4 Institutional foundations

Credit insurers, asset-backed securitisation corporations and Asian bond funds

Michael Chak Sham Wong and Richard Yan Ki Ho

For the past few years, Asian governments have undertaken a range of measures to develop domestic bondmarkets, including issuing government securities, encouraging financial institutions to invest in marketable debt securities, implementing legal reforms for debt securities issuances, building infrastructure for bond trading and clearing, and establishing credit guarantee mechanisms. These measures are aimed at achieving financial disintermediation in national economies and diversifying the sources of public and private sector funding. While many arguments have been made as to the causes of the East Asian financial crisis, it is generally agreed that one fundamental cause was the global banks' collective withdrawal of their lending activities from the region. This caused some Asian financial and non-financial institutions to become insolvent, jeopardising the regional banking and economic systems. With the aim of making the financial systems of Asian developing economies less vulnerable, the International Monetary Fund, World Bank and Asian Development Bank have since actively promoted the establishment of domestic bondmarkets.¹ A domestic bondmarket can increase the efficiency of surplus funds allocation, retain domestic capitals, diversify funding sources for corporations and increase the number of channels through which governments can stabilise their financial markets.

The efforts that Asian—especially East Asian—governments have made to develop bondmarkets are evidenced by the growing size of their debt securities' issuances. China, Hong Kong SAR, Korea, Singapore and Chinese Taipei have made remarkable increases in bond issuance, with the total amount of their bond issuances in 2001 nearly double that of bond issuances in 1998 (Table 4.1). Due to global concerns about terrorism and economic downturns, bond issuance decreased in 2001. International and domestic capitals shifted

to less risky assets, such as OECD government bonds and AAA bonds. In 2002, bond issuance in East Asia recovered and reached a volume close to its 1998 level.

In addition to bond issuance, many efforts have been made to promote the secondary market for Asian bonds. For instance, Japan proposed to build a regional bondmarket in Tokyo in March 2003. In late 2002, Hong Kong set up the Central Moneymarkets Unit to deal with clearing, settlement and custodian

Table 4.1 Bond issuance and total financing in selected East Asian economies, 1998–2002 (US\$ billion)

Total emerging market financing in East Asia ^a					
	1998	1999	2000	2001	2002
China	6,975.1	3,461.8	23,063.4	5,567.3	6,101.0
Hong Kong SAR	2,093.2	11,488.3	21,046.4	18,307.3	7,014.7
Indonesia	374.2	1,465.3	1,283.1	964.9	756.0
Korea	6,259.9	13,542.3	14,230.4	17,021.0	14,546.3
Malaysia	2,527.2	5,177.2	4,506.4	4,432.4	5,108.9
Philippines	4,113.0	7,181.7	5,021.9	3,658.8	5,797.3
Singapore	2,466.5	4,338.7	6,079.7	10,383.6	2,951.6
Chinese Taipei	2,439.1	4,019.9	6,703.5	3,794.0	9,279.0
Thailand	5,047.1	2,551.7	1,572.5	684.4	1,003.1
Total	32,295.3	53,226.9	83,507.3	64,813.7	52,557.9
Total bond issuance					
	1998	1999	2000	2001	2002
China	1,794.0	1,060.0	1,770.7	2,341.9	602.8
Hong Kong SAR	725.4	7,124.8	7,058.9	10,458.6	1,951.6
Indonesia	-	-	-	125.0	375.0
Korea	5,084.4	4,905.8	7,653.0	7,756.3	6,705.5
Malaysia		2,062.4	1,419.7	2,150.0	1,880.0
Philippines	1,890.0	4,751.2	2,467.3	1,842.4	4,773.8
Singapore	1,500.0	2,147.2	2,338.8	8,664.7	560.5
Chinese Taipei	1,041.0	475.0	1,698.0	2,152.4	5,450.8
Thailand	300.0	794.4	-	278.6	48.0
Total	12,334.8	23,320.8	24,406.4	35,769.9	22,348.0
Bond issuance/total financing (per cent)	38.2	43.8	29.2	55.2	42.5

^a Total financing includes loan syndications, bond issuances and equity issuances.

Source: International Monetary Fund, 2003. *Global Financial Stability Report: market developments and issues*, March, International Monetary Fund, Washington, DC. Available online at <http://www.imf.org/External/Pubs/FT/GFSR/2003/01/index.htm>.

Table 4.2 Size of selected capital markets, 2001

	US\$ billion				% of GDP				% of capital market			
	EU-15	US	Japan	Asian emerging market	EU-15	US	Japan	Asian emerging market	EU-15	US	Japan	Asian emerging market
GDP	7,906.9	10,082.2	4,169.9	3,229.7					15.34	18.50	7.65	34.72
Stockmarket capital	6,763.0	13,826.6	2,293.8	1,310.4	85.53	137.14	22.75	40.57	13.12	25.38	4.21	14.09
Debt securities												
Public	4,868.8	9,698.0	5,317.1	674.1	61.58	96.19	52.74	20.87	9.45	17.80	9.76	7.25
Private	6,974.6	8,806.3	1,608.0	595.9	88.21	87.35	15.95	18.45	13.53	16.16	2.95	6.41
Total	11,843.4	18,504.3	6,925.1	1,270.0	149.79	183.53	68.69	39.32	22.98	33.96	12.71	13.65
Bank assets	32,939.7	22,157.4	12,408.6	6,722.4	416.59	219.77	123.07	208.14	63.90	40.66	22.77	72.26
Capital market ^a	51,546.1	54,488.3	21,627.5	9,302.8	651.91	540.44	214.51	288.04				

^a Capital market is the sum of stocks, debt securities and bank assets.

Source: International Monetary Fund, 2003. *Global Financial Stability Report: market developments and issues*, March, International Monetary Fund, Washington, DC. Available online at <http://www.imf.org/External/Pubs/FT/GFSR/2003/01/index.htm>.

services associated with trading of domestic and international bonds. A number of stock exchanges have allowed the listing of debt securities. Some investment banks have jointly developed electronic platforms for Asian bond trading. Do these activities reflect an active Asia bondmarket?

Is the size of Asian bond issuance sufficient? Does it have more room to grow? These questions can be answered by a comparison of the United States, the European Union (15 countries), Japan and emerging Asian markets. The size of Asian debt securities, including those of Japan, exceeds US\$8,200 billion. This is 30 per cent less than the European Union and 50 per cent less than the United States. In terms of size of debt securities relative to GDP, for Japan it is around 69 per cent, for emerging Asian markets 39 per cent, for the European Union 150 per cent and for the United States 184 per cent (Table 4.2). Obviously, Asian bonds have much room to grow. In particular, the size of private sector debt securities in Asia deserves our attention. The size of private sector debt securities relative to GDP in Japan is around 16 per cent, and in emerging Asian market economies around 19 per cent. These ratios are far below the ratios in the European Union and the United States (both around 87 per cent). In addition, many of these debt securities from the private sector are debt instruments issued by financial institutions. Very few domestic corporations are able to issue debt securities in Asia.

Debt securities handled by the Central Moneymarkets Unit are denominated in euros, US dollars, Canadian dollars, British pounds, Australian dollars or Hong Kong dollars (Table 4.3). The list shows a very small number of debt securities issued by Asia-based corporations. Many of the debt securities are issued by global banks and multinational corporations. Data on fixed-income securities issued by Asian institutions are provided by HSBC, an active bond dealer in Asia (Table 4.4). Securities that have been issued and actively traded in the secondary markets are shown. Obviously, most of the bond issuers are governments and government-based corporations. Very few private corporations are represented, indicating that disintermediation in Asia, especially in emerging economies, has made little progress. Corporations cannot easily raise funds directly from lenders and must rely on bank loans to support their business. The bank loans are mostly short term or payable on demand. In the event of any economic instability, banks may collectively tighten their credit, causing debtor corporations to become insolvent immediately. In a worst-case scenario, this could lead to another financial crisis.

Table 4.3 Issuers of the debt securities handled by the Central Moneymarkets Unit in Hong Kong

Abbey National Treasury Services PLC	Fortis Bank
ABN Amro Bank NV	Fortis Bank Asia Hong Kong
Agricultural Bank of China	GE Capital (Hong Kong) Ltd
AIG Finance (Hong Kong) Ltd	Hang Seng Bank Ltd
Airport Authority Hong Kong	HD Finance (BVI) Ltd
Amoy International Treasury Ltd	HKMC Funding Corporation (1) Ltd
Asia Commercial Bank Ltd	Hong Kong Electric (Cayman) Ltd
Banca Intesa SPA, Hong Kong Branch	Hong Kong and Shanghai Banking Corporation Ltd
Banca Nazionale Del Lavoro SPA	Hong Kong Electric Finance (Cayman) Ltd
Bank Austria Aktiengesellschaft	Hong Kong Mortgage Corporation Ltd
Bank of East Asia, Ltd	Hutchinson Whampoa Hongville Finance Ltd
Bank of Nova Scotia	Inchroy Credit Corporation Ltd
Bank of Tokyo-Mitsubishi Ltd.	Industrial and Commercial Bank of China (Asia) Ltd
Barclays Bank PLC	International Bank of Asia Ltd
Bauhinia MBS Ltd	International Bank for Reconstruction and Development
Bayerische Hypo-Und Vereinsbank AG	Jian Sing Bank Ltd
Bayerische Landesbank	JPMorgan Chase Bank
BNP Paribas, Hong Kong	Kookmin Bank
Chekiang First Bank Ltd	Lung Kee Investments Ltd
Cheung Kong Finance Cayman Ltd	Malayan Banking Berhad (trading as Maybank)
China Construction Bank	Mizuho Corporate Bank Ltd, Hong Kong Branch
Citibank NA	MTR Corporation (CI) Ltd
Citic Hong Kong Finance Ltd	Nedbank Ltd
Citic Ka Wah Bank Ltd	Nordic Investment Bank
Commerzbank AG	Public Bank Berhad, Kuala Lumpur
Commerzbank Aktiengesellschaft, Frankfurt	Shanghai Commercial Bank Ltd
Commonwealth Bank of Australia	Standard Bank Asia Ltd
Cooperatieve Centrale Raiffeisen-Boerenleenbank BA	Standard Chartered Bank
Credit Agricole Indosuez	Sumitomo Mitsui Banking Corporation
Credit Lyonnais	Sun Hung Kai Properties (Capital Market) Ltd
Credit Lyonnais France	Swire Pacific Holdings Inc.
Dah Sing Bank Ltd	Swire Pacific MTN Financing Ltd
Dao Heng Bank Ltd	UBS AG, Hong Kong
DBS Kwong On Bank Ltd	UFJ Bank Ltd, Hong Kong Branch
Deutsche Bank AG, London	Westpac Banking Corporation
Deutsche Bank Aktiengesellschaft	Wharf Finance (BVI) Ltd
Development Bank of Singapore	Wing Hang Bank Ltd
Dresdner Bank AG	Wing Lung Bank Ltd
European Investment Bank	
Fast Lane Investments Ltd	

Source: Hong Kong Monetary Authority, April 2003.

Recent proposals for bondmarket development

In February 2003, China, Japan, Korea and the 10 member economies of ASEAN+3 agreed to develop an Asian regional bondmarket based in Tokyo (*Asian Wall Street Journal*, 3 March 2003, 'Japan proposes regional market for Asian bonds'). The purpose of the Asian regional bondmarket would be to prevent the occurrence of another currency crisis and stem the flow of surplus savings out of Asia. ASEAN+3 members have discussed a number of initiatives relating to bondmarket development, including

- active issuance of sovereign bonds by Asian governments
- allowing cross-border enterprises to issue domestic bonds to finance their foreign direct investments
- active development of the market for asset-backed securities
- issuance of bonds denominated in local currency, foreign currencies and currency baskets
- effective use of credit guarantees (such as Asian Regional Guarantees Facilities)
- developing the bondmarket infrastructure (accounting standards, disclosure rules, settlement systems, rating agencies, and rules and regulations concerning transactions).

Such initiatives would establish the framework for further cooperative efforts to be made by East Asian governments. However, an important question remains: can a regional bondmarket established in Japan, Singapore or Hong Kong really accelerate the growth of Asian corporate bonds?

A bondmarket mainly serves the functions of originating, underwriting, listing, trading and settling debt securities. Today, the first four of these functions can be performed easily electronically. Many financial instruments, such as equities, bonds and derivatives, can be structured, underwritten and traded in the over-the-counter market; they do not necessarily require a physical marketplace. The fifth function, settlement, may need to be performed in a market that allows free capital flows. In Asia, Japan, Singapore and Hong Kong could be good locations for bond settlement because of their free flow of international capital.²

The success of a financial market is not in its physical form alone, since many financial instruments fail to grow because of insufficient demand. Even as Asia provides the necessary infrastructure for bond trading and settlement, the region's corporate bonds will not grow if they are not of sufficiently good quality to appeal to international and domestic investors. Recent meetings of APEC leaders have identified two mechanisms to help improve the quality of Asian debt securities: credit guarantee and securitisation. This chapter extends

Table 4.4 Asian fixed-income securities at May 2003

Region	Issuer	Coupon	Freq. (US\$)	Maturity to UST	Mid price	Mid spread
China/HK						
	People's Republic of China	7.750	2	5 July 2006	115.58	2.494
	People's Republic of China	7.300	2	15 December 2008	121.83	2.997
	People's Republic of China	6.800	1	23 May 2011	121.27	3.644
	China Telecom Hong Kong	7.875	2	2 November 2004	108.03	2.120
	China International Training and Investment	9.000	2	15 October 2006	117.83	3.369
	Citic Pacific Fin. (2001)	7.625	2	1 June 2011	113.52	5.513
	CLP Power	7.500	2	15 April 2006	113.51	2.594
	HK Land Fin.	7.000	2	3 May 2011	114.80	4.738
	KIn-Canton Rail	7.250	2	27 July 2009	122.19	3.247
	KIn-Canton Rail	8.000	2	15 March 2010	127.08	3.488
	Hut. Wham Fin.	6.950	2	1 August 2007	113.81	3.372
	MTR Limited	7.250	2	1 October 2005	111.46	2.195
	MTR Limited	7.500	2	4 February 2009	121.90	3.247
	MTR Limited	7.500	2	8 November 2010	125.35	3.588
	Swire Pacific	8.500	2	29 September 2004	108.20	2.220
	Wharf Capital International	8.875	2	1 November 2004	109.34	2.170
	Wharf Capital International	7.625	2	13 March 2007	115.19	3.322
Indonesia						
	Republic of Indonesia	7.750	2	1 August 2006	107.25	5.237
	Bk Negara Indonesia	7.625	2	15 February 2007	106.14	5.761

Korea					
Republic of Korea	8.875	2	17 April 2008	125.19	3.19
Exp-Imp Bk Korea	6.375	2	15 February 2006	109.07	2.870
Korea Development Bank	7.375	2	17 September 2004	106.80	2.045
Korea Development Bank	7.250	2	15 May 2006	112.27	2.895
Pohang I&S	7.125	2	1 November 2006	112.47	3.244
Philippines					
Republic of the Philippines	8.875	2	15 April 2008	109.17	6.526
Republic of the Philippines	9.875	2	16 March 2010	113.85	7.166
Republic of the Philippines	10.625	2	16 March 2025	114.38	9.047
AC Intl Fin.	8.750	2	15 January 2005	104.65	8.169
Bangko Sen. Ng. Phil.	8.500	2	11 August 2004	106.73	2.752
Phil. Long Dist. Tel.	10.625	2	2 June 2004	104.65	5.809
Thailand					
Kingdom of Thai	7.750	2	15 April 2007	117.88	2.846
Ind. Fin. Corp-Thai	7.375	2	14 January 2007	113.83	3.296
Bangkok Bank (sub.)	8.750	2	15 March 2007	118.18	3.580
Malaysia					
Govt of Malaysia	8.875	2	1 June 2009	128.11	3.517
Malayan Bank (sub.)	7.125	2	15 September 2005	109.49	2.820
Petroliaam Nas.	8.875	2	1 August 2004	108.08	1.870
Petroliaam Nas.	7.125	2	18 October 2006	113.79	2.825
Petroliaam Nas.	7.625	2	15 October 2026	115.69	6.329
Tenaga Nas.	7.625	2	29 April 2007	114.59	3.597
Tenaga Nas.	7.500	2	1 November 2025	109.47	6.679
Tenaga Nas.	7.625	2	1 April 2011	117.99	4.838
Maximum	10.625	2	15 October 2026	128.11	9.047
Median	7.625	2	13 March 2007	113.81	3.322
Minimum	6.375	1	2 June 2004	104.65	1.870

Source: HSBC markets, reported in *South China Morning Post*, 27 May 2003.

the discussion by suggesting institutional foundations required to ensure the emergence and growth of credit guarantee and securitisation in Asia. It also discusses the demand side of Asian corporate bonds and recommends the establishment of securitised Asian bond funds.

Credit quality of Asian corporate bonds

Many argue that the slow growth of the Asian corporate bondmarket is due to the lack of credit ratings on Asian bonds, due in turn to the reluctance of international rating agencies to analyse the creditworthiness of Asian corporations. Lack of information and insufficient demand for information on credit ratings may explain the inactivity of international rating agencies in Asia. Some argue that there should be more Asia-based rating agencies to provide credit ratings on Asian corporations. However, it could take years for such rating agencies to gain global recognition.

Let us suppose that many creditworthy and independent credit-rating agencies were present in Asia, and that these credit-rating agencies were actively rating Asian debt securities. Would this result in rapid growth of the Asian bondmarket? The answer is negative. High-yield bonds, previously known as 'junk' bonds, have been in the market since the early 1980s, and market growth over the past 20 years has been very fast. In terms of size, however, high-yield bonds account for only a small percentage of all debt securities issued. High-yield bonds represent bonds with credit ratings at speculative grades. They include emerging sovereign debts. In the bondmarket, investors are mainly institutions such as governments, central banks, supranational organisations, pension funds, mutual funds, multinational corporations, insurance companies and banking institutions, all of which tend to look for stable returns and have strong preferences on investment-grade debt securities. The bottom line of investment grade is Baa (Moody's system) or BBB (Standard & Poors' system) (Table 4.5). The Eurobond market mainly deals with assets of investment grade. The medium-term note market also deals with corporations or banks granted credit ratings or financial strength ratings at investment grade. Interbank transactions mainly involve assets of investment grade, which effectively act as a permit to gain access to a large pool of international investors.

The reality is that many Asian corporations find it hard to gain credit ratings at investment grade. Moody's credit rating on emerging sovereign debts in Asia—Singapore, Chinese Taipei and Japan—occupy the highest positions with double-A ratings and above (Table 4.6). Hong Kong SAR, Macau, China and Korea have only single-A ratings, and others have B-related

Table 4.5 Bond credit quality ratings

	Moody's	Standard & Poors'	Fitch IBCA	Duff & Phelps
Investment grade				
Highest quality	Aaa	AAA	AAA	AAA
High quality	Aa	AA	AA	AA
Upper medium grade	A	A	A	A
Medium grade	Baa	BBB	BBB	BBB
Speculative grade				
Lower medium grade	Ba	BB	BB	BB
Low grade	B	B	B	B
Poor quality	Caa	CCC	CCC	CCC
Most speculative	Ca	CC	CC	CC
Bankruptcy petition filed	C	D	C	C
In default	C	D	D	D

Table 4.6 Moody's ratings on Asian sovereign bonds, April 2003

	Government bonds		
	Foreign	Domestic	Risk category
Singapore	Aaa[5]	..	
Chinese Taipei	Aa3[5]	A3	
Japan	Aa1	Aa3[5]	
Hong Kong	A3[5]	A3[5]	
Macau	A3[5]	A2	Investment grade
China	A3	Aa3	
Korea	A3	Aaa	
Thailand	Baa3	Baa1	
Malaysia	Baa1	A3	
Philippines	Ba1	Baa3	Not investment grade
Indonesia	B3[5]	B3	
Vietnam	B1[5]	..	

Source: Moody's ratings (April 2003).

ratings.³ The ratings on sovereign debts represent the lowest credit risk of the countries concerned. If a country has its sovereign debt at the bottom of an investment grade, its domestic corporations will struggle to gain investment-grade status and the bonds they issue will have to be sold on the high-yield bondmarket, where demand is limited.

Investors in the high-yield bondmarket have different risk preferences, and tend to look for high returns to compensate for the high risks taken. High-yield bonds in the United States can give investors returns both from bond yields and from drastic surges in bond prices caused by mergers and acquisitions. In comparison with high-yield bonds in the United States, Asian corporate bonds may not be attractive to investors. Also, the US high-yield bondmarket provides better information about corporate governance, better liquidity in the secondary market, more historical data for credit analysis and clearer legal protection for investors in case of insolvency. In short, to accelerate the growth of Asian corporate bonds, Asian governments need to lift the quality of these assets to investment grade.

On the supply side, let us suppose that many less risk-averse investors were prepared to invest in Asian corporate bonds. Would this result in the fast growth of Asian corporate bonds? The answer is negative. Yield spreads, representing the borrowing costs of bond issuers, for emerging sovereign bonds, high-yield bonds in the United States and investment-grade bonds are shown in Table 4.7. EMBI+ is an emerging market bond index developed by JPMorgan; it measures the borrowing costs of developing economies, mainly in Latin America. In recent years, EMBI+ has stayed at around 7.5 per cent. The Merrill Lynch US High Yield index measures the yield spreads of US high-yield bonds. It has stayed at around 8 per cent in recent years. Both

Table 4.7 Yield spreads of emerging sovereign bonds and other bonds, 2000–2002 (spread in basis points)

	2000	2001	2002
EMBI+	756	731	765
Merrill Lynch US High Yield	871	734	802
Salomon Broad Investment Grade	89	78	62
US 10-year Treasury yield (per cent)	5.12	5.07	3.83

Source: International Monetary Fund, 2003. *Global Financial Stability Report: market developments and issues*, March, International Monetary Fund, Washington, DC. Available online at <http://www.imf.org/External/Pubs/FT/GFSR/2003/01/index.htm>.

emerging market debts and high-yield bonds are rated at speculative grade. If an Asian corporation issues bonds, its funding costs will be as high as 12 per cent (US T-bond yield, 4 per cent, plus yield spread, 8 per cent). Asian corporations with lower credit ratings may need to pay a yield of over 18 per cent. Will Asian corporations still be able to make profits with such high funding costs? Many Asian corporations are able to acquire bank loans at low interest rates of 5–10 per cent, thanks to collateral pledged with the loans. Poor credit ratings do not motivate Asian corporations to issue unsecured bonds.

Generally speaking, the availability of credit ratings does not necessarily facilitate the growth of Asian corporate bonds, since it does not increase either demand or supply. Ideally, there should be Asia-based rating agencies. But even Asia-based rating agencies would not be able to solve the immediate problem of an Asian bondmarket, especially given the length of time it would take to build brand names and reputations. Given the dominance of international rating agencies, a battle for dominance between regional and international rating agencies would so prolong the time needed to establish an Asian bondmarket that the market would lose its viability.

One immediate solution to the problem of Asian corporate bond growth is credit enhancement, which aims to transform Asian corporate bonds into investment-grade assets to suit the appetite of both international and domestic institutional investors. Most of the recent examples of credit enhancements fall into the categories discussed below.

Credit insurance and credit insurers

Credit insurance, or credit guarantee, can take the form of bond insurance, letter of credit, corporate guarantee or government guarantee. Bond insurance is widely used in the US municipal bondmarket. Municipal bonds are debt instruments issued by state, provincial and city governments. More than 50,000 state and local government units in the United States issue securities to raise funds for their infrastructure projects, schools, hospitals and other public purposes. Municipal bonds are subject to many risks, such as earthquakes, floods, tornadoes, environmental hazards and other natural disasters. To make municipal bonds attractive to risk-averse bond investors, interest payments and principal repayments are usually guaranteed by AAA-rated insurers. When an insured bond defaults, the insurer immediately makes the scheduled payments to the bond investors. In the United States, some insurance companies are deliberately established to serve as financial guarantors and credit insurers, and primarily insure municipal bonds and other debt obligations (Table 4.8). Many of them are active in the reinsurance

market, where they swap and share credit insurance risks with other companies. These monoliners are regularly rated by credit rating agencies for their asset concentration, risk management system, management quality and financial strengths. In recent years, multiline insurance companies with several business lines have also begun to compete in the credit insurance market, thus diversifying their business and insurance risks. Some Asia-based insurance companies are also active participants in the business of credit insurance.

A letter of credit, also known as a bank guarantee, is a traditional form of credit insurance. Many top-rated banks guarantee their corporate clients in

Table 4.8 Fitch IBCA ratings of US financial guarantors and reinsurers

	Fitch financial strength ratings
ACA Financial Guaranty Corp.	A
ACE Capital Mortgage Reinsurance Co.	AA
ACE Capital Re International Ltd	AA
ACE Capital Re Overseas Ltd	AA
ACE Capital Title Reinsurance Co.	AA
AXA Re Finance SA	BBB
Ambac Assurance Corp.	AAA
Asian Securitization and Infrastructure Assurance Ltd	BBB
CDC IXIS Financial Guaranty (CIFG)	AAA
CDC IXIS Financial Guaranty Europe (CIFG Europe)	AAA
CDC IXIS Financial Guaranty North America, Inc.	AAA
Capital Guaranty Insurance Company	AAA
Capital Markets Assurance Corp. (CapMAC)	AAA
Commercial Guaranty Assurance Ltd (CGA)	AA
Connie Lee Insurance Co.	AAA
Financial Guaranty Insurance Co.	AAA
Financial Security Assurance International Ltd	AAA
Financial Security Assurance UK Ltd	AAA
Financial Security Assurance, Inc.	AAA
MBIA Assurance SA	AAA
MBIA Insurance Corp.	AAA
MBIA Insurance Corp. of Illinois	AAA
Radian Asset Assurance Inc.	AA
Radian Reinsurance Inc.	AA
XL Capital Assurance (UK) Ltd	AAA
XL Capital Assurance Inc. (XLCA)	AAA
XL Financial Assurance Ltd (XLFA)	AAA

Source: Fitch IBCA Ratings, April 2003.

their issuance of medium-term notes and bonds. In the past, banks benefited from offering their clients guarantees instead of loans, since this took credit risk off their balance sheets and reduced capital charges. This advantage has since disappeared, with current bank regulations' inclusion of bank guarantees in the calculation of capital charges. In addition to banks, well-rated corporations and governments can offer credit insurance or credit guarantee to bond issuers.

Credit insurance could be an efficient way of enhancing the credit quality of Asian corporate bonds. Although insurers would bear the credit risk, they could reduce their risk by overcollateralisation, diversification, reinsurance, securitisation⁴ and other techniques.⁵ The insurance premiums to be charged greatly depend on the amount of credit risk the insurers finally undertake. A top-rated bank can guarantee an Asian corporate bond by requesting collateral from the bond issuer for the guarantee provided, making the credit guarantee similar to a mortgage loan. In this arrangement, investors will enjoy a yield close to that of a bond issued by the bank, while the bond issuer will pay a yield cost close to that paid for a mortgage loan. However, insured bonds provide additional benefits. First, bond issuers can raise funds directly from the capital market, where more lenders and investors are present, potentially lowering funding costs. Second, issuers can gradually build their reputation in the capital market, a process that may lower their borrowing costs in the long run. Third, the insured bonds may reduce issuers' borrowing costs because of the lower liquidity risk undertaken by investors. Fourth, the insured bonds facilitate the development of a market with investment-grade assets. Fifth, a bank that has too much credit risk with a single borrower may transfer its credit risk to credit insurers, obtaining commission through the sale of credit business to the insurers. Such a mechanism enables banks to diversify their risk and rebalance their credit portfolios.

International, regional and domestic credit insurers

In order for Asian corporate bonds to be transformed into investment-grade assets, top-rated credit insurers and banks must be present in the Asian credit insurance market. In many cases, top-rated insurers do not offer credit insurance to bond issuers or debt obligators with very poor or no credit rating. In this case, governments, domestic banks or domestic credit insurers in Asia may offer partial or full guarantees on issuers,⁶ thus making it more likely that top-rated insurers will insure them. The insurance premium involved will be shared by domestic insurers and top-rated international insurers. Domestic credit insurers can be government-sponsored institutions. For instance, many countries have established export insurance corporations and deposit

insurance corporations. These insurers are mostly government-sponsored institutions operating on a self-financing basis.

Meanwhile, Asian governments can facilitate the emergence of Asia-based credit insurers. In 1995, the Asian Development Bank established the first regional bond insurance company in Singapore, known as Asian Securitization and Infrastructure Assurance (ASIA) Ltd. Ownership of this company came from financial institutions, ADB member economies, insurance companies and other organisations. In its early stages, the US monoliner Capital Markets Assurance Corporation subscribed 30 per cent of its capital. ASIA Ltd. primarily offers credit insurance to infrastructure projects of developing economies. In 2003, Fitch IBCA gave ASIA Ltd an investment grade of BBB (Table 4.8).

Once a sufficient number of top-rated, regional and domestic credit insurers are present, the reinsurance market should develop spontaneously. For instance, domestic insurers can insure a debt obligator for it to gain credit insurance from a top-rated insurer, while a top-rated insurer can reduce its risk by selling its stake in an insurance contract to regional and domestic insurers. An active market of credit insurance and credit reinsurance tends to result in rapid growth in credit derivatives and insurance-linked securities. These instruments provide effective tools for credit insurers and banks to diversify and hedge their credit risk effectively. With more tools to hedge credit risk, international investors, top-rated insurers and top-rated financial institutions will be more willing to take their stakes in the Asian credit market.

Asset securitisation and asset-backed securitisation corporations

Asset securitisation involves the pooling of many small assets into a trust (or special-purpose company), units of which are then sold to many investors in the form of asset-backed securities. Asset securitisation is frequently applied to debts, such as residential mortgage loans, commercial mortgage loans, credit-card loans, high-yield bonds, leasing revenue, credit derivatives (or credit insurance) and non-performing loans. It also applies to real estate, rent income, airfare revenue and telephone services revenue.

Securitised debts offer several benefits to investors. First, they allow investors to easily invest in a well-diversified portfolio composed of many debts. Second, they are mostly insured through a pool-insurance policy, in which an insurer bears the credit risk of the debts in the portfolio. Because of risk diversification and the attachment of credit insurance policies, securitised debts mostly gain credit ratings at investment grade.

Over the past few years, Asian securitisation has developed very slowly. In relative terms, Korea has been most active in Asia in 2000–01 in asset

securitisation (Table 4.9). In 1998, Korea enacted a package of laws, known as the Securitisation Act, providing a simple and effective legal framework for asset securitisation, thus facilitating the securitisation of non-performing bank loans and the restructuring of the balance sheet of nearly insolvent corporations.

Securitisation of Asian corporate bonds

A simple way of transforming Asian corporate bonds into investment-grade assets is to pool them to become securitised corporate bonds. In the United States, collateralised debt obligation, which is a form of securitised debt, grew very fast after the mid 1990s. Collateralised debt obligation can include collateralised loan obligation and collateralised bond obligation, both of which are insured by pool insurance policies.⁷ Collateralised bond obligations are securities backed by a pool of high-yield bonds; as such, they satisfy the market demand for high-yield assets with credit protection. Collateralised loan obligations are securities backed by a pool of bank loans. Issuance of collateralised loan obligations enables commercial banks to put their assets off their balance sheets and thus reduce their regulatory capital requirements.

Issuance of Asian collateralised bond obligations can drastically increase the supply of investment-grade debt securities in Asia. Because top-rated, regional and domestic credit insurers insure the cash flows from the bonds, collateralised bond obligations are safe assets. A large asset pool of collateralised bond obligations (CBO) can be listed and traded on the exchange or in the over-the-counter market. In 2000, Korea introduced the Primary CBO Guarantee Program via the Korea Credit Guarantee Fund. This collateralised bond obligation program fills the credit-quality gap between bond issuers and bond investors. The securitisation of Asian corporate bonds benefits many parties, namely the Asian corporations that issue the bonds, the originators that structure the collateralised bond obligations, the insurers that offer the credit insurance and the countries that obtain capital inflows.

Establishment of asset-backed securitisation corporations

Who should be an originator of collateralised bond obligations? Currently, international market players are reluctant to take a proactive role in Asian securitisation because the regulations that should protect their interests are still unclear. The Asian Bankers Association (2003) has suggested a number of ways to promote asset securitisation in Asia, including standardisation of contracts, development of secondary markets, development of the market for credit default swaps, and strengthening of mortgage origination, underwriting and servicing standards. To facilitate the growth of market forces in the long

Table 4.9 Asset securitisation in Asia, 2000–2001

Issue date	Region/country	Originator/issuer	Underlying asset
April 2001	Hong Kong	Commercial Plaza Sec Ltd	Commercial properties
April 2001	Korea	Credit Creator Ltd	Auto loans
February 2001	Korea	HAN LSP (KDB) Plc	Credit derivatives
January 2001	Korea	OZ Receivables	Air-fare revenues
December 2000	Hong Kong	HK Synthetic MBS Co. Ltd	Commercial properties
September 2000	Singapore	Pioneer Export Funding Ltd	Trading assets
October 2000	Hong Kong	Commercial Plaza Sec. Ltd	Commercial properties
August 2000	Multiple	United Asian CBO 1 Ltd	Loans and bonds
August 2000	Korea	HAN LSP (KDB) Plc	Credit derivatives
August 2000	Korea	Korea Asset Funding Corporation	Loans and bonds
April 2000	Korea	Sogeko Funding Corporation	Equipment lease assets
April 2000	Korea	KDBC Leasing Receivables 1 Plc	Equipment lease assets

Source: Ikeya, Makoto, 2001. 'Securitization market in Asia (excluding Japan) stalls: public commitment and initiatives to be tested', R&I Asian Focus Special Report, Ratings and Investment Information Inc., Tokyo. Available online at http://www.r-i.co.jp/eng/release/nr_international/asia010904.pdf.

run, Asian governments can take a lead in coordinating the development of the asset-backed securities market. Korea's Primary CBO Guarantee Program is a good example of governmental efforts in asset securitisation. Another example is Hong Kong's Mortgage Corporation, a subsidiary of the Hong Kong Monetary Authority, which deals with mortgage securitisation and operates on a completely self-financing basis. Asian governments should follow such examples and set up government-sponsored asset-backed securitisation corporations to deal with bond and loan securitisation. In the United States, most residential mortgage loans are securitised through government-sponsored mortgage corporations, while other debt obligations, such as commercial mortgages and credit card receivables, are securitised through financial institutions.

The proposed asset-backed securitisation corporations could deal with asset pools throughout the Asian region or within individual Asian countries, aiming to coordinate and facilitate securitisation processes. For instance, they could recommend changes in legal frameworks to facilitate asset securitisation, establish standardised procedures to acquire sovereign debts, corporate bonds and other assets into their asset pools, arrange pool insurance contracts with recognised credit insurers, and distribute asset-backed securities through investment banks and commercial banks. Meanwhile, they could strategically initiate asset-backed securities of different risk profiles, such as country-based collateralised bond obligations, industry-based collateralised bond obligations, Asian sovereign asset-backed securities and other asset-backed securities, to meet the diverse needs of domestic and international investors. An additional advantage of securitisation is that it can easily transform a pool of domestic securities into international securities, when currency swaps are included in the asset pools.

Asset-backed securitisation corporations could play the role of advisers and intermediaries in the market. This would accelerate the growth of investment-grade debt securities in Asia, and thus assist in retaining Asia's wealth in the form of individual savings, pension funds and provident funds.⁸ It would attract international capital into the Asian market.

Investor base and Asian bond funds

Another issue related to Asian sovereign and corporate bonds is investor base. A successful bondmarket needs a diverse investor base to ensure diversity in its funding sources. For example, the US Treasury securities market is a successful market because it attracts a wide range of investors. The investor base for Asian sovereign and corporate bonds, on the other hand, is currently very narrow.

In recent years, the proportion of international investors in the US Treasury securities market has grown to around 35 per cent (Table 4.10). Domestic institutional investors, including pension funds, mutual funds, banks and insurance companies, remain dominant. The proportion of individual investors has remained unchanged at around 12 per cent for the past 20 years. Credit enhancement mechanisms, namely credit insurance and asset securitisation, should encourage increased participation of institutional and international investors in Asian debts. Meanwhile, Asian governments should explore ways to facilitate the participation of individual investors in the Asian bondmarket. One simple way to do this is to develop bonds of smaller value to offer to the general public.⁹ Another way is to promote mutual funds that invest primarily in Asian corporate bonds. This would encourage the general public to invest in a well-diversified portfolio of Asian corporate debts.¹⁰

To facilitate the participation of individual investors in the Asian bondmarket, the government bond fund could be further securitised to become a closed-end or open-end fund. Such a securitised Asian bond fund could be sold both to the general public in Asia and to global institutional investors. Assets in the bond fund should be insured bonds and loans to minimise the credit risk for individual investors. A securitised Asian bond fund would dramatically enlarge the investor base for Asian debt securities. Also, it would become an actively traded asset in the market due to its large market capitalisation and large number of individual and institutional investors. This liquid bond fund would nurture relevant financial derivatives and thus help international investors and credit insurers hedge their credit and market risk in Asia.

Conclusion

Asian governments have made considerable progress in government bond issuances in recent years. However, very little progress appears to have been made in disintermediation. This is because, at this stage, Asian corporate bonds remain underdeveloped. The key problem for the Asian corporate bondmarket is its lack of credit ratings at investment grade. Without the status of investment grade, Asian corporate bonds will struggle to gain access to international and domestic institutional investors, and the growth of the Asian corporate bondmarket will be slow. Three key institutional foundations are crucial to accelerate the growth of Asian corporate bonds: credit insurance, securitisation and Asian bond funds. The first two would transform Asian corporate bonds into investment-grade assets, while the third would enlarge the corporate bonds' investor base.

Table 4.10 Ownership of US Treasury securities, 1982–2002 (US\$ billion, per cent)

	Total holdings (US\$ bn)	Individuals (per cent)	Mutual fund/ trusts (per cent)	Banking institutions (per cent)	Insurance companies (per cent)	US monetary authorities (per cent)	State and local govts (per cent)	Foreign and international (per cent)	Pension fund (per cent)	Others (per cent)
1983	1,056.7	13.4	4.4	20.2	4.4	14.3	10.8	15.5	13.5	3.6
1982	886.1	11.4	7.3	18.2	3.5	15.3	11.6	17.0	12.7	3.1
1984	1,244.8	14.4	4.8	19.0	5.2	12.8	10.0	16.1	14.2	3.6
1985	1,444.3	11.9	7.0	15.7	5.6	12.3	13.6	15.7	14.6	3.7
1986	1,606.4	9.0	9.3	15.4	6.3	12.3	13.3	16.8	13.4	4.2
1987	1,714.5	10.2	8.7	13.8	6.3	13.0	13.3	17.3	13.8	3.7
1988	1,825.2	14.1	8.2	10.3	6.5	12.8	11.9	19.4	13.3	3.5
1989	1,950.5	12.5	8.2	11.6	6.4	11.6	10.8	21.7	13.3	3.9
1990	2,178.4	15.4	9.3	9.8	6.3	10.8	11.4	20.1	12.9	3.9
1991	2,461.6	14.0	10.7	11.3	7.4	10.8	11.3	19.3	11.4	3.9
1992	2,746.5	14.3	10.9	12.4	7.2	10.7	9.5	18.9	11.2	4.8
1993	2,988.5	13.8	11.2	11.5	7.8	11.1	10.0	19.9	10.8	3.8
1994	3,148.2	19.1	9.9	9.4	7.6	11.6	7.4	20.1	11.1	3.7
1995	3,310.3	16.6	9.8	10.1	7.3	11.4	5.3	25.4	10.1	3.9
1996	3,472.6	19.7	7.3	8.2	6.2	11.3	4.6	30.2	9.9	2.7
1997	3,467.9	16.8	7.3	8.5	5.1	12.4	3.7	33.5	10.4	2.4
1998	3,372.7	16.3	8.0	7.5	4.2	13.4	3.1	35.1	9.8	2.6
1999	3,298.2	19.9	7.5	6.2	3.7	14.5	3.0	32.8	9.7	2.7
2000	3,019.5	14.9	7.9	6.6	3.6	16.9	2.7	34.0	10.1	3.3
2001	3,016.2	12.4	8.9	6.3	3.5	18.3	3.7	34.5	9.3	3.1
2002 ^a	3,218.4	12.0	9.0	6.9	3.6	19.6	2.5	35.4	8.8	2.2

^a Estimates of Bondmarket Association.

Source: Bondmarket Association of the United States 2003.

Credit insurance and asset securitisation have been hot issues in Asia for the past two years. However, as highlighted by former vice-president of the Asian Development Bank, Myoung-Ho Shin (2003), Asia's markets for securitisation and credit insurance remain underdeveloped. To attract the presence of top-rated credit insurers in Asia, Asian governments should support the development of regional and domestic credit insurers, and these, in turn, would nurture the development of a reinsurance market and enable the growth of credit derivatives and insurance-linked securities. With more tools to hedge credit risk in Asia effectively, international investors, top-rated credit insurers and top-rated financial institutions will find it safer and more attractive to enter the Asian credit market.

Asset securitisation is another way to transform Asian corporate bonds into investment-grade assets. Government-sponsored asset-backed securitisation corporations should be established to facilitate asset securitisation. These asset-backed securitisation corporations could standardise the contracts or procedures for acquiring assets in asset pools, soliciting credit insurance contracts and distributing asset-backed securities. A crucial factor in the success of Eurobonds, medium-term notes and asset-backed securities in Europe and the United States is their standardised contracts or procedures for securities issuance. Standardised contracts, procedures and legal documents that have passed extended and consultation can reduce transaction costs and increase investor confidence.¹¹

A solid investor base is another important factor in the development of Asian corporate bonds. An Asian bond fund supported by Asian governments will no doubt strengthen the demand for Asian corporate bonds, but it will not widen investor base in the long run. A desirable strategy is to securitise the government-based bond fund into a mutual fund sold to individual and institutional investors. Such a fund would invest primarily in insured debt securities, exposing its investors to very little credit risk.

In this era of globalisation, an Asian bondmarket needs to meet the needs of both international and domestic investors, all of whom are rational and able to make global comparisons. Asian governments need to ensure the supply of investment-grade assets if they want to build their bondmarkets, and credit enhancement is an immediate and effective way to reach this goal.

Notes

¹ The International Monetary Fund and the World Bank co-published a handbook on developing government bonds (World Bank/International Monetary Fund 2001), while the Asian Development Bank offered training programs for central bankers on developing domestic bondmarkets in APEC member countries (Asian Development Bank 1999).

- ² The trading of American Depository Receipts is settled via investment banks of the United States, meaning that it may not be necessary to have a centralised system for custodianship and clearing of Asian bonds.
- ³ Some Asia-based ratings agencies tend to give more favourable credit ratings to Asian sovereign debts; the fact is, however, that most global investors base their investment decisions on Moody's and Standard & Poors' ratings.
- ⁴ Many insurance contracts are securitised and thus transformed into insurance-linked securities. Through this mechanism, insurance companies can offload their insurance risks, which are taken on by investors in insurance-linked securities. If no contingent claims occur, the investors earn high yields. For more detailed explanations of insurance securitisation, see Borden and Sarkar (1997), Canter, Cole and Sandor (1997) and Latza (1997).
- ⁵ An insurer can hedge the country risk of its pool of credit insurance. Sharp rises in credit defaults in a country are generally linked to sharp falls in that country's equity index and exchange rates. The insurer can buy put options on a country's equity index or exchange rate to reduce the country risk involved. On the other hand, if the insurer wants to hedge the credit risk on a corporate bond, it can buy put options on the equity of the corporation that issues the bond. Alternatively, it can issue equity-linked securities to hedge its credit risk. Since 2000, equity-linked notes have become very popular in Hong Kong among both institutional and individual investors, indicating that the high demand for equity-linked notes is due to the high yields they offer to investors.
- ⁶ Some governments in Asia provide guarantee schemes to support the financing of business firms. For instance, Korea has set up a fund to guarantee the issuance of asset-backed securities, while Hong Kong offers partial guarantees to small and medium-sized enterprises to enable them to acquire loans from banks.
- ⁷ Details about high-yield bonds and collateralised bond obligations can be found in Barnhill, Maxwell and Shenkman (1998) and Goodman and Fabozzi (2002).
- ⁸ Singapore's Central Provident Fund invests mainly in Singapore government securities, which the government issues in spite of the fact that it has no need for debt financing, having generated fiscal surpluses since Singapore gained independence in 1965. This means that the Central Provident Fund is a dead weight in the government bonds market, since it holds 70 per cent of Singapore government securities but as a passive national custodian of pension funds is under no pressure to produce competitive returns for its members (Ng 2000). A similar situation occurs in Hong Kong SAR, where mandatory provident funds invest heavily in Exchange Fund Bills and Notes while the government has no need for debt financing. Such Asian provident funds could easily drive the growth of insured corporate bonds or securitised corporate debts if there were mechanisms to facilitate their presence in the region.
- ⁹ The Hong Kong Monetary Authority issues Exchange Fund Bills and Notes that are similar to US Treasury securities. Their investors are mainly institutional investors. In 2000, the Hong Kong Monetary Authority began to issue Exchange Fund Notes of smaller size (around US\$7,000 per contract) to the general public, thus helping to enlarge the investor base of government bonds.
- ¹⁰ In 1998, the Hong Kong government intervened in the equity market to counterbalance the attacks of global hedge funds. The equities purchased were securitised in a fund known as the Tracker Fund. All the units of the fund were later sold to both institutional and individual investors. Thus, Asian governments can take proactive roles in asset securitisation so as to adapt sovereign and corporate debts to the investment needs of the general public.
- ¹¹ In case of insolvency, the enforceability of financial contracts is subject to the jurisdictions concerned. Cross-border insolvency arrangements can be complicated enough to increase legal uncertainty even in advanced economies (Bank of International Settlements 2002). In certain developing countries in Asia, insolvency arrangements and contract enforceability are made extremely uncertain by the very small number of available procedures. Guarantees on emerging economies' corporate bonds provided by international insurers will offer greater comfort to international investors than relevant laws enacted in the emerging economies themselves.