local bond markets, several Asian economies have extended their benchmark yield curves, to 15-year in Singapore and 20-year in Thailand in 2001. The Philippines has steadily lengthened its yield curve to 25-year in 2000 to facilitate long-term borrowing by utilities and infrastructure companies. Korea is in the process of extending the benchmark yield curve from 5 years to 10 years.

To enhance the quality of the benchmark yield curves, Asian economies have set up buyback programs (Singapore and Malaysia), reopened off-the-run issues (Singapore, Malaysia, Hong Kong and Thailand), enlarged the size of benchmark issues (Singapore, Korea and Malaysia) and made efforts to promote market-making systems.<sup>13</sup> Such measures are expected to enhance secondary government bond market liquidity and the reliability of benchmark yield

curves. Several economies (Thailand and Korea) introduced market-making systems for government bonds after the Asian financial crisis, while others (Hong Kong, the Philippines, Singapore and Taiwan) increased the number of market makers gradually over the years and/or enhanced the performance of market-making arrangement.<sup>14</sup>

Regarding clearing and settlement system, Asian economies have been moving towards real time gross settlement (RTGS) system with delivery versus payment (DvP) facility to reduce settlement risk. While Malaysia (1999) and Indonesia (2000) have introduced RTGS systems in recent years to enhance the efficiency in trading and settlement of debt securities, Thailand and the Philippines are in the process of developing RTGS systems. Among these economies, Hong Kong and Singapore are the pioneers and have adopted RTGS systems with DvP facility since 1996 and 1998 respectively, enabling the same or next day clearing of funds and securities (BIS, 2001). The clearing and settlement system in Hong Kong (Central Moneymarkets Unit (CMU)) provides real time and end-of-day DvP clearing and settlement facilities for Hong Kong dollar and US dollar denominated debt, eliminating settlement risk arising from time zone differences. The CMU also has established extensive regional and international linkages to facilitate cross-border transactions of debt instruments.

To enhance market transparency, most Asian economies announce regular auction schedules or issuance calendars of government bonds in advance to facilitate better portfolio management by investors (BIS, 2001). While Malaysia, Korea, and Singapore announce advance government bond issuance calendars on an annual basis,

<sup>13</sup> In many economies, market makers have been granted certain privileges for making a market for government bonds, including exclusive access to auction (Korea) and central bank open market operation (Thailand), liquidity support from the central bank (Malaysia) and short-selling facilities (Hong Kong and Singapore) (BIS, 2001).

<sup>14</sup> With a market-making system for government bonds in place since 1990, Hong Kong has reviewed market makers' performance against benchmark criteria on a quarterly basis starting from 2001 to improve the functioning of the system.



Hong Kong and Taiwan publish quarterly advance schedules. The rise of electronic trading systems in local bond markets is expected to improve trading efficiency. In Hong Kong and Singapore, the introduction of electronic bond trading platforms by the private sector since 2000 is expected to enhance the price discovery process. In addition, Taiwan and Thailand are in the process of developing electronic trading platforms for government bonds.

## CONCLUSION

The Asian financial crisis has highlighted the liquidity and currency mismatch risks arising from over-reliance on bank financing, especially short-term external loans. A deep and liquid domestic as well as regional bond market could mitigate the impact of credit disruptions associated with a banking crisis on real economic activity by providing an alternative source of financing. With high saving rates in the region, there is considerable potential for the further growth of local bond markets.

While Asian economies have made substantial progress in developing domestic bond markets, a vibrant market requires a combination of macroeconomic stability, sound legal and regulatory framework, a robust banking system, efficient market infrastructure, and a well-developed credit rating system. Regional cooperation through harmonisation and standardisation of individual markets could enhance the sharing of experience as well as cross-border transactions (Asami and Mori, 2001). Regular interaction among policy makers and private sector representatives in the region as well as a collaborative improvement in market infrastructure is helpful.

## APPENDIX B

**New Issues of Hong Kong Dollar Debt Instruments  
(HK\$ million)**

During	Exchange Fund	Statutory Bodies*	MDBs	Non-MDB Overseas Borrowers	Als	Local Corporates	Total
1997	379,900	0	8,650	2,540	76,902	12,778	480,770
1998	316,850	9,171	44,502	7,728	33,307	6,180	417,738
1999	261,443	10,386	15,920	34,417	70,290	24,098	416,553
2000	275,036	8,325	19,330	57,110	79,753	16,107	455,661
2001	233,960	24,316	7,462	56,865	57,807	5,600	386,011
2002	216,228	21,557	5,200	73,065	71,406	8,854	396,312
Increase/ Decrease Over 2001	(17,732)	(2,759)	(2,262)	16,200	13,599	3,254	10,301

**Outstanding Amount of Hong Kong Dollar Debt Instruments  
(HK\$ million)**

As at end of	Exchange Fund	Statutory Bodies*	MDBs	Non-MDB Overseas Borrowers	Als	Local Corporates	Total
1997	101,650	2,295	26,150	10,032	188,387	26,183	354,698
1998	97,450	11,366	69,402	14,777	183,300	22,378	398,673
1999	101,874	21,572	61,287	43,767	177,915	37,331	443,745
2000	108,602	20,509	57,062	81,840	165,680	38,405	472,098
2001	113,750	36,227	51,104	102,897	150,960	38,880	493,818
2002	117,476	48,329	40,834	139,145	149,013	37,567	532,364
Increase/ Decrease Over 2001	3,726	12,101	(10,270)	36,249	(1,947)	(1,313)	38,546

\*Include government-owned corporations

Sources: HKMA, Bloomberg, Basisfield and Thomson Financial

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