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6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel +63 2 632 4444
Fax +63 2 636 4444
www.adb.org

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The *Asia Bond Monitor* (ABM) reviews recent developments in East Asian local currency bond markets along with outlook, risks, and policy challenges. It covers the 10 members of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; and the Republic of Korea.

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How to reach us:
Asian Development Bank
Office of Regional Economic Integration
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
Tel +63 2 632 6688
Fax +63 2 636 2183
E-mail: asianbonds_feedback@adb.org

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Emerging East Asian Local Currency Bond Markets: **A Regional Update**

Highlights

- The economies of emerging East Asia face a weakened external environment and an increasingly uncertain regional outlook.[1] Uncertainty over policy actions and institutional reforms to resolve the sovereign debt crisis in Europe and mixed data signals from the United States (US) have kept investors on edge. Worries about a larger-than-expected slowdown in the People's Republic of China (PRC) have added to the fears of sharply lower growth in the region.

- These developments, along with softening external demand, have strengthened the case for regional economies to adopt countercyclical measures to boost domestic demand and investment, including increased issuance of government bonds.

- Hints of further stimulus measures in mature markets if conditions warrant have sparked fears of fresh capital inflows into emerging East Asian capital markets.

- Despite the heightened risk and volatility in global markets, emerging East Asia's local currency (LCY) bond markets made impressive gains in the first half of 2012. Total bonds outstanding rose 1.9% quarter-on-quarter (q-o-q) and 8.6% year-on-year (y-o-y) to reach US$5.9 trillion at end-June. The q-o-q growth of corporate bonds at 3.1% outpaced the 1.3% growth in government debt.

- Most of the region's LCY government bond yield curves shifted downward in the first half of 2012. But yields edged up in July–August for all tenors in the PRC, Indonesia, and Viet Nam, and for most tenors in Malaysia; Singapore; Thailand; and Hong Kong, China as uncertainty in financial markets and the real sector deepened.

- Foreign holdings of local government bonds leveled off in Indonesia in the first half of 2012, but increased in Malaysia and Thailand. Meanwhile, foreign fund inflows into government securities in the Republic of Korea have been volatile in recent months.

- The risks to the region's LCY bond markets include (i) additional stimulus measures leading to increased government bond issuance, (ii) volatile capital flows, and (iii) worsening investor sentiment as the global economic outlook dims.

Impact of Crisis on Local Bond Markets

Our analysis shows that while the growth of individual bond markets in recent years has been impressive, the threat of financial contagion to emerging East Asia's LCY bond markets from shock and volatility spillovers in mature markets is real.

- Although Asian volatilities are more determined by domestic shocks and volatilities, in some countries the spillovers from the US and European crises remain significant. During the Lehman crisis, shock spillovers affected five Asian countries: the PRC, the Republic of Korea, Malaysia, the Philippines, and Thailand. During the eurozone crisis, the spillover affected three countries: the PRC, Indonesia, and Thailand. The strongest shock spillover effects during the eurozone crisis have been experienced by the PRC.

- The volatility spillovers have had a significant effect in Asia during the eurozone crisis, especially among corporate bond markets in the Philippines and Thailand.

[1] Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

- The "own-shock" persistence in Thailand and the Philippines was stronger during the Lehman crisis than the eurozone crisis; in other countries—Indonesia, the Republic of Korea, Malaysia—the effect of eurozone crisis has been stronger.

- All countries in emerging East Asia have shown significant volatility persistence during the two crises, but volatility in the EU high-yield corporate (financial) bond market resulted in significant volatility persistence only in the PRC, Indonesia, the Republic of Korea, and Malaysia.

- Greater regional participation and cooperation in emerging East Asia's bond markets are needed to counter the volatility from external shocks and to strengthen regional financial safety nets.

Introduction: **Global and Regional Market Developments**

Emerging East Asian economies face a weakened external environment and an increasingly challenging regional outlook.[2] Uncertainty over policy actions to resolve the sovereign debt crisis in Europe and mixed data on the sluggish United States (US) economy have kept investors on edge.

Softening external demand has narrowed current account surpluses and dragged down growth in emerging East Asia. Worries about a larger-than-expected slowdown in the People's Republic of China (PRC) are raising fears of sharply lower growth in the region generally. Authorities across the region are looking at countercyclical measures—such as increasing public spending and monetary easing—to boost domestic demand and investment.

Despite the weakening global outlook, concerns over sustaining regional growth, and risk-on/risk-off market sentiment, investor perceptions of regional capital markets have remained favorable **(Table A)**. Credit default swap (CDS) markets **(Figures A, B)** and tightening emerging market bond spreads **(Figure C)** show market confidence. CDS spreads for emerging East Asia and major European markets have moved in somewhat different directions since the beginning of 2012.

CDS spreads for emerging East Asia have generally moved downward, while CDS spreads in much of Europe have tended to rise.

Table A: Changes in Global Financial Conditions, 1 April to 31 July 2012

	2-Year Government Bond (bps)	10-Year Government Bond (bps)	5-Year Credit Default Swap Spread (bps)	Equity Index (%)	FX Rate (%)
Major Advanced Economies					
United States	(12)	(74)	0	(2.1)	–
United Kingdom	(33)	(33)	(6)	(2.3)	(2.1)
Japan	(2)	(2)	(7)	(13.3)	(5.7)
Germany	(30)	(30)	(3)	(2.5)	(7.8)
Emerging East Asia					
China, People's Rep. of	(52)	(23)	0.2	(7.0)	1.0
Hong Kong, China	(4)	(57)	4	(3.7)	(0.1)
Indonesia	40	(23)	6	0.5	3.5
Korea, Rep. of	(68)	(82)	(3)	(6.6)	(0.2)
Malaysia	(7)	(27)	12	2.2	2.1
Philippines	(55)	(39)	(1)	3.9	(2.7)
Singapore	2	(26)	0	0.9	(1.0)
Thailand	(19)	(55)	7	0.2	2.2
Viet Nam	(234)	(111)	–	(6.0)	0.1
Select European Markets					
Greece	(3,788)	(1,298)	0	(17.9)	(7.8)
Ireland	(0.3)	(70)	(57)	(2.6)	(7.8)
Italy	121	96	95	(13.1)	(7.8)
Portugal	(494)	(125)	(349)	(15.6)	(7.8)
Spain	271	136	108	(15.9)	(7.8)

– = not available, ( ) = negative, bps = basis points, FX = foreign exchange.
Notes:
1. For emerging East Asia, positive value for FX rate means depreciation of local currency against US dollar.
2. For European markets, positive value for FX rate means appreciation of local currency against US dollar.
Source: Bloomberg LP, Institute of International Finance (IIF), and Thomson Reuters.

[2] Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

Figure A: Credit Default Swap Spreads[a, b]
(senior 5-year)

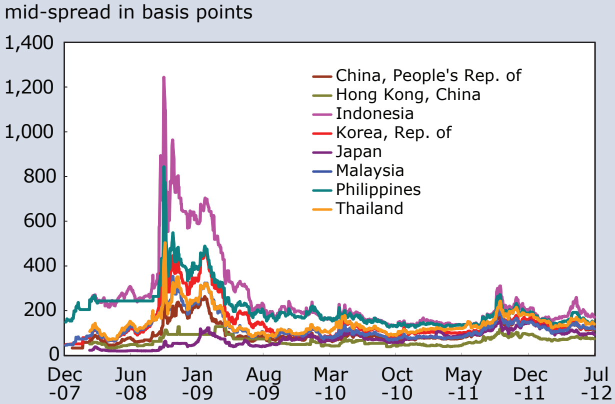


Figure B: Credit Default Swap Spreads for Select European Markets[a, b] (senior 5-year)

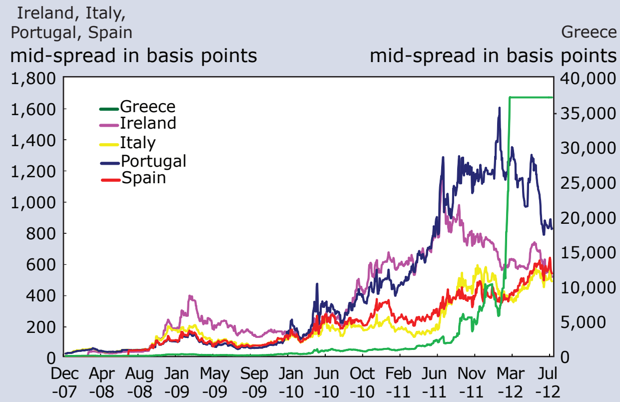


Figure C: US Equity Volatility and Emerging Market Sovereign Bond Spreads[b]

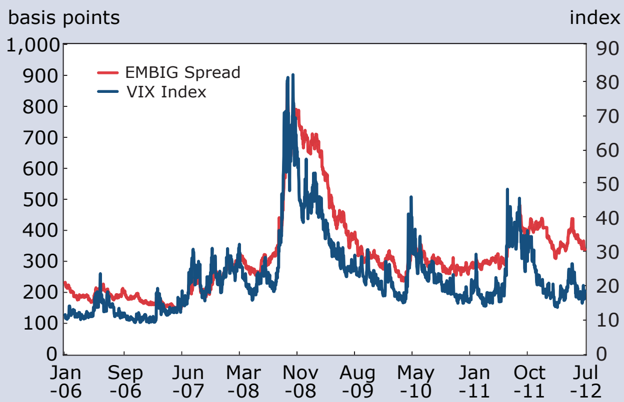


Figure D: 10-Year Government Bond Yields
(% per annum)

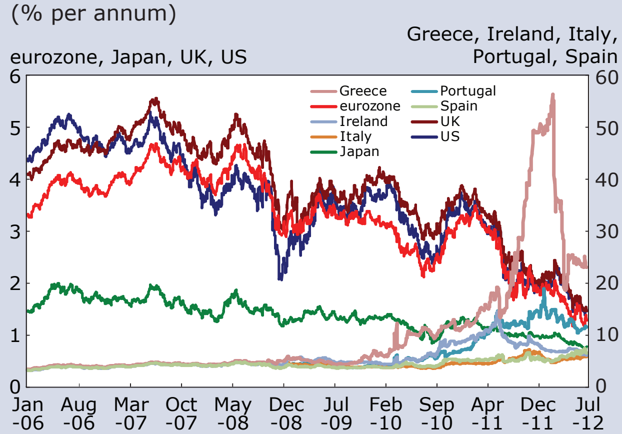


Figure E: JPMorgan EMBI Sovereign Stripped Spreads[a,b]

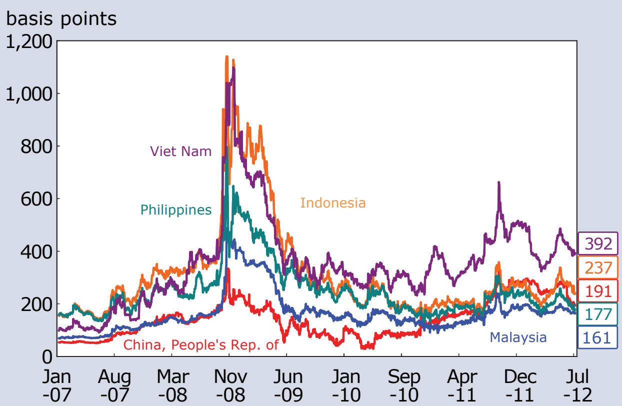
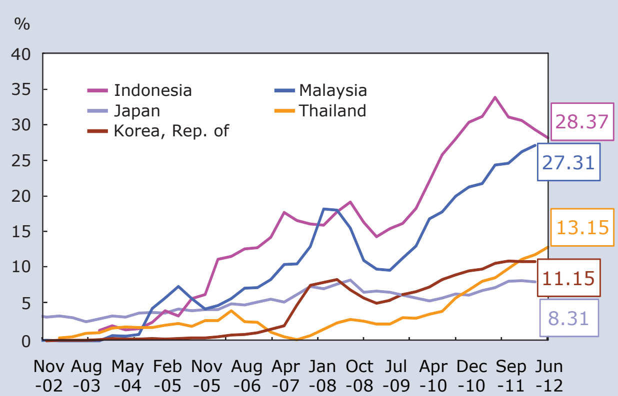


Figure F: Foreign Holdings of LCY Government Bonds in Select Asian Economies (% of total)



EMBI = Emerging Market Bond Index, EMBIG = Emerging Markets Bond Index Global, UK = United Kingdom, US = United States, VIX = Chicago Board Options Exchange Volatility Index.

Notes:

[a] In US$ and based on sovereign bonds.

[b] Data as of 31 July 2012.

Source: *AsianBondsOnline*, Bloomberg LP, and Thomson Reuters.

Yields on government bonds in mature markets continue to drop and fluctuate within a narrow range. Yields in mature markets in the first 7 months of 2012 fell to their lowest levels in recent years **(Figure D)**. Yields for government bonds in Spain and Italy have risen modestly, but have been less volatile than the yields for Greek and Portuguese bonds.

This overall trend largely reflects continued investor demand for safe assets,[3] and significantly reduced inflationary pressures since the middle of last year. This has allowed central banks in emerging East Asia to reduce policy interest rates. Yields on the region's local currency (LCY) bonds (and in emerging markets generally) have trended downward since the start of the year. These trends are reflected in narrowing emerging market bond spreads **(Figure E)**.

But yields have edged up in July and August for all tenors in the PRC, Indonesia, and Viet Nam.

Poor or uncertain prospects in Europe and the US, as well as near-zero policy interest rates, have pushed global investors to seek better yields in emerging East Asian debt markets.

Foreign holdings in the region's LCY government debt markets have been mixed, with the share of foreign holdings rising in Thailand and Malaysia, while falling in Indonesia **(Figure F)**. Foreign investors now hold over 27% of Malaysian government bonds and over 13% of Thai government bonds. The share of foreign holdings of Indonesian government debt has dropped to 28.4% in 2Q12 from 30.8% at end-2011.

Foreign holdings of government bonds in the Republic of Korea have been relatively stable at around 11% of total holdings, since late last year, but monthly net investment inflows into the Republic of Korea's bond market have remained volatile in recent months.

Total bonds outstanding in emerging East Asia's LCY bond market rose 1.9% quarter-on-quarter (q-o-q) and 8.6% year-on-year (y-o-y)—totaling US$5.9 trillion at end-June. However, intraregional debt holdings in the region remain low. Cross-border debt investments in the region during 2010 were 7.2% of the regional total of US$3.29 trillion, up slightly from 4.2% in 2001.[4]

Corporate bond growth continues to outpace that of government bonds as lower yields and tighter bank lending ahead of new bank regulations in many markets is encouraging firms to raise funds from local markets.

At end-December 2011, emerging East Asia's share of the global bond market was 8.4% **(Table B)**, up from 8.1% at end-September 2011. The PRC and the Republic of Korea remained the two largest bond markets in the region outside of Japan, with global shares of 5.0% and 1.8%, respectively. Comparisons of LCY government bonds outstanding (excluding central banks and monetary authorities) in emerging East Asia with the more prominent emerging markets of Latin America, Eastern Europe, and Africa are shown in **Figure G**. Considering only government bonds, Brazil and India are the second and third largest markets, respectively. They follow the PRC and precede the Republic of Korea, which is followed by Mexico as the fifth largest emerging market globally. The other more prominent emerging markets—such as Poland, South Africa, Turkey, and Russia—have government bonds outstanding that are broadly comparable with those in Southeast Asia.

Risks to the region's LCY bond markets have tilted to the downside:

(i) **Prospects for more stimulus policies.** The weakening external environment and softened demand for regional exports has led to a discernible decline in current account surpluses in some economies, thus dragging down growth. This has strengthened the case for countercyclical policies to boost domestic demand and investment to reinvigorate growth, including increased issuance of government bonds.

[3] Market perception of "safe assets" has evolved since the 2008/09 global financial crisis—particularly since Europe's sovereign debt crisis. A dearth of safe assets and the increased attractiveness of Asian government debt is pushing institutional and official investors away from mature markets and into government securities in markets such as the Republic of Korea, Malaysia, and Thailand.

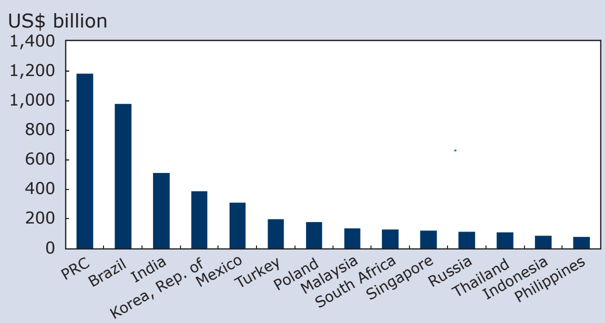
[4] Iwan J. Azis and S. Mitra. 2012. Why Do Intraregional Debt Investments Remain Low in Asia? *Office of Regional Economic Integration Policy Brief*. No. 1. June. Manila: Asian Development Bank.

Table B: Bonds Outstanding in Major Markets (US$ billion)

Economy	2011		1996	
	LCY Bonds Outstanding	% of World Total	LCY Bonds Outstanding	% of World Total
United States	26,333	38.8	10,926	42.9
Japan	12,715	18.7	4,456	17.5
France	3,308	4.9	1,261	4.9
Germany	2,534	3.7	1,888	7.4
United Kingdom	1,744	2.6	678	2.7
Emerging East Asia	5,671	8.4	528	2.1
of which: PRC	3,392	5.0	62	0.2
Emerging East Asia excl. PRC	2,279	3.4	466	1.8
of which: Korea, Rep. of	1,229	1.8	283	1.1
of which: ASEAN-6	883	1.3	149	0.6
Indonesia	110	0.2	7	0.0
Malaysia	263	0.4	71	0.3
Philippines	77	0.1	28	0.1
Singapore	189	0.3	25	0.1
Thailand	225	0.3	18	0.1
Viet Nam	17	0.02	–	–
Memo Items:				
Australia	1,023	1.5	248	1.0
Brazil	1,489	2.2	299	1.2
PRC (excl. policy bank bonds)	2,363	3.5	–	–
India	596	0.9	81	0.3
Russian Federation	87	0.1	43	0.2
South Africa	196	0.3	82	0.3

– = not available, ASEAN = Association of Southeast Asian Nations, LCY = local currency, PRC = People's Republic of China.
Source: *AsianBondsOnline* and Bank for International Settlements.

Figure G: Government Bonds Outstanding in Key Emerging Markets, March 2012



PRC = People's Republic of China.
Notes:
1. Data exclude central bank bonds. For the People's Republic of China, data include treasury and other government bonds. For India, data include treasury bills and government bonds.
2. Data for India, Russia, South Africa, and Turkey as of end-2011.
Source: Brazil (Banco Central do Brasil); People's Republic of China (*ChinaBond*); India (Bloomberg LP); Indonesia (Indonesia Stock Exchange); Republic of Korea (The Bank of Korea); Malaysia (Bank Negara Malaysia); Mexico (Banco de Mexico); Philippines (Bureau of the Treasury); Poland (Ministry of Finance); Russia (Ministry of Finance); Singapore (Monetary Authority of Singapore and Singapore Government Securities); South Africa (South Africa Reserve Bank); Thailand (Bank of Thailand); and Turkey (The Central Bank of the Republic of Turkey).

(ii) **A continuation of volatile capital flows.** Near-zero policy rates in mature markets and continuing hints from the US Federal Reserve over the possibility of more stimulus should conditions warrant have sparked fears in emerging markets of a surge in capital inflows. These inflows can cause large exchange rate fluctuations, affect trade, and ratchet credit growth—leading to asset price bubbles.

(iii) **Worsening investor sentiment amid weakening global growth.** Downside risks to global growth have increased as it remains uncertain whether policies and reforms can break Europe's seemingly vicious cycle of sovereign debt and bank stress. Bleak job prospects and mixed US economic data contribute to doubts over its economic recovery. The fear of a deeper growth slowdown in the PRC has added to dampened investor sentiment.

Bond Market Developments in the Second Quarter of 2012

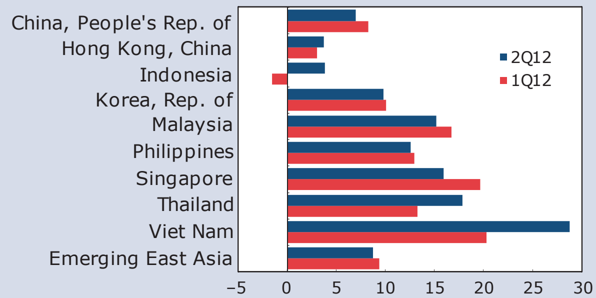
Size and Composition

Total bonds outstanding in emerging East Asia's LCY bond market grew 1.9% q-o-q and 8.6% y-o-y to reach US$5.9 trillion at the end of 2Q12, driven mainly by continued strong growth in corporate bonds.[5]

The quarter-on-quarter (q-o-q) growth rate for emerging East Asia's local currency (LCY) bond market was 1.9% in 2Q12 after posting 3.0% in 1Q12. On a q-o-q basis, the five most rapidly growing markets were Viet Nam, Thailand, Indonesia, Singapore, and the Philippines, which grew 10.5%, 4.1%, 3.6%, 3.2%, and 2.9%, respectively.

The year-on-year (y-o-y) growth rate for emerging East Asia's LCY bond market moderated to 8.6% in 2Q12 from 9.3% in 1Q12 **(Figure 1)**, as growth rates for both government bonds and corporate bonds leveled off. The y-o-y growth rate for government bonds moderated to 5.5% in 2Q12 from 5.8% in 1Q12, while the growth rate for corporate bonds was 15.2% in 2Q12 after posting 16.7% in 1Q12 **(Table 1)**.

Figure 1: Growth of LCY Bond Markets in 1Q12 and 2Q12 (y-o-y, %)



LCY = local currency, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Growth rates are calculated from LCY base and do not include currency effects.
3. Emerging East Asia growth figure is based on end-June 2012 currency exchange rates and does not include currency effects.
4. For Singapore, corporate bonds outstanding quarterly figures based on *AsianBondsOnline* estimates.
Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia and Indonesia Stock Exchange); Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore, Singapore Government Securities, and Bloomberg LP); Thailand (Bank of Thailand); and Viet Nam (Bloomberg LP).

The region's most rapidly growing bond markets on a y-o-y basis in 2Q12 were those of Viet Nam, Thailand, Singapore, Malaysia, and the Philippines, which grew 28.5%, 17.7%, 15.8%, 15.0%, and 12.4%, respectively. The growth of Viet Nam's bond market was driven entirely by the government bond sector; the size of the corporate bond sector in Viet Nam actually shrank slightly in 2Q12. In the other four markets listed above, the government and corporate bond sectors both grew at double-digit rates on a y-o-y basis, although the corporate bond sector outpaced the government sector by a significant amount in the Philippines and Singapore. Meanwhile, whether on a q-o-q or y-o-y basis, Viet Nam was the most rapidly growing and the Philippines was the least rapidly growing of the top five markets in 2Q12.

Emerging East Asia's government bond market grew moderately in 2Q12 on both a q-o-q (1.3%) and y-o-y (5.5%) basis.

The 1.3% q-o-q growth rate for the region's government bond market in 2Q12 represented a slight decline from the 2.4% q-o-q growth realized in 1Q12. The government bond markets reporting the most significant growth on a q-o-q basis were Viet Nam (12.6%); Thailand (4.8%); Indonesia (3.0%); Hong Kong, China (2.1%); and the Philippines (1.7%). The q-o-q growth rate for the Republic of Korea was almost negligible, while the government bond market of the People's Republic of China (PRC) only grew 1.1% q-o-q. The government bond markets of Malaysia and Singapore grew at almost identical q-o-q rates of 1.6% and 1.5%, respectively.

[5] Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

Table 1: Size and Composition of LCY Bond Markets

	2Q11		1Q12		2Q12		Growth Rate (LCY-base %)				Growth Rate (US$-base %)			
	Amount (US$ billion)	% share	Amount (US$ billion)	% share	Amount (US$ billion)	% share	2Q11		2Q12		2Q11		2Q12	
							q-o-q	y-o-y	q-o-q	y-o-y	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of (PRC)														
Total	3,190	100.0	3,448	100.0	3,469	100.0	2.7	6.7	1.5	6.9	4.0	12.0	0.6	8.7
Government	2,440	76.5	2,575	74.7	2,580	74.4	1.6	1.0	1.1	3.9	3.0	6.0	0.2	5.7
Corporate	750	23.5	874	25.3	889	25.6	6.3	30.8	2.6	16.5	7.7	37.2	1.7	18.5
Hong Kong, China														
Total	167	100.0	171	100.0	174	100.0	0.5	5.4	1.2	3.7	0.5	5.5	1.3	4.0
Government	88	52.7	91	53.0	93	53.5	0.5	2.6	2.1	5.3	0.4	2.6	2.2	5.6
Corporate	79	47.3	81	47.0	81	46.5	0.5	8.7	0.1	1.9	0.5	8.8	0.2	2.2
Indonesia														
Total	118	100.0	111	100.0	111	100.0	(1.7)	2.7	3.6	3.8	(0.2)	8.6	0.5	(5.6)
Government	103	87.0	94	84.7	94	84.2	(3.1)	(1.4)	3.0	0.5	(1.7)	4.3	(0.2)	(8.6)
Corporate	15	13.0	17	15.3	18	15.8	8.9	41.9	7.4	25.9	10.6	50.1	4.1	14.5
Korea, Rep. of														
Total	1,274	100.0	1,290	100.0	1,302	100.0	2.3	8.2	2.1	9.7	5.1	23.8	1.0	2.2
Government	547	42.9	531	41.2	525	40.3	1.5	4.4	(0.05)	3.0	4.2	19.5	(1.1)	(4.0)
Corporate	727	57.1	759	58.8	777	59.7	3.0	11.3	3.6	14.7	5.8	27.4	2.4	6.9
Malaysia														
Total	269	100.0	298	100.0	294	100.0	3.7	16.7	2.3	15.0	3.9	25.1	(1.3)	9.3
Government	161	59.7	179	60.2	176	59.8	2.9	20.9	1.6	15.3	3.1	29.5	(2.0)	9.6
Corporate	108	40.3	119	39.8	118	40.2	4.9	11.1	3.2	14.6	5.1	19.1	(0.4)	9.0
Philippines														
Total	75	100.0	83	100.0	87	100.0	3.3	6.2	2.9	12.4	3.2	13.4	4.8	15.7
Government	66	87.2	73	87.5	75	86.5	3.2	5.5	1.7	11.5	3.2	12.7	3.6	14.8
Corporate	10	12.8	10	12.5	12	13.5	3.6	10.9	11.5	18.7	3.6	18.5	13.5	22.2
Singapore														
Total	193	100.0	211	100.0	217	100.0	6.5	11.6	3.2	15.8	9.3	27.1	2.6	12.4
Government	117	60.8	129	60.9	130	59.9	8.0	12.3	1.5	14.1	10.8	28.0	0.9	10.8
Corporate	76	39.2	83	39.1	87	40.1	4.3	10.4	5.8	18.3	7.1	25.7	5.2	14.9
Thailand														
Total	222	100.0	250	100.0	254	100.0	0.1	6.2	4.1	17.7	(1.4)	12.2	1.7	14.6
Government	178	80.2	200	79.8	204	80.3	(0.2)	5.6	4.8	17.9	(1.7)	11.5	2.3	14.8
Corporate	44	19.8	51	20.2	50	19.7	1.2	9.0	1.6	16.9	(0.3)	15.1	(0.8)	13.9
Viet Nam														
Total	17	100.0	20	100.0	22	100.0	3.3	16.7	10.5	28.5	4.9	8.2	10.2	26.6
Government	15	88.2	18	89.9	20	91.6	4.3	15.8	12.6	33.5	5.8	7.2	12.3	31.5
Corporate	2	11.8	2	10.1	2	8.4	(3.3)	24.6	(7.9)	(8.7)	(1.9)	15.4	(8.2)	(10.1)
Emerging East Asia (EEA)														
Total	5,525	100.0	5,882	100.0	5,930	100.0	2.5	7.5	1.9	8.6	4.0	15.3	0.8	7.3
Government	3,714	67.2	3,888	66.1	3,897	65.7	1.6	2.8	1.3	5.5	3.0	9.5	0.2	4.9
Corporate	1,811	32.8	1,994	33.9	2,033	34.3	4.4	18.9	3.1	15.2	6.2	29.4	2.0	12.2
EEA Less PRC														
Total	2,335	100.0	2,434	100.0	2,461	100.0	2.3	8.7	2.5	11.1	4.0	20.2	1.1	5.4
Government	1,273	54.5	1,314	54.0	1,317	53.5	1.7	6.7	1.7	8.5	3.0	16.9	0.2	3.4
Corporate	1,061	45.5	1,120	46.0	1,144	46.5	3.1	11.2	3.5	14.2	5.2	24.4	2.1	7.8
Japan														
Total	11,986	100.0	11,897	100.0	12,465	100.0	1.0	4.2	0.9	3.0	4.2	14.4	4.8	4.0
Government	10,883	90.8	10,826	91.0	11,373	91.2	1.2	4.7	1.2	3.5	4.5	15.0	5.1	4.5
Corporate	1,103	9.2	1,072	9.0	1,092	8.8	(1.6)	(1.0)	(1.9)	(1.9)	1.6	8.7	1.9	(1.0)
Memo Item: CNH														
Total	28	100.0	52	100.0	49	100.0	109.4	512.7	(4.8)	69.8	112.2	542.9	(5.6)	72.7
Government	7	24.6	11	20.5	13	25.7	30.9	247.6	19.3	77.7	32.6	264.7	18.3	80.7
Corporate	21	75.4	41	79.5	36	74.3	160.4	715.5	(11.0)	67.2	163.8	755.6	(11.8)	70.1

LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.

Notes:

1. For Singapore, corporate bonds outstanding quarterly figures based on *AsianBondsOnline* estimates.
2. Corporate bonds include issues by financial institutions.
3. CNH bonds are renminbi-denominated bonds issued in Hong Kong, China. Data include certificates of deposit and bonds issued by foreign companies.
4. Bloomberg LP end-of-period LCY–US$ rates are used.
5. For LCY base, emerging East Asia growth figures are based on end-June 2012 currency exchange rates and do not include currency effects.
6. Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia and Indonesia Stock Exchange); Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore, Singapore Government Securities, and Bloomberg LP); Thailand (Bank of Thailand); Viet Nam (Bloomberg LP); and Japan (Japan Securities Dealers Association).

Viet Nam's government bond market grew at robust q-o-q rates of 12.6% in 2Q12 and 14.8% in 1Q12, following a sharp reduction in government bond market issuance and growth in the last quarter of 2011 when the government reduced investment expenditure, raised interest rates, and took other measures to cope with an accelerating rate of inflation. In 4Q11, the q-o-q growth of the government bond market was only 0.03%. Viet Nam's annual consumer price inflation rate had risen to levels above 20% in the middle of 2011, but has since fallen back to single-digit levels in the first half of 2012, most recently falling to 5.04% y-o-y in August. As a result, the government has begun to resume a more normal pattern of bond issuance.

The rapid growth of Thailand's government bond market reflects ongoing public works projects designed to restore and improve drainage and water control facilities in the aftermath of last year's disastrous floods. The increase for Singapore's government bonds primarily reflects the aggressive issuance of Monetary Authority of Singapore (MAS) bills since their introduction in April 2011. Outstanding MAS bills stood at SGD20.4 billion (US$16.1 billion) at end-June, almost four times the SGD5.4 billion outstanding at end-June 2011. MAS bills grew 13.3% q-o-q in 2Q12. The outstanding amount of Singapore Government Securities (SGS) bills and bonds rose 3.8% y-o-y to SGD143.8 billion at the end of 2Q12, but their growth was flat on a q-o-q basis.

At the end of 2Q12, the PRC government bond market was still the largest in the region at an equivalent size of US$2.6 trillion, but this represented only a 1.1% q-o-q increase from 1Q12. The PRC government bond market comprises three major components: (i) treasury bonds, (ii) central bank bonds, and (iii) policy bank bonds. These three components had values of US$1.2 trillion, US$259 billion, and US$1.1 trillion, respectively, at end-June. The most dramatic change in the PRC's government bond sector has been the continued shrinkage of central bank bonds outstanding, which declined 14.7% q-o-q and 41.0% y-o-y in 2Q12. In contrast, treasury bonds grew 1.1% q-o-q and 8.0% y-o-y in 2Q12, and policy bank bonds grew 5.6% q-o-q and 20.0% y-o-y.

The LCY corporate bond market in emerging East Asia grew 3.1% q-o-q and 15.2% y-o-y in 2Q12, reflecting the continued expansion of corporate bond issuance in most individual bond markets.

The LCY corporate bond market in emerging East Asia expanded 3.1% q-o-q in 2Q12, led by the Philippines (11.5%), Indonesia (7.4%), Singapore (5.8%), the Republic of Korea (3.6%), and Malaysia (3.2%). Meanwhile, corporate bonds in Thailand only grew 1.6% q-o-q in 2Q12 due to a sharp downturn in issuance. On a y-o-y basis, the region's LCY corporate bond market expanded 15.2% in 2Q12, led by Indonesia (25.9%), the Philippines (18.7%), Singapore (18.3%), Thailand (16.9%), and the PRC (16.5%). This reflects a very positive development—the emergence of a much broader issuer base as companies in the energy, transportation, and real estate sectors have begun to issue bonds in large amounts.

In Indonesia, about 83% of total corporate bonds outstanding at the end of 2Q12 were conventional bonds; subordinated bonds accounted for 13.6% of total outstanding corporate bonds. *Sukuk* (Islamic bonds) issued by corporate entities represented a small percentage of total corporate bonds, with a share of only 3.4% at end-June. Motorcycle financing company Federal International Finance raised a total of IDR4 trillion (US$424 million) of bonds through a triple-tranche bond sale in April. Bank Tabungan Negara issued a total of IDR2 trillion of 10-year conventional bonds in June. Indonesian noodle manufacturer Indofood Sukses Makmur issued a IDR2 trillion 5-year bond in May. Automotive financing firm Adira Dinamika Multifinance issued a total of IDR1.85 trillion of bonds through a triple-tranche sale in May. Another automotive financing company, BCA Finance, raised a total of IDR1.7 trillion worth of bonds in May.

In the Philippines, new issuance of LCY corporate bonds in 2Q12 came from a wide variety of entities including banks, real estate companies, telecommunication companies, tollway operators, and a brewery. San Miguel Brewery sold a total of PHP20 billion (US$468 million) of notes with maturities of 5, 7, and 10 years. Ayala Land sold a total of PHP15 billion in retail bonds carrying 7- and 10-year maturities. Ayala Corporation and its telecom subsidiary, Globe Telecom Inc., floated PHP10 billion of notes each. Other issuers in 2Q12 included (i) Filinvest Land, (ii) Philippine National Bank (PNB), and (iii) Rizal Commercial Banking Corporation (RCBC).

The growth of the Singapore corporate bond market in 2012 has been supported by the issuance of perpetual bonds, which accounted for around one-third of total new issuance in the first half of 2012. The first quarter saw four new issues of perpetual bonds: (i) Genting Singapore (SGD1.8 billion), (ii) Mapletree Logistics (SGD350 million), (iii) Singapore Post (SGD350 million), and (iv) Olam International (SGD275 million). In 2Q12, Genting Singapore issued another SGD500 million worth of perpetual bonds, and Ascendas and Hotel Properties sold SGD300 million and SGD150 million of perpetual bonds, respectively **(Table 2)**.

Table 2: Perpetual Bonds Outstanding in Emerging East Asia

Issuer Name	Face Value of Bond	Issue Date	Coupon Rate (%)	Step-Up Interest Rate (%)
Hong Kong, China	(HKD billion)			
Cheung Kong Holdings	1.0	07-09-2012	5.250	6.25
Malaysia	(MYR billion)			
Malaysia Airlines	1.0	06-12-2012	6.900	
Hybrid Bonds:				
Malayan Banking	3.5	06-27-2008		6.85
CIMB Bank	1.0	12-26-2008	7.200	
Singapore	(SGD billion)			
Hyflux	0.4	04-25-2011	6.000	8.00
Global Logistics	0.8	12-07-2011	5.500	
Olam International	0.3	03-01-2012	7.000	
Singapore Post	0.4	03-02-2012	4.250	
Genting Singapore	1.8	03-12-2012	5.125	6.125
Mapletree Logistics	0.4	03-19-2012	5.375	
Genting Singapore	0.5	04-18-2012	5.125	6.125
Ascendas	0.3	04-18-2012	4.750	
Hotel Properties	0.2	05-04-2012	6.125	
Hybrid Bonds:				
DBS Capital Funding	1.5	05-27-2008	5.780	
OCBC Capital	1.5	08-26-2008	5.100	
Oversea-Chinese Banking Corp.	1.0	07-28-2008	5.100	
United Overseas Bank	1.3	09-15-2008	5.050	
DBS Bank	1.7	10-22-2010	4.700	
DBS Bank	0.8	11-22-2010	4.700	
Thailand	(THB billion)			
PTT Exploration and Production	5.0	06-15-2012	5.850	5.85% (06-15-2022), 6.10% (06-15-2042), 6.85% (06-15-2072), and 7.85% (06-15-2073)
Hybrid Bonds:				
TMB Bank	4.0	04-30-2009	7.000	
Memo Items: (US$-denominated)				
Hong Kong, China	(US$ billion)			
Cheung Kong Infrastructure Holdings	0.30	02-27-2012	7.000	
Hutchison Whampoa International	1.00	05-07-2012	6.000	5Y UST + 517.6 bps every 5 years
Philippines	(US$ billion)			
Royal Capital BV	0.35	05-05-2011		5Y UST + 637.8 bps + 250 bps for every 5Y non-call

bps = basis points, UST = US Treasury, Y = year.
Source: Bloomberg LP.

Perpetual bonds are being issued in Malaysia; Thailand; and Hong Kong, China as well. Malaysia Airlines issued MYR1 billion (US$315 million) of perpetual bonds in June, for example. Perpetual bonds also have been issued in foreign currencies in Hong Kong, China and the Philippines. The perpetual bonds are often callable, with multiple call dates, and step-up interest rates in the event they are not called.

Malaysian corporate issuance in the first half of 2012, however, was mainly in the form of *sukuk*. Among the notable issues was the world's largest *sukuk* issuance to date: toll expressway operator Projek Lebuhraya Utara Selatan Bhd.'s (PLUS) MYR30.6 billion worth of Islamic medium-term notes (IMTNs). In addition, Sarawak Energy raised a total of MYR2.5 billion from the sale of 10- and 15-year *sukuk* in recent months, telecommunications company Maxis Bhd. sold MYR2.5 billion worth of 10-year *sukuk* in February, and electricity producer Tanjung Bin Energy Bhd. raised MYR3.3 billion from a multi-tranche sale of *sukuk* in March. Finally, Encorp Systembilt raised MYR1.6 billion from the sale of multi-tranche *sukuk* in May.

In Thailand, the three largest LCY corporate bond issues in the first half of the year were (i) Siam Cement's 4-year senior unsecured bond issued in April worth THB25 billion (US$793.2 million) and offering a coupon rate of 4.15%, (ii) Kasikorn Bank's 10-year subordinated bond of THB22 billion with a 4.5% coupon issued in February, and (iii) Siam Commercial Bank's 10-year subordinated bond of THB20 billion with a 4.5% coupon issued in February. PTT Exploration and Production issued a perpetual bond in May worth THB5 billion with an initial coupon of 5.85%. The bond has a series of call dates after which the coupon can rise to much higher levels if the bond is not called.

In the Republic of Korea, total LCY corporate bonds outstanding at end-June stood at the equivalent of US$777 billion, making it the second largest corporate bond market in the region after the PRC. Private corporate bonds, which accounted for 43.8% of the total, expanded 5.1% q-o-q in 2Q12 to reach US$340 billion. Meanwhile, special public bonds climbed 4.3% q-o-q in 2Q12 to reach US$258 billion, or about one-third of total LCY corporate bonds outstanding. On the other hand, the outstanding stock of financial debentures (excluding Korea Development Bank bonds) shrank 0.3% q-o-q to level off at US$179 billion.

The much-reduced growth rate of the PRC corporate bond market in 2Q12 reflected sharp changes in the market's structure over the last year. Commercial paper outstanding fell a dramatic 58.0% q-o-q in 2Q12, while asset-backed securities continued to decline as well, falling 4.3% due to a continued lack of issuance. Bonds issued by state-owned enterprises (SOEs) grew a modest 4.1% q-o-q, while medium-term notes grew 4.9% q-o-q. Commercial bank bonds grew 7.0% q-o-q in 2Q12, due largely to issuance of subordinated notes as banks sought to bolster their capital bases in advance of the PRC's implementation of Basel III. Finally, local corporate bonds grew 12.6% q-o-q.

The CNH Bond Market in Hong Kong, China[6]

Issuance in the Hong Kong, China-based CNH bond market saw an uptick in July and early August after a sluggish first half of the year. Several examples of newer CNH issues included (i) a CNH1.5 billion 3-year bond with a coupon of 4.80% from AVIC International, (ii) a CNH1.2 billion 3-year bond with a coupon of 9.15% from Gemdale International, and (iii) a CNH1.8 billion 2-year bond with a coupon of 4.5% from Sinotruk. The German financial institution KfW also tapped its existing CNH bond, raising an additional CNH500 million.

In late 2011, concerns that the PRC's economy was weakening and the renminbi was no longer appreciating dampened investor interest in the renminbi and in CNH bonds, resulting in a weakening of CNH bond issuance in 1Q12.

Out of total issuance of CNH64.3 billion in 1Q12, only CNH16.9 billion was issued as bonds, with

[6] CNH bonds are renminbi-denominated bonds issued in Hong Kong, China.

certificates of deposit issued by banks comprising the remainder. However, CNH bond issuance picked up in 2Q12, rising to CNH37.3 billion to bring total issuance of CNH bonds in the first half of the year to CNH54.2 billion. (Certificates of deposits still accounted for the bulk of issuance of CNH securities in the first half of 2012 at CNH141.5 billion).

Total CNH bonds outstanding, however, slid 4.8% on a q-o-q basis in 2Q12, but rose by a substantial 69.8% on a y-o-y basis. The CNH bond market is dominated by the corporate sector, which accounted for 74.3% of total CNH bonds outstanding at end-June. Corporate sector bonds outstanding fell 11.0% q-o-q in 2Q12, reflecting the concerns mentioned above over the direction of the renminbi. Newer CNH bonds have been issued in recent months with coupons set at levels higher than were typical in the market last year. As a result, newer CNH bonds are being viewed as more attractive investments given the decline in yields for HKD-denominated bonds in recent months.

Ratio of Bonds Outstanding to Gross Domestic Product

The ratio of LCY bonds outstanding to gross domestic product in emerging East Asia remained unchanged in 2Q12 from the previous quarter at 53.0%.

The ratio of LCY bonds outstanding to gross domestic product (GDP) in emerging East Asia remained unchanged in 2Q12 from the previous quarter at 53.0% **(Table 3)**. The ratio of government bonds to GDP in 2Q12 fell to 34.8% from 35.0%, while the ratio of corporate bonds to GDP rose to 18.2% from 18.0%. The largest increases in the ratio of government bonds to GDP between 1Q12 and 2Q12 were in Thailand (from 58.1% to 60.0%) and Viet Nam (from 14.1% to 15.4%). The largest increase in the ratio of corporate bonds to GDP was in the Republic of Korea, where corporate bonds as a share of GDP rose from 68.8% to 70.7%. Indonesia, the Philippines, and Viet Nam

Table 3: Size and Composition of LCY Bond Markets
(% of GDP)

	2Q11	1Q12	2Q12
China, People's Rep. of			
Total	47.7	45.0	44.7
Government	36.5	33.6	33.3
Corporate	11.2	11.4	11.5
Hong Kong, China			
Total	71.3	69.5	70.3
Government	37.6	36.8	37.6
Corporate	33.8	32.7	32.7
Indonesia			
Total	14.6	13.2	13.3
Government	12.7	11.2	11.2
Corporate	1.9	2.0	2.1
Korea, Rep. of			
Total	112.7	117.0	118.4
Government	48.4	48.1	47.7
Corporate	64.4	68.8	70.7
Malaysia			
Total	96.7	102. 0	102.6
Government	57.8	61.4	61.4
Corporate	39.0	40.6	41.2
Philippines			
Total	34.7	35.9	36.3
Government	30.3	31.5	31.4
Corporate	4.4	4.5	4.9
Singapore			
Total	74.0	80.7	82.5
Government	44.9	49.2	49.4
Corporate	29.0	31.6	33.1
Thailand			
Total	65.1	72.8	74.7
Government	52.2	58.1	60.0
Corporate	12.9	14.7	14.7
Viet Nam			
Total	16.2	15.6	16.8
Government	14.2	14.1	15.4
Corporate	1.9	1.6	1.4
Emerging East Asia			
Total	54.9	53.0	53.0
Government	36.9	35.0	34.8
Corporate	18.0	18.0	18.2
Japan			
Total	209.7	199.8	207.1
Government	190.4	181.8	189.0
Corporate	19.3	18.0	18.1

GDP = gross domestic product, LCY = local currency.
Notes:
1. Data for GDP is from CEIC.
2. For Singapore, corporate bonds outstanding quarterly figures based on *AsianBondsOnline* estimates.
Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia and Indonesia Stock Exchange); Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore, Singapore Government Securities, and Bloomberg LP); Thailand (Bank of Thailand); Viet Nam (Bloomberg LP); and Japan (Japan Securities Dealers Association).

had the lowest corporate bonds-to-GDP ratios in 2Q12, ranging from 1.4% for Viet Nam to 4.9% for the Philippines.

Issuance

Issuance in emerging East Asia in 2Q12 totaled US$875 billion, a significant increase of 12.0% on a q-o-q basis and a modest decline of 7.0% on a y-o-y basis.

The substantial q-o-q increase of total issuance in 2Q12 was driven primarily by a revival of issuance by treasuries and other government entities as they resurrected economic stimulus measures. Central bank issuance also rose in 2Q12, but to a lesser degree than issuance by treasuries and other government entities, while quarterly corporate issuance fell by a modest amount **(Figures 2a, 2b, 2c)**.

The increased pace of issuance of treasuries and some other types of central government bonds in 2Q12 was significant on both a q-o-q (39.7%) and y-o-y basis (20.8%) **(Table 4)**. The largest contribution to this upturn, in terms of both growth rates and issuance volume, came from the PRC. Treasury bond issuance in the PRC in 2Q12 accounted for US$200 billion out of a region-wide total of US$300 billion, growing by 70.3% q-o-q and 27.0% y-o-y. The next largest issuers of treasury and other government bonds were Singapore (US$50 billion), the Republic of Korea (US$21 billion), Malaysia (US$9 billion), and Thailand (US$8 billion). Although the total amount was relatively modest, growth rates for Thailand's treasury bond issuance in 2Q12 were substantial at 25.5% q-o-q and 110.9% y-o-y.

Issuance of Hong Kong Special Administrative Region (HKSAR) bonds by the government of Hong Kong, China rose dramatically by 200% q-o-q and 500% y-o-y in 2Q12, amounting to HKD15 billion (US$2 billion). In May, HKD3.0 billion of 3-year HKSAR bonds were issued under the government's Institutional Bond Issuance Programme. An additional HKD1.5 billion in 5-year bonds were sold in June. Finally, HKD10 billion

Figure 2a: Government (including SOE) and Central Bank Bond Issuance, 1Q09–2Q12

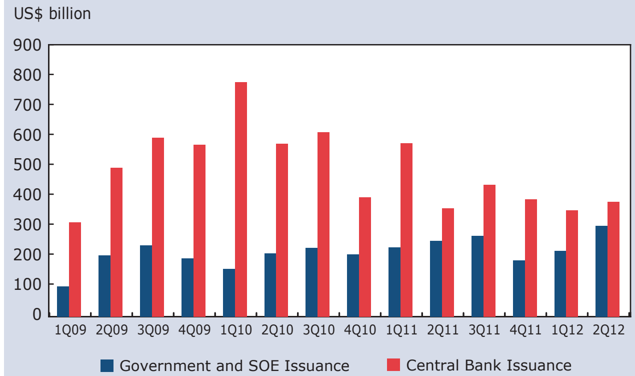


Figure 2b: Government (including SOE) and Corporate Bond Issuance, 1Q09–2Q12

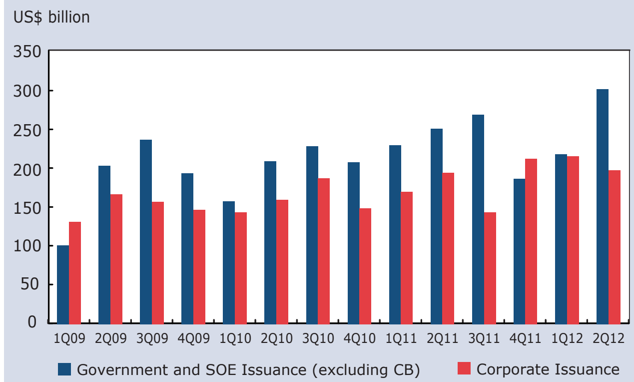
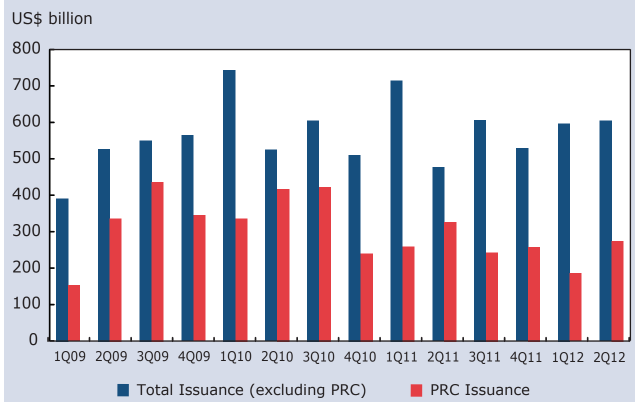


Figure 2c: Total LCY Bond Issuance, 1Q09–2Q12



CB = central bank, LCY = local currency, PRC = People's Republic of China, SOE = state-owned enterprise.
Note: In the PRC, government issuance (including SOE issuance) includes policy bank bonds, local government bonds, and savings bonds.
Source: *AsianBondsOnline*.

Table 4: LCY-Denominated Bond Issuance (gross)

	LCY (billion)		**US$** (billion)		**Growth Rate** (LCY-base %)		**Growth Rate** (US$-base %)	
	2Q12	**% share**	**2Q12**	**% share**	**2Q12**		**2Q12**	
					q-o-q	**y-o-y**	**q-o-q**	**y-o-y**
China, People's Rep. of (PRC)								
Total	1,742	100.0	274	100.0	48.6	(17.3)	47.3	(15.9)
Government	1,269	72.9	200	72.9	70.3	(19.8)	68.8	(18.5)
Central Bank	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	1,269	72.9	200	72.9	70.3	27.0	68.8	29.2
Corporate	473	27.1	74	27.1	10.7	(9.7)	9.7	(8.1)
Hong Kong, China								
Total	1,771	100.0	228	100.0	20.2	(5.1)	20.3	(4.8)
Government	1,700	96.0	219	96.0	23.0	(5.8)	23.1	(5.5)
Central Bank	1,685	95.2	217	95.2	22.3	(6.5)	22.5	(6.2)
Treasury and Other Govt.	15	0.8	2	0.8	200.0	500.0	200.3	501.9
Corporate	71	4.0	9	4.0	(22.1)	15.7	(22.0)	16.1
Indonesia								
Total	80,126	100.0	8	100.0	(18.0)	(24.6)	(20.5)	(31.4)
Government	55,102	68.8	6	68.8	(36.6)	(39.7)	(38.6)	(45.1)
Central Bank	14,612	18.2	2	18.2	(45.1)	(71.8)	(46.7)	(74.3)
Treasury and Other Govt.	40,490	50.5	4	50.5	(32.9)	2.4	(35.0)	(6.9)
Corporate	25,024	31.2	3	31.2	131.7	67.2	124.7	52.1
Korea, Rep. of								
Total	164,979	100.0	144	100.0	(8.2)	(4.2)	(9.2)	(10.7)
Government	66,757	40.5	58	40.5	(1.5)	(24.3)	(2.6)	(29.4)
Central Bank	42,490	25.8	37	25.8	0.5	(30.1)	(0.6)	(34.8)
Treasury and Other Govt.	24,267	14.7	21	14.7	(4.9)	(11.3)	(5.9)	(17.3)
Corporate	98,222	59.5	86	59.5	(12.2)	16.8	(13.2)	8.9
Malaysia								
Total	130	100.0	41	100.0	(29.2)	(3.0)	(31.7)	(7.8)
Government	101	77.7	32	77.7	(24.2)	(5.8)	(26.9)	(10.4)
Central Bank	73	55.8	23	55.8	(32.1)	(8.5)	(34.5)	(13.1)
Treasury and Other Govt.	29	21.9	9	21.9	7.9	2.2	4.0	(2.9)
Corporate	29	22.3	9	22.3	(42.3)	7.9	(44.4)	2.5
Philippines								
Total	207	100.0	5	100.0	(16.4)	109.1	(14.9)	115.3
Government	133	64.2	3	64.2	(41.7)	98.3	(40.6)	104.1
Central Bank	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	133	64.2	3	64.2	(41.7)	98.3	(40.6)	104.1
Corporate	74	35.8	2	35.8	279.3	131.9	286.2	138.8
Singapore								
Total	110	100.0	87	100.0	10.6	46.4	9.9	42.1
Government	104	94.9	82	94.9	11.1	45.9	10.5	41.6
Central Bank	40	36.8	32	36.8	11.0	242.4	10.3	232.5
Treasury and Other Govt.	64	58.0	50	58.0	11.2	6.9	10.5	3.8
Corporate	6	5.1	4	5.1	1.8	56.5	1.2	52.0
Thailand								
Total	2,633	100.0	83	100.0	(10.8)	(18.7)	(12.9)	(20.9)
Government	2,351	89.3	74	89.3	(7.2)	(18.8)	(9.4)	(21.0)
Central Bank	2,091	79.4	66	79.4	(10.1)	(24.6)	(12.2)	(26.6)
Treasury and Other Govt.	260	9.9	8	9.9	25.5	110.9	22.6	105.4
Corporate	282	10.7	9	10.7	(32.6)	(17.8)	(34.1)	(20.0)

continued on next page

Table 4 *continued*

	LCY (billion)		US$ (billion)		Growth Rate (LCY-base %)		Growth Rate (US$-base %)	
	2Q12	% share	2Q12	% share	2Q12 q-o-q	2Q12 y-o-y	2Q12 q-o-q	2Q12 y-o-y
Viet Nam								
Total	90,981	100.0	4	100.0	11.5	289.4	11.2	283.4
Government	90,981	100.0	4	100.0	11.5	290.2	11.2	284.3
Central Bank	49,361	54.3	2	54.3	62.0	–	61.5	–
Treasury and Other Govt.	41,620	45.7	2	45.7	(18.6)	78.5	(18.8)	75.8
Corporate	0	0.0	0	0.0	–	–	–	–
Emerging East Asia (EEA)								
Total	–	–	875	100.0	12.0	(7.0)	10.9	(8.2)
Government	–	–	679	77.6	19.2	(9.8)	18.1	(10.7)
Central Bank	–	–	379	43.3	6.9	(24.9)	5.8	(25.8)
Treasury and Other Govt.	–	–	300	34.2	39.7	20.8	38.4	20.2
Corporate	–	–	196	22.4	(7.3)	4.3	(8.4)	1.6
EEA Less PRC								
Total	–	–	601	100.0	0.7	(1.4)	(0.3)	(4.2)
Government	–	–	479	79.7	6.0	(4.9)	5.0	(7.0)
Central Bank	–	–	379	63.1	6.9	(8.2)	5.8	(9.8)
Treasury and Other Govt.	–	–	100	16.6	2.9	10.2	1.7	5.4
Corporate	–	–	122	20.3	(15.7)	15.1	(16.9)	8.7
Japan								
Total	50,651	100.0	635	100.0	2.7	3.6	6.7	4.6
Government	47,490	93.8	595	93.8	3.7	4.0	7.7	5.0
Central Bank	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	47,490	93.8	595	93.8	3.7	4.0	7.7	5.0
Corporate	3,162	6.2	40	6.2	(10.4)	(2.0)	(7.0)	(1.0)

– = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Corporate bonds include issues by financial institutions.
2. Bloomberg LP end-of-period LCY–US$ rates are used.
3. For LCY base, emerging East Asia growth figures based on end-June 2012 currency exchange rates and do not include currency effects.
Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia, Indonesia Debt Management Office, and Indonesia Stock Exchange); Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bloomberg LP); Singapore (Singapore Government Securities and Bloomberg LP); Thailand (Bank of Thailand); Viet Nam (Bloomberg LP); and Japan (Japan Securities Dealers Association).

in 3-year bonds were sold in June as part of the government's Retail Bond Issuance Programme.

Central bank issuance across emerging East Asia grew a modest 6.9% q-o-q and shrank 24.9% y-o-y in 2Q12. The most dramatic feature of central bank issuance in 2Q12 was the simple fact that the People's Bank of China (PBOC) ceased issuance of new bills and notes.

The largest issuance of central bank or monetary authority paper in 2Q12 came from the Hong Kong Monetary Authority (HKMA), whose issuance of Exchange Fund Bills and Notes (EFBNs) amounted to US$217 billion out of a region-wide total of US$379 billion. HKMA's issuance in 2Q12 represented a 22.3% increase q-o-q, but a 6.5% decline y-o-y.

The next largest issuances from central banks and monetary authorities in 2Q12 were (i) US$66 billion of bills and bonds from the Bank of Thailand (BOT), (ii) US$37 billion of bills and bonds from The Bank of Korea, and (iii) US$32 billion of bills from MAS. BOT's total issuance in 2Q12 represented a 10.1% decline on a q-o-q basis and a 24.6% decline on a y-o-y basis. The Bank of Korea's issuance level in 2Q12 was essentially flat on a q-o-q basis, but fell sharply by 30.1% on a y-o-y basis. MAS only started issuing bills in 2011, resulting in growth of MAS issuance in 2Q12 of 11.0% q-o-q and 242.4% y-o-y. Bank Indonesia's issuance of *Sertifikat* Bank Indonesia (SBI) was only US$2 billion in 2Q12, representing sharp declines of 45.1% q-o-q and 71.8% y-o-y.

Corporate bond issuance was relatively subdued in 2Q12, reflecting a distinct moderation in issuance in emerging East Asia's two largest corporate bond markets, the PRC and the Republic of Korea. The PRC's corporate bond issuance rose 10.7% q-o-q, but fell 9.7% y-o-y. As discussed earlier, this reflects a dramatic decline of commercial paper issuance in the PRC in 2Q12, while issuance of bonds by state-owned enterprises (SOEs) moderated. Corporate bond issuance in the Republic of Korea fell 12.2% q-o-q, largely due to a sharp reduction in issuance by banks, but still rose 16.8% y-o-y.

The growth leaders in corporate bond issuance in 2Q12 were the smaller markets of Indonesia and the Philippines. Corporate bond issuance rose 131.7% q-o-q and 67.2% y-o-y in Indonesia, and 279.3% q-o-q and 131.9% y-o-y in the Philippines. Philippine issuance comprised a mixture of issues from real estate infrastructure companies and banks. Indonesian corporate issuance came primarily from banks and finance companies. Meanwhile, corporate issuance out of Thailand fell sharply in 2Q12, declining 32.6% q-o-q and 17.8% y-o-y.

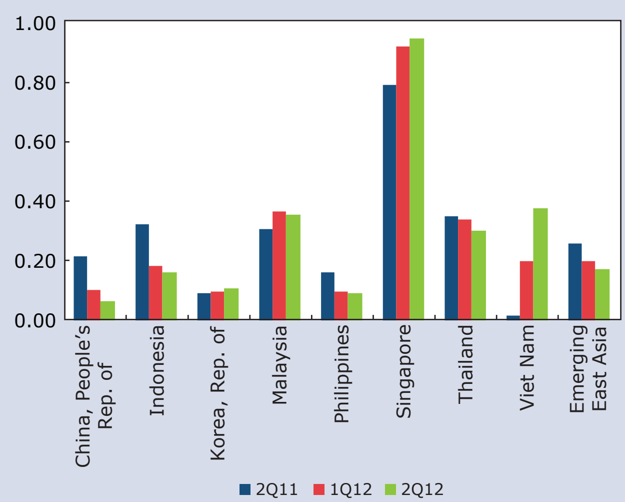
Money Market Trends and Bills-to-Bonds Ratios

Bills-to-bonds ratios fell in most emerging East Asian markets in 2Q12.

Total bills-to-bonds ratios fell in 2Q12 in five out of the eight emerging East Asian markets presented in **Figure 3a**, which excludes Hong Kong, China due to its unusually high ratio of bills to bonds. However, Hong Kong, China's total ratio of bills to bonds also fell—from 4.94 in 1Q12 to 4.41 in 2Q12—mainly due to the large issuance of HKSAR Bonds in 2Q12. Meanwhile, Hong Kong, China's ratio of Exchange Fund Bills to Exchange Fund Notes rose slightly to 8.51 in 2Q12 from 8.46 in 1Q12.

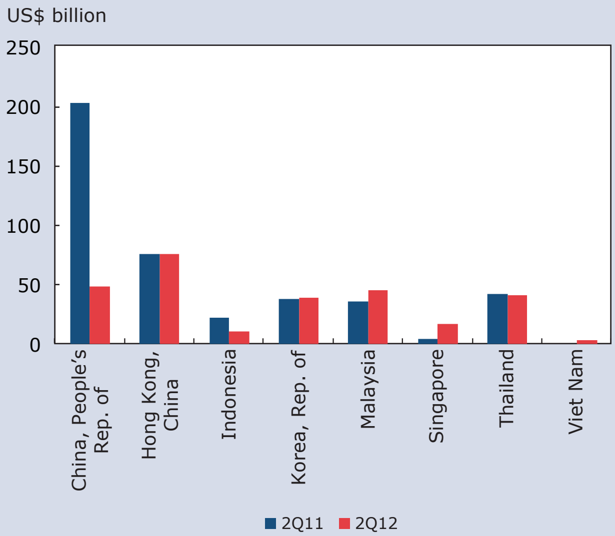
The principal reason for the fall in the ratio of total bills to bonds in most markets was a slower pace of bill issuance compared with bond issuance. Governments in the region significantly increased their issuance of treasuries and other types of longer-term government bonds in 2Q12 to finance revived economic stimulus programs that had been scaled back in the latter half of 2011. Furthermore, a number of central banks in the region reduced or stabilized their bill issuance as they cut back or sharply reduced the sterilization programs they had pursued in 2011 **(Figure 3b)**. As mentioned previously, the PBOC has issued no new bills or bonds thus far in 2012. The PRC's ratio of central bank bills to central bank bonds fell sharply in 2Q12 to 0.23 from 0.44 in 1Q12 and 0.89 in 2Q11. Thus, the ratio of central bank bills to central bank bonds for the region as a whole fell to 0.74 at the end of 2Q12 from 0.85 at the end of 1Q12, given that the PBOC had previously accounted for a very large portion of total central bank bills in the region **(Table 5)**. Thailand reduced its issuance of central bank bills in 2Q12 as well, resulting in a fall of its ratio of central bank bills to central bank bonds from 0.93 in 1Q12 to 0.76 in 2Q12. Malaysia and Indonesia also reduced their issuance of central banks bills slightly in 2Q12, but since neither issues central bank bonds, there is no ratio to report for either of these two markets.

Figure 3a: Total Bills-to-Bonds Ratios



Note: Total bills comprise central bank bills plus treasury bills. Bonds comprise long-term bonds (more than 1 year in maturity) issued by central governments and central banks.
Source: *AsianBondsOnline*.

Figure 3b: Central Bank Bills Outstanding



Source: *AsianBondsOnline*.

The PRC, however, sharply increased its stock of treasury bills and bonds in 2Q12 by 6.1% and 3.5% q-o-q, respectively. On a y-o-y basis, however, the PRC's stock of treasury bills fell 29.0%, while its stock of treasury bonds rose 8.8%. This balanced out to no change in the PRC's ratio of treasury bills to treasury bonds, which remained at 0.03 in 2Q12.

The region's total stock of treasury bills was only US$100 billion at the end of 2Q12, a relatively small figure compared with the region's total bills outstanding of US$377 billion, comprising both treasury and central bank bills, and total treasury bonds outstanding of US$1.8 trillion. The largest stock of treasury bills in emerging East Asia in 2Q12 was in Singapore at US$47 billion. (Singapore's ratio of treasury bills to treasury bonds was unchanged in 2012 at 0.7.) Singapore's stock of treasury bills has surpassed that of the PRC. The PRC's stock of treasury bills stood at a level of US$32 billion at the end of 2Q12.

The other four markets that issue both treasury bills and bonds—Indonesia, the Republic of Korea, Malaysia, and Thailand—issue relatively small amounts of treasury bills, resulting in much lower ratios of treasury bills to treasury bonds, ranging from 0.01 in Malaysia to 0.04 in Indonesia.

Foreign Holdings

Foreign holdings of government bonds leveled off in several markets in the first half of 2012.

The rapid growth of foreign holdings among the region's LCY bond markets tapered off in the first half of 2012, except in Malaysia and Thailand **(Figure 4)**. Foreign holdings of Malaysian government bonds rose to 27.3% of the total at end-March and foreign holdings of Thai government bonds rose to 13.2% of the total at end-June.

In the case of Indonesia, the share of foreign holdings of government bonds fell from 30.8% at the end of 2011 to 29.6% at end-March and 28.4% at end-June. Also at the end of June, foreign holdings of Indonesian government bonds with maturities of 5 years or more stood at IDR150.9 trillion, or 67.3% of total foreign holdings, compared with 63.2% at the end of 2011 **(Figure 5)**. Foreign holdings of shorter-dated tenors (maturities of less than 1 year) fell to 10.6% of the total at the end of June, compared with 11.9% at the end of 2011.

Foreign holdings of government bonds in the Republic of Korea have remained at a level of around 11.2% of the total since September of 2011. Net foreign investment flows into the bond market of the Republic of Korea—defined to include corporate as well as government bonds—have remained volatile in recent months **(Figure 6)**.

Government Bond Yield Curves

Government bond yield curves in emerging East Asia shifted downward in most markets during the first half of 2012 on the back of moderating inflation.

Yields for government bonds have risen for most emerging East Asian government bond markets

Table 5: Government Bills-to-Bonds Ratios in LCY Bond Markets

	2Q11		1Q12		2Q12		Government Bills-to-Bonds Ratio			Growth Rate (LCY-base %)		Growth Rate (US$-base %)	
										2Q12		2Q12	
	Amount (US$ billion)	% share	Amount (US$ billion)	% share	Amount (US$ billion)	% share	2Q11	1Q12	2Q12	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of (PRC)													
Total	1,394	100.0	1,329	100.0	1,309	100.0				(0.6)	(7.7)	(1.5)	(6.1)
Total Bills	247	17.7	124	9.3	80	6.1	0.22	0.10	0.07	(34.8)	(68.1)	(35.4)	(67.6)
Treasury Bills	44	3.2	30	2.3	32	2.4	0.05	0.03	0.03	6.1	(29.0)	5.1	(27.8)
Central Bank Bills	203	14.5	94	7.0	48	3.7	0.89	0.44	0.23	(48.1)	(76.7)	(48.6)	(76.3)
Total Bonds	1,147	82.3	1,205	90.7	1,229	93.9				2.9	5.3	2.0	7.2
Treasury Bonds	920	66.0	993	74.7	1,018	77.8				3.5	8.8	2.6	10.7
Central Bank Bonds	227	16.3	212	16.0	211	16.1				0.0	(8.8)	(0.9)	(7.3)
Hong Kong, China													
Total	88	100.0	91	100.0	93	100.0				2.1	5.3	2.2	5.6
Total Bills	75	85.4	76	83.2	76	81.5	5.87	4.94	4.42	0.1	0.4	0.3	0.8
Treasury Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Central Bank Bills	75	85.4	76	83.2	76	81.5	8.40	8.46	8.51	0.1	0.4	0.3	0.8
Total Bonds	13	14.6	15	16.8	17	18.5				12.0	33.5	12.1	34.0
Treasury Bonds	4	4.4	6	7.0	8	8.9				29.3	113.3	29.4	114.0
Central Bank Bonds	9	10.2	9	9.8	9	9.6				(0.4)	(0.9)	(0.3)	(0.6)
Indonesia													
Total	103	100.0	94	100.0	94	100.0				3.0	0.5	(0.2)	(8.6)
Total Bills	25	24.2	14	15.2	13	13.8	0.32	0.18	0.16	(6.6)	(42.5)	(9.4)	(47.7)
Treasury Bills	3	2.7	4	3.8	3	3.3	0.04	0.04	0.04	(10.3)	24.4	(13.1)	13.2
Central Bank Bills	22	21.5	11	11.4	10	10.5	–	–	–	(5.3)	(50.9)	(8.2)	(55.3)
Total Bonds	78	75.8	80	84.8	81	86.2				4.7	14.1	1.5	3.8
Treasury Bonds	78	75.8	80	84.8	81	86.2				4.7	14.1	1.5	3.8
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Korea, Rep. of													
Total	479	100.0	483	100.0	471	100.0				(1.3)	5.5	(2.4)	(1.6)
Total Bills	40	8.4	42	8.7	46	9.8	0.09	0.10	0.11	10.9	22.6	9.7	14.3
Treasury Bills	3	0.6	4	0.8	7	1.5	0.01	0.01	0.02	77.4	174.4	75.5	155.7
Central Bank Bills	37	7.8	38	7.8	39	8.2	0.31	0.33	0.38	3.7	11.2	2.6	3.7
Total Bonds	439	91.6	441	91.3	425	90.2				(2.5)	4.0	(3.5)	(3.1)
Treasury Bonds	320	66.8	326	67.6	324	68.7				0.2	8.5	(0.9)	1.2
Central Bank Bonds	119	24.8	114	23.7	102	21.6				(10.1)	(8.3)	(11.0)	(14.6)
Malaysia													
Total	160	100.0	179	100.0	176	100.0				1.6	15.4	(2.0)	9.7
Total Bills	37	23.3	48	26.7	46	26.2	0.30	0.36	0.35	(0.3)	29.8	(3.8)	23.4
Treasury Bills	1	0.9	1	0.8	1	0.8	0.01	0.01	0.01	0.0	0.0	(3.5)	(5.0)
Central Bank Bills	36	22.4	46	25.9	45	25.4	–	–	–	(0.3)	31.0	(3.8)	24.5
Total Bonds	123	76.7	132	73.3	130	73.8				2.3	11.0	(1.3)	5.5
Treasury Bonds	123	76.7	132	73.3	130	73.8				2.3	11.0	(1.3)	5.5
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Philippines													
Total	63	100.0	70	100.0	72	100.0				1.9	11.7	3.7	15.0
Total Bills	9	14.0	6	8.9	6	8.4	0.16	0.10	0.09	(4.7)	(33.1)	(3.0)	(31.2)
Treasury Bills	9	14.0	6	8.9	6	8.4	0.16	0.10	0.09	(4.7)	(33.1)	(3.0)	(31.2)
Central Bank Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Total Bonds	54	86.0	63	91.1	66	91.6				2.5	19.0	4.4	22.5
Treasury Bonds	54	86.0	63	91.1	66	91.6				2.5	19.0	4.4	22.5
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–

continued on next page

Table 5 *continued*

	2Q11		1Q12		2Q12		Government Bills-to-Bonds Ratio			Growth Rate (LCY-base %) 2Q12		Growth Rate (US$-base %) 2Q12	
	Amount (US$ billion)	% share	Amount (US$ billion)	% share	Amount (US$ billion)	% share	2Q11	1Q12	2Q12	q-o-q	y-o-y	q-o-q	y-o-y
Singapore													
Total	117	100.0	129	100.0	130	100.0				1.5	14.1	0.9	10.8
Total Bills	52	44.0	61	47.7	63	48.5	0.79	0.91	0.94	3.1	25.8	2.5	22.1
Treasury Bills	47	40.2	47	36.6	47	36.1	0.72	0.70	0.70	0.0	2.2	(0.6)	(0.7)
Central Bank Bills	4	3.8	14	11.1	16	12.4	–	–	–	13.3	277.8	12.7	266.8
Total Bonds	66	56.0	67	52.3	67	51.5				0.0	5.0	(0.6)	1.9
Treasury Bonds	66	56.0	67	52.3	67	51.5				0.0	5.0	(0.6)	1.9
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Thailand													
Total	162	100.0	185	100.0	189	100.0				4.8	19.6	2.4	16.5
Total Bills	42	25.7	47	25.3	44	23.2	0.35	0.34	0.30	(4.0)	8.0	(6.2)	5.1
Treasury Bills	0	0.0	1	0.7	3	1.7	0.00	0.01	0.03	150.0	–	144.2	–
Central Bank Bills	42	25.7	45	24.6	41	21.5	1.12	0.93	0.76	(8.4)	0.2	(10.5)	(2.5)
Total Bonds	120	74.3	138	74.7	145	76.8				7.7	23.7	5.2	20.4
Treasury Bonds	83	51.3	89	48.1	92	48.6				5.9	13.4	3.5	10.4
Central Bank Bonds	37	23.0	49	26.6	53	28.2				11.0	46.6	8.4	42.8
Viet Nam													
Total	6	100.0	9	100.0	12	100.0				23.9	86.5	23.6	83.6
Total Bills	0.1	1.6	2	16.5	3	27.2	0.02	0.20	0.37	104.7	3,050.0	104.1	3,001.7
Treasury Bills	0.1	1.6	0.1	0.9	0.4	3.3	0.02	0.01	0.05	338.6	284.3	337.5	278.5
Central Bank Bills	0	0.0	1	15.5	3	23.9	–	–	–	90.6	–	90.1	–
Total Bonds	6	98.4	8	83.5	8	72.8				8.0	38.0	7.8	35.9
Treasury Bonds	6	98.4	8	83.5	8	72.8				8.0	38.0	7.8	35.9
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Emerging East Asia (EEA)													
Total	2,573	100.0	2,568	100.0	2,546	100.0				0.3	0.2	(0.9)	(1.0)
Total Bills	527	20.5	420	16.3	377	14.8	0.26	0.20	0.17	(9.1)	(27.8)	(10.2)	(28.5)
Treasury Bills	107	4.2	94	3.7	100	3.9	0.06	0.05	0.06	7.0	(6.1)	6.2	(6.8)
Central Bank Bills	419	16.3	325	12.7	277	10.9	1.07	0.85	0.74	(13.8)	(33.4)	(14.9)	(34.0)
Total Bonds	2,046	79.5	2,149	83.7	2,169	85.2				2.1	7.4	0.9	6.0
Treasury Bonds	1,654	64.3	1,764	68.7	1,794	70.5				2.9	10.0	1.7	8.5
Central Bank Bonds	392	15.2	385	15.0	374	14.7				(1.6)	(3.3)	(2.7)	(4.6)
EEA Less PRC													
Total	1,179	100.0	1,239	100.0	1,237	100.0				1.3	10.1	(0.2)	4.9
Total Bills	280	23.7	296	23.8	297	24.0	0.31	0.31	0.32	1.7	9.6	0.4	6.1
Treasury Bills	63	5.3	64	5.1	68	5.5	0.09	0.08	0.09	7.4	10.8	6.7	8.0
Central Bank Bills	217	18.4	232	18.7	229	18.5	1.31	1.34	1.40	0.1	9.2	(1.3)	5.6
Total Bonds	899	76.3	944	76.2	940	76.0				1.1	10.2	(0.4)	4.5
Treasury Bonds	734	62.3	771	62.2	776	62.8				2.2	11.4	0.6	5.8
Central Bank Bonds	165	14.0	172	13.9	164	13.2				(3.6)	4.9	(5.0)	(0.9)
Japan													
Total	9,482	100.0	9,422	100.0	9,888	100.0				1.0	3.3	4.9	4.3
Total Bills	372	3.9	362	3.8	376	3.8	0.04	0.04	0.04	(0.0004)	(0.001)	3.9	1.0
Treasury Bills	372	3.9	362	3.8	376	3.8	0.04	0.04	0.04	(0.0004)	(0.001)	3.9	1.0
Central Bank Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Total Bonds	9,109	96.1	9,060	96.2	9,512	96.2				1.1	3.4	5.0	4.4
Treasury Bonds	9,109	96.1	9,060	96.2	9,512	96.2				1.1	3.4	5.0	4.4
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–

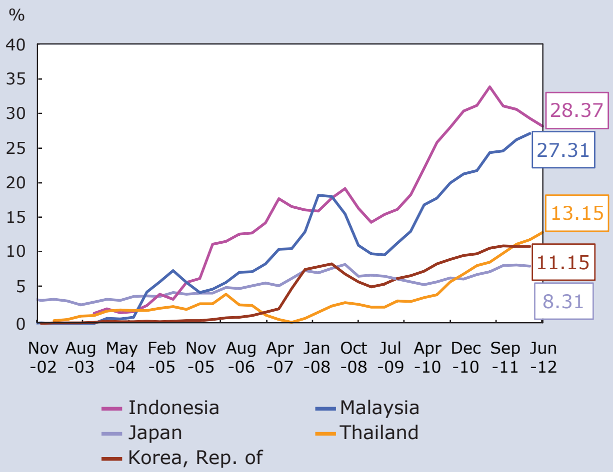
– = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.

Notes:

1. Bloomberg LP end-of-period LCY–US$ rates are used.
2. For LCY-base, emerging East Asia growth figures are based on end-June 2012 currency exchange rates and do not include currency effects.
3. Total figures per market refer to bills and bonds issued by the central government and the central bank. It excludes bonds issued by policy banks and state-owned enterprises. Bills are defined as securities with original maturities of less than 1 year.

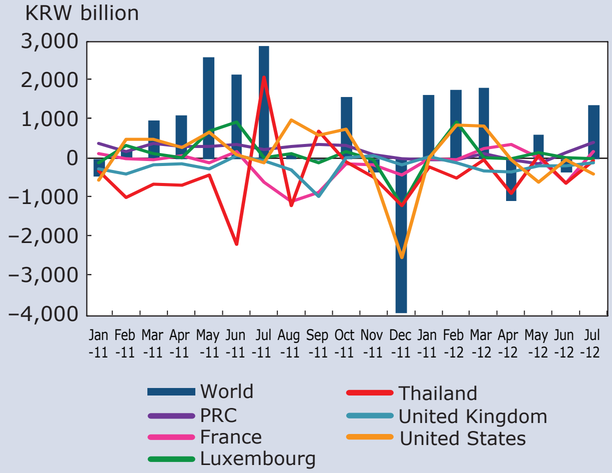
Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia and Indonesia Stock Exchange); Republic of Korea (Bloomberg LP); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury); Singapore (Monetary Authority of Singapore); Thailand (Bank of Thailand and Bloomberg LP); Viet Nam (Bloomberg LP); and Japan (Japan Securities Dealers Association).

Figure 4: Foreign Holdings of LCY Government Bonds in Select Asian Economies (% of total)



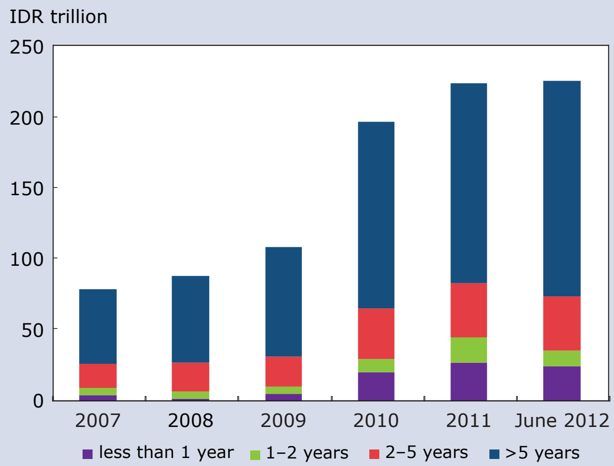
LCY = local currency.
Note: Data as of end-March 2012 except for Indonesia and Thailand as of end-June 2012.
Source: *AsianBondsOnline*.

Figure 6: Net Foreign Investment by Country in LCY Bonds in the Republic of Korea, January 2011–July 2012



LCY = local currency, PRC = People's Republic of China.
Source: Financial Supervisory Service (FSS).

Figure 5: Foreign Holdings of Indonesian LCY Government Bonds by Maturity, 2007–June 2012



LCY = local currency.
Source: Indonesia Debt Management Office.

in recent months. In August, government bond yields rose for all tenors in the PRC, Indonesia, and Viet Nam, and for most tenors in Hong Kong, China; Malaysia; Singapore; and Thailand. Yields rose most for shorter tenors in the PRC. Yields have fallen, however, in recent months for most tenors at the shorter-end of the Philippine curve and for all tenors in the Republic of Korea.

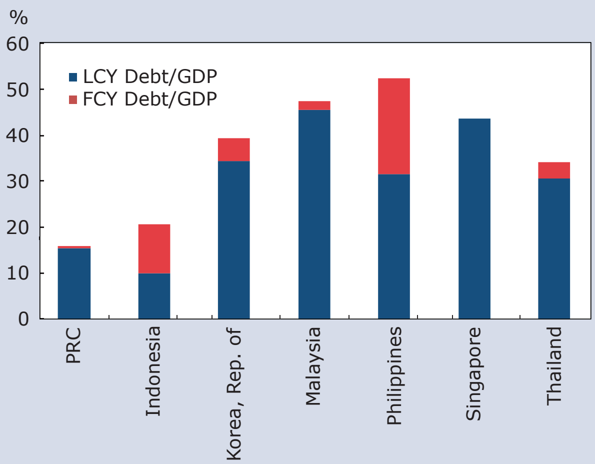
Despite the recent uptick in yields, Asia stands out for its relatively robust credit ratings at a time when sovereign ratings in the EU and elsewhere have come under pressure **(Table 6)**. Two important reasons for the optimistic outlook for Asian credit ratings are the relatively low ratios of government debt to GDP **(Figure 7)** and the relatively high ratios of government revenue to GDP **(Figure 8)**. The ratios of government debt to GDP are under 50% in most countries in the region. Furthermore, most of this debt is LCY-denominated. Only the

Table 6: Sovereign Credit Ratings

	S&P	Moody's	Fitch
China, People's Rep. of	AA–	Aa3	A+
Hong Kong, China	AAA	Aa1	AA+
Indonesia	BB+	Baa3	BBB–
Korea, Rep. of	A	Aa3	AA–
Malaysia	A–	A3	A–
Philippines	BB+	Ba2	BB+
Singapore	AAA	Aaa	AAA
Thailand	BBB+	Baa1	BBB

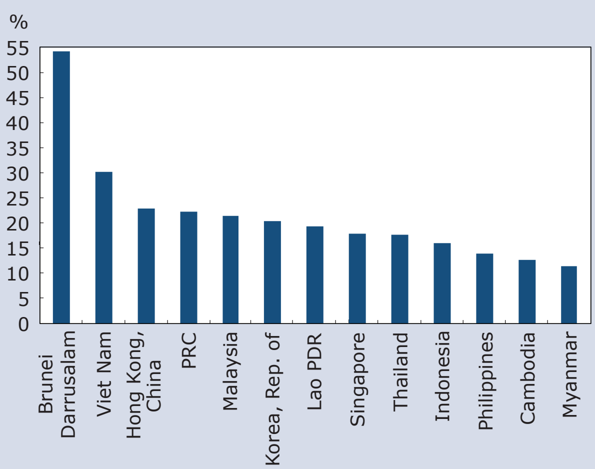
Note: Ratings as of 10 September 2012.
Source: Rating Agencies.

Figure 7: Ratios of LCY and FCY Government Debt to GDP, 1Q12



FCY = foreign currency, GDP = gross domestic product, LCY = local currency, PRC = People's Republic of China.
Note: Data as of 31 March 2012.
Source: *AsianBondsOnline*.

Figure 8: Central Government Revenue, 2011
(% of GDP)

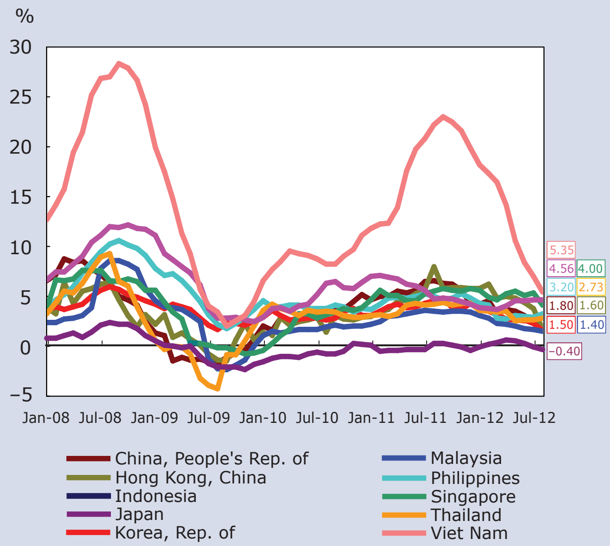


GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.
Note: Brunei Darrusalam data as of 2010.
Source: ADB's *Asian Development Outlook 2012*.

Philippines and Indonesia have a larger amount of their debt denominated in foreign currency (FCY) than in LCY.

The ratio of revenue to GDP is at a comfortable level of about 20% or higher in most of the larger economies in emerging East Asia, with the exception of Indonesia and the Philippines, whose ratios are 16.1% and 14.0% of GDP, respectively.

Figure 9: Headline Inflation Rates, July 2012



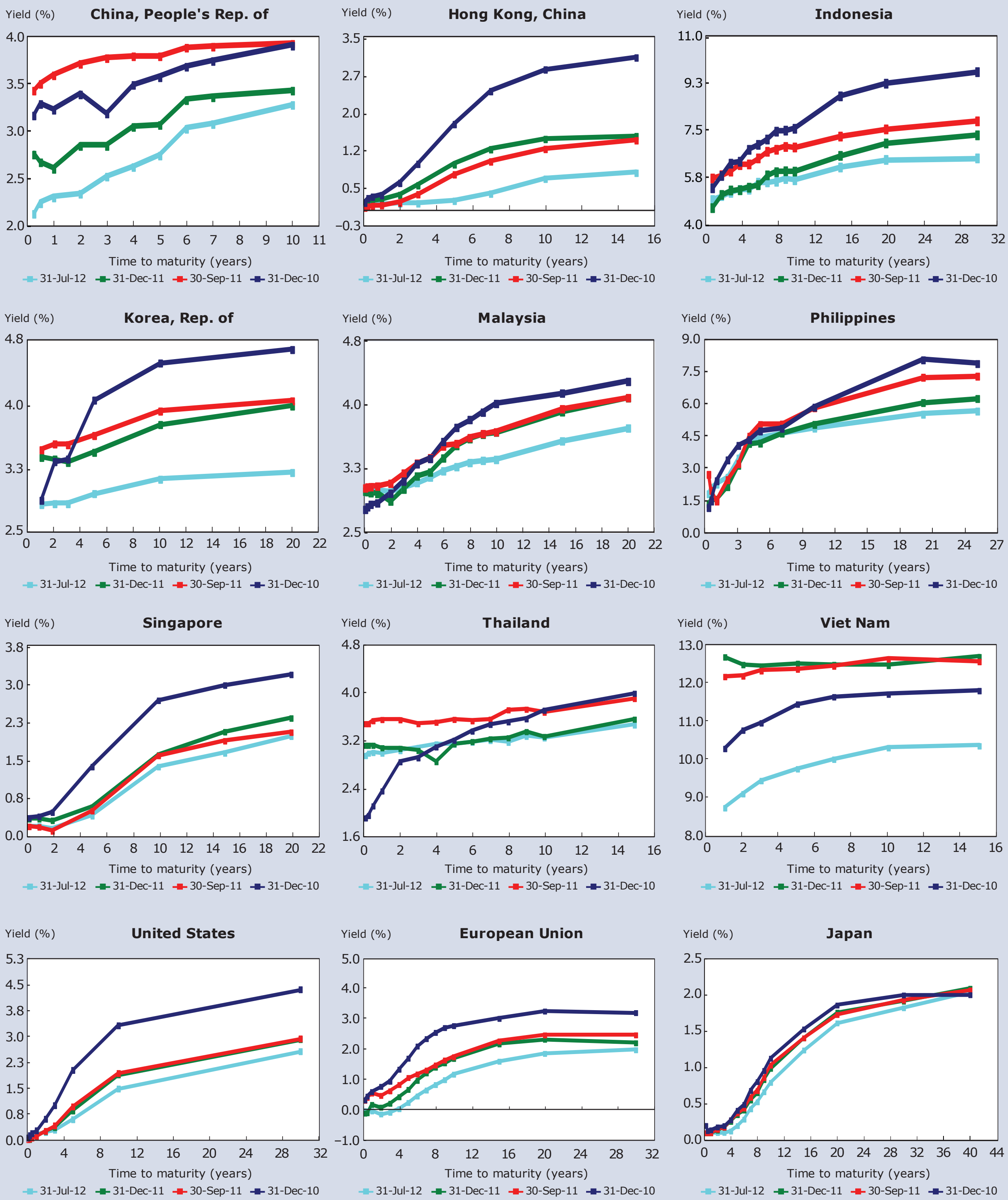
Source: Bloomberg LP.

Inflation has been subdued throughout the region. **Figure 9** shows the trend in inflation rates. Inflation rates in most Asian countries are currently around 3% or lower, with the notable exceptions of Indonesia, Singapore, and Viet Nam. The Philippines' inflation rate had been at 3% or lower since January, until it rose to 3.2% in July. The inflation rate of the Republic of Korea, on the other hand, fell to 1.5% in July from 2.2% in June, and decreased further to 1.2% in August.

The consequences of these developments on the individual government bond yield curves of emerging East Asia have been varied **(Figure 10)**. For example, the yield curve of the PRC shifted downward between end-December 2011 and end-July 2012, while also steepening in the process as short-term yields fell more than long-term yields: between 43 basis points (bps) and 62 bps for tenors of less than 1 year, 32 bps for the 5-year maturity, and 15 bps for the 10-year maturity.

The government bond yield curves for Indonesia, Malaysia, the Philippines, Singapore, and Thailand all flattened between end-December and end-July, with long-term yields generally falling much more than short-term yields. The most dramatic case of a yield curve flattening among these five markets was the Philippines, which experienced a rise in

Figure 10: Benchmark Yield Curves—LCY Currency Bonds



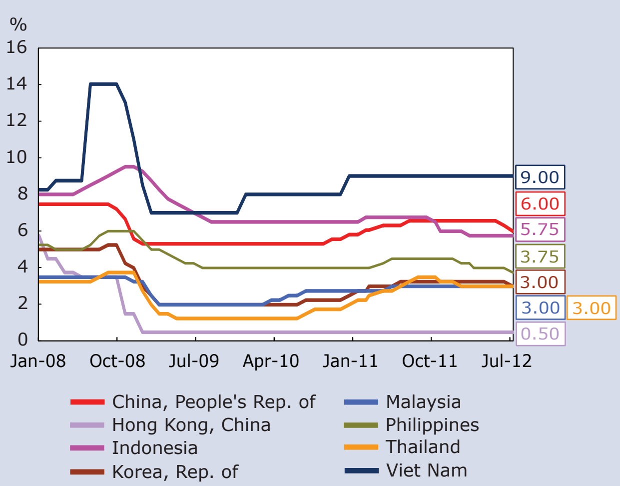
LCY = local currency.
Source: Based on data from Bloomberg LP.

yields for bonds with maturities of 7 years or less, while yields for maturities of 10 years or more fell 17 bps–59 bps. The fall in Thai yields has been much more modest than in other markets, and has actually been most significant at the very short- and very long-end of the yield curve. Thai government bills with maturities of less than 1 year fell between 12 bps and 17 bps, while Thai government bonds with a maturity of 15 years fell 10 bps. Yields for bonds with maturities in the middle of the curve fell by low single digits; in the case of Thai 3- and 4-year maturities, yields actually rose.

The yield curves for the Republic of Korea and Viet Nam can best be described as having shifted downward along most of their length between the end of December 2011 and the end of July. Yields on bonds in the Republic of Korea fell 49 bps–79 bps from the shorter- to longer-end of the curve between end-December and end-July. The large inflows of foreign capital have been very important in explaining the large decline in yields along the entire yield curve of the Republic of Korea. Yields on Vietnamese government bonds have fallen between 215 bps and 394 bps along the curve.

The region-wide downward shifting of yield curves has also been supported by a growing inclination among monetary authorities in the region to reduce their policy rates **(Figure 11)**.

Figure 11: Policy Rates, January 2008–July 2012



Source: Bloomberg LP except for Viet Nam (State Bank of Viet Nam).

Some of the more important developments in explaining the movement of individual yield curves in emerging East Asia in 2012 include the following:

(i) The fall in yields along the PRC's curve was driven mostly by a continued decline in the inflation rate and a number of monetary policy easing measures. Inflation fell to 3.4% y-o-y in April from 3.6% in March and has continued to fall since then, decelerating to 3.0% in May, 2.2% in June, and 1.8% in July. This most recent decline in inflation, along with a weakened export performance in July, has raised expectations of further easing of monetary policy in coming months.

(ii) The policy rates of the PBOC were cut for the first time in 3 years in the first week of June, by 25 bps for all rates, and again by 25 bps and 31 bps for the 1-year deposit rate and 1-year lending rate, respectively, in the first week of July. In addition, the PBOC expanded the range in which banks could vary their deposit and lending rates from the benchmark policy rates. Reserve requirement ratios were also cut twice in the first half of 2012, each time by 50 bps. Furthermore, the PBOC has not issued any central bank bills or bonds this year, thereby increasing the money supply by allowing existing central bank bills and bonds to mature.

(iii) The Bank of Korea decided not to lower its base rate—the 7-day repurchase rate—in the first half of 2012 out of concern over lingering inflationary pressures. However, these concerns have eased since the end of 2Q12 as the Republic of Korea's export performance weakened and consumer price inflation fell to 2.2% y-o-y in June. In response, The Bank of Korea cut its base rate by 25 bps to 3.0% on 12 July. Consumer price inflation subsequently fell even further in July to 1.5% y-o-y. In August, consumer price inflation stood at 1.2% y-o-y.

(iv) Consumer price inflation in the Philippines rose slightly to 3.2% y-o-y in July, after having fallen in June to 2.8% from 2.9% in May. The fall of inflation rates in May and June led Bangko Sentral Pilipinas (BSP) to cut its policy rates in July by 25 bps, pushing them to new record lows following rate cuts in January and March. This most recent cut lowered the overnight borrowing (reverse repurchase) and lending (repurchase) rates to 3.75% and 5.75%, respectively.

(v) Bank Negara Malaysia (BNM), on the other hand, has not felt it necessary to move its policy rate yet this year. At its Monetary Policy Committee meeting on 5 July, BNM decided to keep its overnight policy rate steady at 3.0%, the same level it has been at since May 2011. According to BNM, Malaysia's domestic consumption and investment activity remain resilient, while inflation is expected to remain moderate at 2%–3% for the full-year 2012.

(vi) MAS has acknowledged that consumer price inflation in Singapore will likely reach 4.0%–4.5% this year, but that it will continue with its policy of modest and gradual appreciation, and slightly increase the slope of the policy band of the Singapore dollar nominal effective exchange rate (S$NEER). Also, in July, MAS announced that it was considering issuing inflation-linked bonds to retail investors seeking to preserve their savings in light of the prevailing near-zero interest rates being offered by Singapore's banks.

(vii) The BOT reduced its policy rate—the 1-day repurchase rate—by 25 bps to 3.0% on 25 January. There have been no further reductions by BOT's Monetary Policy Committee since then, including at its most recent meeting on 5 September. Thailand's consumer price inflation stood at 2.7% y-o-y in July, compared with 2.6% in June and 2.5% in both May and April. In August, consumer price inflation was 2.7% y-o-y.

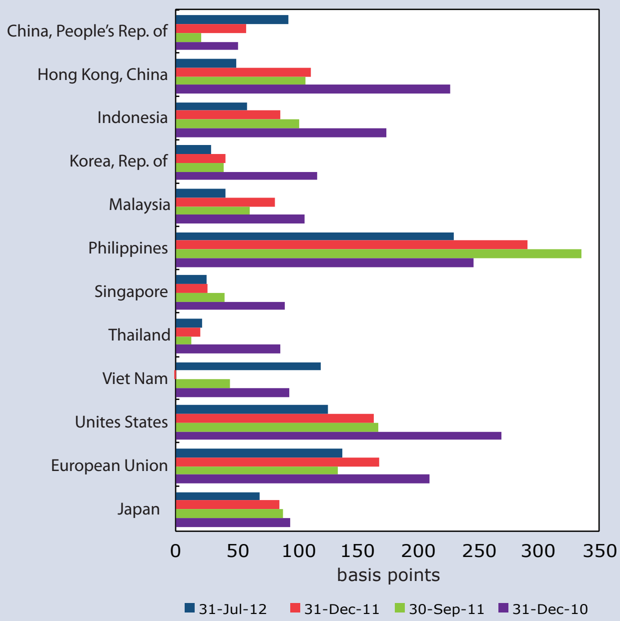
(viii) Indonesia's consumer price inflation accelerated in July, mainly on account of higher food prices. Inflation rose to 4.56% y-o-y from 4.53% in June, but was still within the central bank's full-year target range of 3.5%–5.5%. On 12 July, Bank Indonesia's (BI) Board of Governors decided to keep the benchmark rate steady at 5.75%. The BI rate has been kept at its current record-low level since February. According to the central bank, the benchmark rate at its current level remains consistent with BI's inflation target. The central bank also said that it will remain vigilant in monitoring global economic conditions as they affect Indonesia's external performance.

The most dramatic change among the yield curves of emerging East Asia, however, may have been in Hong Kong, China, where the yield curve for EFBNs shifted so far downward between end-December and end-July that actual yields were only 79 bps at the longer-end of the curve (15-year maturity). The downward shift was greatest in the 7-year tenor, which fell 89 bps. The longer-end shifted downward much more than the shorter-end, falling between 72 bps and 89 bps. The shorter-end of the yield curve, in contrast, fell only 7 bps–9 bps.

The effect of these trends on the yield spreads between 2- and 10-year government bonds is shown in **Figure 12**. Yield spreads fell in all markets—except the PRC, Thailand, and Viet Nam—between end-December and end-July. In Thailand, the spread between the 2- and 10-year maturities did not decline on account of the relative stability of the Thai yield curve. In the cases of the PRC and Viet Nam, yields at the shorter-end of the curve fell more than at the longer-end.

The strengthening of regional exchange rates has been an additional factor in attracting foreign funds and exerting downward pressure on yield curves **(Table 7)**.

Figure 12: Yield Spreads Between 2- and 10-Year Government Bonds



Source: Based on data from Bloomberg LP.

Table 7: Appreciation (Depreciation) of Emerging East Asian Currencies (%)

Currency	2010	2011	As of 31 July 2012	
	y-o-y	y-o-y	y-o-y	q-o-q
CNY	3.3	4.8	1.2	(0.1)
HKD	(0.2)	0.1	0.5	0.04
IDR	4.4	(0.8)	(10.7)	(0.4)
KRW	3.3	(2.3)	(7.0)	1.3
MYR	11.2	(3.4)	(5.3)	1.5
PHP	5.2	(0.1)	0.9	0.9
SGD	9.0	(1.0)	(3.3)	1.6
THB	10.4	(4.8)	(5.7)	0.1
VND	(5.4)	(7.6)	(1.3)	0.2
JPY	13.7	5.3	(1.8)	2.1

q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Appreciation (depreciation) is equal to –LN(end-of-period rate/start-of-period rate).
2. For 31 July 2012 q-o-q figures, appreciation (depreciation) is equal to –LN(31 July 2012 rate/end-2Q12 rate).
Source: Bloomberg LP.

Corporate Bond Credit Spreads

Corporate bond credit spreads have generally tightened in the high-grade segments of LCY corporate bond markets since the end of 2011, while widening in the high-yield segments.

This trend is especially clear for the high-grade markets of the PRC and the Republic of Korea, but somewhat less clear for Malaysia and Thailand **(Figure 13a)**. The tightening of credit spreads in the high-grade segments of the LCY corporate bond market in the PRC would seem to reflect the monetary easing discussed previously. Monetary easing in the Republic of Korea is also a factor, along with foreign investment inflows into agencies (government-owned corporations and financial institutions). The tightening trend for high-grade bonds was less clear in the Malaysian market. Meanwhile, credit spreads widened somewhat or changed little for some longer-dated maturities in the Thai high-grade market.

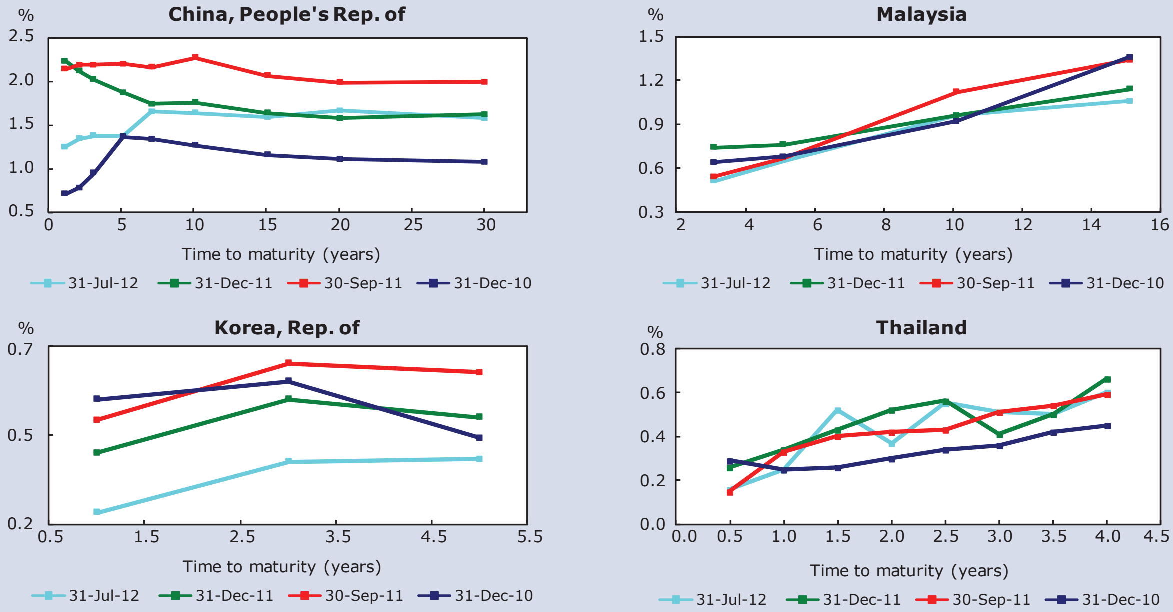
In the high-yield markets, credit spreads generally widened between the end of 2011 and the end of July, with the exception of the Republic of Korea's entire credit spread curve **(Figure 13b)**. The widening of credit spreads was most pronounced along the PRC's entire high-yield corporate credit curve, as well as at the longer-end of the credit curve for Thai high-yield corporate bonds.

G3 Currency Bond Issuance

G3 currency bond issuance in Asia grew dramatically between the end of 2011 and end-July to reach US$81.2 billion, resulting in YTD issuance 8.3% higher than the US$75.0 billion of G3 currency bonds issued in all of 2011.

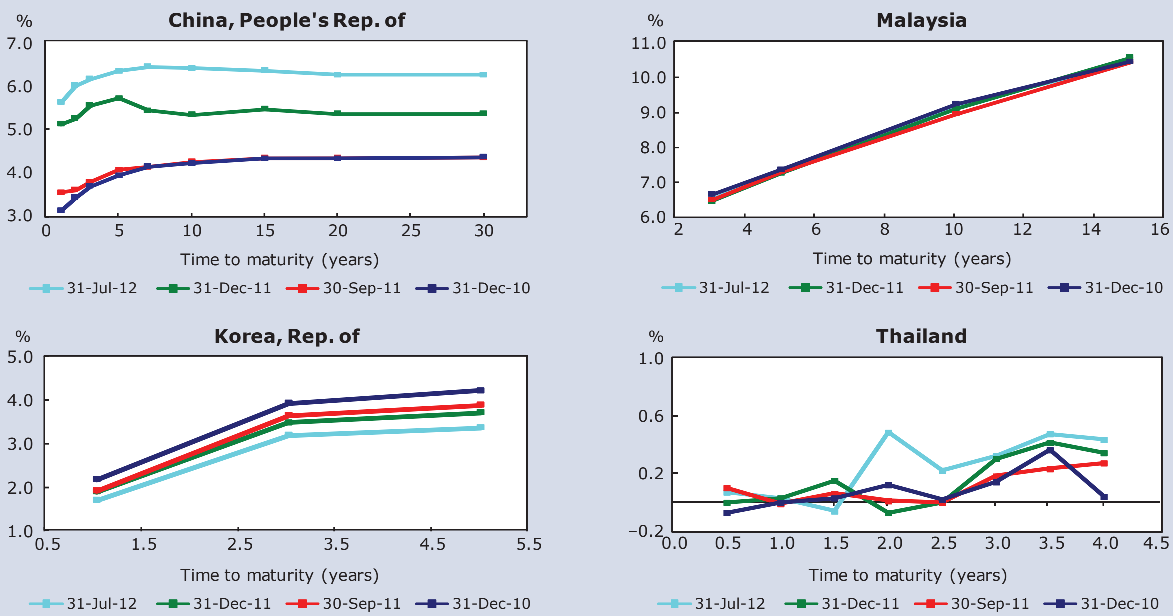
Growth of the G3 currency bond market in 2012 has been driven mainly by issuance in Hong Kong, China; Indonesia; Malaysia; and Singapore **(Table 8)**. The large volumes of issuance in these markets—Hong Kong, China's issuance in the first 7 months of the year was US$18.5 billion compared with US$8.6 billion in all of 2011—offset declines in issuance in the traditionally larger markets of

Figure 13a: Credit Spreads—LCY Corporates Rated AAA vs. Government Bonds



LCY = local currency.
Note: Credit spreads are obtained by subtracting government yields from corporate indicative yields.
Source: People's Republic of China (*ChinaBond*); Republic of Korea (EDAILY *BondWeb*); Malaysia (Bank Negara Malaysia); and Thailand (ThaiBMA).

Figure 13b: Credit Spreads—Lower Rated LCY Corporates vs. LCY Corporates Rated AAA



LCY = local currency.
Notes:
1. For the People's Republic of China, credit spreads are obtained by subtracting corporate indicative yields rated as AAA from corporate indicative yields rated as BBB.
2. For Malaysia, credit spreads are obtained by subtracting corporate indicative yields rated as AAA from corporate indicative yields rated as BBB.
3. For the Republic of Korea, credit spreads are obtained by subtracting corporate indicative yields rated as AAA from corporate indicative yields rated as BBB+.
4. For Thailand, credit spreads are obtained by subtracting corporate indicative yields rated as AAA from corporate indicative yields rated as A.
Source: People's Republic of China (*ChinaBond*); Republic of Korea (EDAILY *BondWeb*); Malaysia (Bank Negara Malaysia); and Thailand (ThaiBMA).

Table 8: G3 Currency Bond Issuance, 2011 and 1 January–31 July 2012

2011

Issuer	US$ (million)	Issue Date
China, People's Rep. of	**17,829**	
CNOOC Finance 4.25% 2021	1,500	26-Jan-11
Country Garden 11.125% 2018	900	23-Feb-11
China Resources Power 7.25% Perpetual	750	9-May-11
Citic Pacific 7.875% Perpetual	750	15-Apr-11
ENN Energy 6.0% 2021	750	13-May-11
Longfor Properties 9.5% 2016	750	7-Apr-11
Others	12,429	
Hong Kong, China	**8,565**	
Bank of China (Hong Kong) 3.75% 2016	750	8-Nov-11
China Resources Land 4.625% 2016	750	19-May-11
HSBC 1.0599% 2014	500	31-May-11
Newford Capital 0.0% 2016	500	12-May-11
The Hong Kong Mortgage Corp. 0.5293% 2013	450	15-Apr-11
Others	5,615	
Indonesia	**6,673**	
Indonesia (sovereign) 4.875% 2021	2,500	5-May-11
Pertamina 5.25% 2021	1,000	23-May-11
PLN 4.0% 2018	1,000	21-Nov-11
Others	2,173	
Korea, Rep. of	**32,035**	
Korea Development Bank 3.875% 2017	1,000	4-Nov-11
Korea Eximbank 4.375% 2021	1,000	15-Sep-11
Korea National Oil Corp. 4.0% 2016	1,000	27-Oct-11
Korea Development Bank 4.0% 2016	750	9-Mar-11
Korea Finance 4.625% 2021	750	16-Nov-11
Korea Eximbank (*samurai*) 0.93% 2013	741	8-Jul-11
Hyundai Capital 4.375% 2016	700	27-Jan-11
Korea Eximbank 3.75% 2016	700	20-Apr-11
Posco 5.25% 2021	700	14-Apr-11
Others	24,694	
Malaysia	**3,100**	
Wakala Global (*sukuk*) 2.991% 2016	1,200	6-Jul-11
Others	1,900	
Philippines	**3,450**	
Philippines (sovereign) 5.5% 2026	1,500	30-Mar-11
San Miguel Corp. 2.0% 2014	600	5-May-11
Energy Development Corp. 6.5% 2021	300	20-Jan-11
Others	1,050	
Singapore	**1,868**	
SingTel Group 4.5% 2021	600	8-Mar-11
Others	1,268	
Thailand	**1,370**	
PTTEP 5.692% 2021	700	5-Apr-11
Others	670	
Viet Nam	**90**	
Emerging East Asia Total	**74,981**	
Memo Items:		
India	**11,673**	
Novelis 8.75% 2020	1,400	13-Apr-11
Novelis 8.375% 2017	1,100	13-Apr-11
ICICI Bank 4.75% 2016	1,000	25-May-11
Others	8,173	
Sri Lanka	**1,512**	

1 January—31 July 2012

Issuer	US$ (million)	Issue Date
China, People's Rep. of	**15,579**	
CNOOC Finance 3.875% 2022	1,500	2-May-12
Sinopec 2.75% 2017	1,000	17-May-12
Sinopec 3.9% 2022	1,000	17-May-12
Sinopec 4.875% 2042	1,000	17-May-12
China Overseas Finance 4.875% 2017	750	15-Feb-12
Citic Pacific 6.875% 2018	750	21-Mar-12
Others	9,579	
Hong Kong, China	**18,455**	
Hutchison Whampoa 2.5% 2017	1,538	6-Jun-12
Hutchison Whampoa 4.625% 2022	1,500	13-Jan-12
Hutchison Whampoa 3.5% 2017	1,000	13-Jan-12
Hutchison Whampoa 6.0% Perpetual	1,000	7-May-12
Wharf Finance 4.625% 2017	900	8-Feb-12
Others	12,517	
Indonesia	**9,021**	
Indonesia (sovereign) 3.75% 2022	2,000	25-Apr-12
Indonesia (sovereign) 5.25% 2042	1,750	17-Jan-12
Pertamina 6.0% 2042	1,250	3-May-12
Pertamina 4.875% 2022	1,250	3-May-12
Others	2,771	
Korea, Rep. of	**20,942**	
Korea Eximbank 4.0% 2017	1,250	11-Jan-12
Korea Eximbank 5.0% 2022	1,000	11-Jan-12
Korea National Oil Corp. 3.125% 2017	1,000	3-Apr-12
Samsung Electronics 1.75% 2017	1,000	10-Apr-12
Korea Gas 6.25% 2042	750	20-Jan-12
Korea Development Bank 3.5% 2017	750	22-Feb-12
Shinhan Bank 4.375% 2017	700	27-Jan-12
Korea Exchange Bank 3.125% 2017	700	26-Jun-12
Others	13,792	
Malaysia	**5,185**	
1MDB Energy 5.99% 2022	1,750	21-May-12
Others	3,435	
Philippines	**2,625**	
Philippines (sovereign) 5.0% 2037	1,500	13-Jan-12
Others	1,125	
Singapore	**7,717**	
Temasek Financial 2.375% 2023	1,200	23-Jul-12
DBS 2.35% 2017	1,000	28-Feb-12
OCBC Bank 1.625% 2015	1,000	13-Mar-12
Others	4,517	7-Mar-12
Thailand	**1,100**	
Siam Commercial Bank 3.375% 2017	600	19-Mar-12
PTTEP Canada 6.35% 2042	500	12-Jun-12
Viet Nam	**550**	
Emerging East Asia Total	**81,174**	
Memo Items:		
India	**4,524**	
Reliance Holdings 5.4% 2022	1,500	14-Feb-12
Reliance Holdings 5.4% 2022	500	28-Feb-12
Axis Bank 5.125% 2017	500	5-Mar-12
Others	2,024	
Sri Lanka	**2,313**	

Note: Not included in this table is the Philippines' sovereign Global Peso bond, a PHP54.8 billion (US$1.2 billion) 25-year bond issued in January 2011.
Source: Bloomberg LP, newspaper and wire reports.

the PRC and the Republic of Korea during the first 7 months of 2012 compared with full-year 2011. The PRC's issuance of US$15.6 billion during the first 7 months of the year was 12.6% less than the US$17.8 billion issued in all of 2011. The Republic of Korea's issuance of US$20.9 billion was 34.6% less than the US$32.0 billion issued in full-year 2011. On the other hand, the G3 currency bond issuance of Hong Kong, China was 115% larger in the first 7 months of 2012 than it was in all of 2011, and the G3 currency bond issuance of Singapore was 313% larger during the first 7 months of 2012 than in all of 2011.

The largest issuer in Hong Kong, China was Hutchison Whampoa, which issued over US$5 billion of US$-denominated bonds during the first 7 months of 2012, including a US$-denominated perpetual bond. In Indonesia, the sovereign issued US$3.75 billion worth of US$-denominated bonds in the first 7 months of the year, while the state oil company Pertamina issued US$2.5 billion. The single largest G3 currency corporate bond issued to date in 2012 was the US$1.75 billion bond issued by 1MDB Energy of Malaysia. (The 1MDB Energy bond pays a coupon of 5.99%.)

Financial sector issuers have also been particularly active in the G3 currency bond market during the first 7 months of 2012. Korea Eximbank issued two bonds worth a total of US$2.25 billion, Temasek Financial in Singapore issued a 20-year bond for US$1.2 billion, DBS Bank and OCBC Bank of Singapore issued bonds of US$1 billion each, and Siam Commercial Bank of Thailand issued a new bond worth US$600 million.

Market Returns

Market returns for emerging East Asia's LCY bonds show YTD gains in most markets.

The Pan-Asian Index has risen 4.5% year-to-date (YTD) through 31 July compared with 6.8% for 2011 as a whole, while the HSBC ALBI index has risen 4.6% YTD compared with 4.9% for all of 2011 **(Table 9)**.The best performing government bond markets in 2011 were Indonesia and the Philippines, on both an LCY total return and a US$ unhedged basis. Both markets have continued to perform well in the first 7 months of 2012. However, the Indonesian return of 2.9% YTD on a US$ unhedged basis is only one-half of its return

Table 9: iBoxx Asia Bond Fund Index Family Returns

Market	Modified Duration (years)	2010 Returns (%)		2011 Returns (%)		2012 YTD Returns	
		LCY Total Return Index	US$ Unhedged Total Return Index	LCY Total Return Index	US$ Unhedged Total Return Index	LCY Total Return Index	US$ Unhedged Total Return Index
China, People's Rep. of	6.24	1.5	5.1	5.4	9.9	2.9	1.7
Hong Kong, China	4.28	2.0	1.8	5.2	5.2	2.9	3.1
Indonesia	7.04	19.3	23.7	19.7	18.4	6.8	2.9
Korea, Rep. of	4.57	8.0	10.6	6.2	4.7	5.1	6.9
Malaysia	4.99	5.2	15.6	4.7	1.8	3.0	4.1
Philippines	7.15	14.3	19.7	14.8	14.7	5.9	10.6
Singapore	6.35	2.5	11.3	6.3	5.0	3.5	7.7
Thailand	5.04	5.4	15.4	4.9	0.3	2.4	2.3
Pan-Asian Index	5.48	–	10.2	–	6.8	–	4.5
HSBC ALBI	7.48	–	11.5	–	4.9	–	4.6
US Govt. 1–10 years	4.01	–	5.3	–	6.8	–	1.9

– = not applicable, ALBI = Asian Local Bond Index, LCY = local currency, US = United States, YTD = year-to-date.
Notes:
1. The Asian Bond Fund (ABF) indices contain only government debt and government-guaranteed debt obligations.
2. Market bond indices are from iBoxx Index Family. Returns for 2012 are year-to-date as of 31 July 2012.
3. Annual returns are computed for each year using a natural logarithm of end-of-year index value/beginning-of-year index value.
4. Duration as of 31 July 2012.
Source: *AsianBondsOnline* and Bloomberg LP.

on an LCY total return basis, while the Philippine return on a US$ unhedged basis is nearly double its return on an LCY total return basis.

The only other market to experience a significant difference between its rates of return on an LCY total return basis and an US$ unhedged basis is Singapore, which has enjoyed a 7.7% YTD rate of return on a US$ unhedged basis and a more modest LCY total return of 3.5%.

The performance of the region's equity markets has markedly improved in 2012 after a dramatic downturn in 2011 **(Table 10)**. The Far East ex-Japan Index returned about 6%–7% through the first 7 months of 2012 on both an LCY and a US$ basis, compared with 16% and 17% downturns, respectively, in 2011. The most strongly performing equity markets this year have been the Philippines, Singapore, and Thailand. The PRC market's returns, on the other hand, have been slightly less than 3.0% in both LCY and US$ terms. Meanwhile, the Indonesian market has been essentially flat in US$ terms, although it has risen by 4.6% in LCY terms.

Thus, the story for both fixed income and equity markets in emerging East Asia was a positive one in 2Q12. Demand for the region's bonds and equities is being driven by interest from both domestic and foreign investors, who are increasingly viewing Asia as a refuge from the ongoing problems of Europe and the uncertainties of the US.

Table 10: MSCI Index Returns

Market	2010 Returns (%)		2011 Returns (%)		2012 YTD Returns (%)	
	LCY terms	US$ terms	LCY terms	US$ terms	LCY terms	US$ terms
China, People's Rep. of	2.6	2.3	(20.4)	(20.3)	2.6	2.7
Hong Kong, China	20.0	19.7	(18.5)	(18.4)	9.3	9.5
Indonesia	25.8	31.2	4.7	4.0	4.6	0.2
Korea, Rep. of	22.1	25.3	(11.5)	(12.8)	6.1	8.2
Malaysia	19.3	32.5	(0.2)	(2.9)	4.7	6.0
Philippines	23.5	30.3	(3.1)	(3.2)	20.6	26.7
Singapore	8.1	18.4	(20.0)	(21.0)	16.5	21.3
Thailand	36.4	50.8	(1.7)	(5.6)	15.1	15.3
Far East ex-Japan Index	12.5	16.7	(15.6)	(16.8)	5.8	6.8
MSCI US	–	13.2	–	(0.1)	–	9.6

– = not applicable, LCY = local currency, MSCI = Morgan Stanley Capital International, US = United States, YTD = year-to-date.
Notes:
1. Market indices are from MSCI country indexes. 2012 returns are year-to-date as of 31 July 2012.
2. Far East ex-Japan includes the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Taipei,China; and Thailand.

Source: *AsianBondsOnline* and Bloomberg LP.

Policy and Regulatory Developments

People's Republic of China

The PRC Widens CNY Trading Band

On 14 April, the People's Republic of China (PRC) widened the band in which the CNY is allowed to trade against the United States (US) dollar. The trading band was widened from 0.5% to 1.0% above or below the daily reference rate.

The PRC, Japan, and the Republic of Korea Agree to Promote Cross-Border Bond Investment

On 3 May, the PRC, Japan, and the Republic of Korea agreed to enhance trilateral financial cooperation. The three countries agreed to promote investment by their respective foreign reserve authorities in each other's local bond markets.

PBOC Reduces Reserve Requirement Ratios

On 14 May, the People's Bank of China (PBOC) cut banks' reserve requirement ratio by 50 bps. It was the second reserve requirement ratio cut this year.

Pilot Program for SME Bonds Launched

On 23 May, the PRC launched a pilot program for the issuance of private placement bonds by small- and medium-sized enterprises (SMEs). The interest rates for the bonds will be capped at a maximum of three times the benchmark policy rate and the bonds must have maturities of 1 year or more.

The PRC and Japan Begin Direct CNY–JPY Trading

On 30 May, the PRC and Japan began directly trading their currencies, bypassing the need to first convert the currencies into US dollars. Also, unlike CNY–US$ trading, CNY–JPY trading conducted in Japan will not be subject to a peg. However, CNY–JPY trading conducted in the PRC will be subject to a trading peg. The PBOC said that the move will help develop the foreign exchange market and reduce trading costs between the two countries.

PRC Expands Asset-Backed Securitization Program for Banks

On 8 June, the PRC launched a pilot program for asset-backed securitization in the banking sector. The program is an expansion of a prior asset-backed securitization program that was halted in 2008. Under the new program, the investor base will be expanded to include insurance companies, investment funds, corporate pension funds, National Social Security Funds, and other qualified non-bank institutional investors. Ratings from two agencies will be required and the originator is required to maintain a 5% equity tranche in the securitized assets.

The PRC Cuts Benchmark Rates

On 8 June, the PRC cut interest rates by 25 bps for the first time in 3 years. In addition, it adjusted the bands by which banks can vary their rates from the benchmark policy rates. The upper limit for deposit rates was set at 110% and the floor for lending rates was set at 80%. The PRC cut interest rates again on 5 July, this time by 31 bps for the lending rate and 25 bps for the deposit rate. This set the 1-year benchmark lending rate to 6.0% and the deposit rate to 3.0%. Also, the floor for lending rates was adjusted to 70% of the benchmark.

The PRC Limits Local Government Bond Issuance

On 28 June, during the budget session of the Standing Committee of the National People's

Congress, the government rescinded an article in a budget law that would have allowed local governments to issue bonds directly. The move was taken in order to help contain fiscal risks.

The move, however, will not affect the prior approval given to Shanghai, Shenzhen, Guangdong, and Zheijang to issue local government bonds subject to a quota.

NAFMII Issues Guidelines for Asset-Backed Securities of Non-Financial Companies

On 8 August, the National Association of Financial Market Institutional Investors (NAFMII) issued guidelines allowing non-financial corporations to issue asset-backed securities. Previously, only banks were allowed to issue asset-backed securities. Under the guidelines, the bonds can either be sold through the interbank market or via private placement. If the bonds will be sold through the interbank market, there should be at least two ratings from two different rating agencies. Ningbo Urban Construction Investment, Nanjing Public Holding Group, and Shanghai Pudong Road & Bridge Construction were the first to issue bonds under the new rules.

Hong Kong, China

HKMA Removes 20% Renminbi Net-Open Position Limits

On 22 May, the Hong Kong Monetary Authority (HKMA) removed the 20% renminbi net-open position limit for authorized institutions. The affected institutions may now set their own position limit so long as the HKMA is informed and endorses the proposed limit.

Renminbi Liquidity Facility Opened

On 15 June, the HKMA established a facility through which authorized institutions can obtain renminbi funding, provided sufficient eligible collateral is available. The renminbi funding has a tenor of 1 week; eligible collateral includes Exchange Fund Bills and Notes (EFBNs), Hong Kong Special Administrative Region (HKSAR) bonds, and CNH-denominated bonds issued by the PRC.[6]

HKMA Launches Microfinance Scheme

On 29 June, the Hong Kong Mortgage Corporation, in cooperation with six banks and five non-governmental organizations (NGOs), launched the Microfinance Scheme to provide microfinance loans of up to HKD300,000 with a maximum tenor of 5 years. The target borrowers for the program are business starters; self-employed persons; and those wishing to undergo training, upgrade their skills, or take certification programs.

Indonesia

BI Issues FCY Term Deposit

In June, Bank Indonesia (BI) began offering a term deposit instrument for foreign currency (FCY). The new instrument involves the placement of FCY by banks with BI. According to the central bank, the term deposit will be managed through various foreign exchange (FX) transactions to increase the FX supply in the market and enhance monetary policy operations through FX swap operations. The FCY term deposit facilities will carry maturities of 7, 14, and 30 days, and will be auctioned every Wednesday, or on other days as specified by BI. The central bank held its first auction on 13 June, consisting of 7- and 14-day term deposits. The auction was oversubscribed as bids reached US$1.6 billion compared with a target of US$700 million.

PBOC and BI Interbank Bond Market Agreement

On 21 June, the PBOC and BI signed an Agency Agreement that will allow BI to invest in the interbank bond market of the PRC. The agreement reflects close collaboration between the PBOC and BI, and represents cooperation as a follow-up to their bilateral swap agreement. According to BI, access to the PRC bond market will facilitate

[6] CNH bonds are renminbi-denominated bonds issued in Hong Kong, China.

efforts to diversify its FX reserves. As of end-June, Indonesia's foreign exchange reserves totaled US$106.5 billion.

BI Announces New Regulations on Bank Ownership

In July, BI announced new regulations limiting investor ownership of Indonesians banks. Under the new rules that became effective 13 July, the new acquisition of a domestic commercial bank by a financial institution is limited to a 40% ownership stake, a non-financial institution to 30%, and families or individuals to 20%. State-owned banks and banks undergoing a recovery are exempt from the new rules. Also, exemptions can be granted for new acquisitions of listed banks exhibiting financial strength and possessing a Tier 1 capital ratio of more than 6%.

BI and the Indonesian Government Announce Measures to Address Increasing Current Account Deficit

In August, BI and the government held a coordination meeting to discuss measures to help the economy cope with a rising current account deficit. New measures announced on the part of BI include the following: (i) BI will allow investors to hedge their FX transactions with financial instruments carrying a minimum tenor of 1 week from a minimum of 3 months previously, effective 14 August; (ii) BI raised the floor of its deposit facility rate by 25 bps to 4.0% from 3.75%; the upper limit remains at 6.75%; (iii) BI also plans to tighten credit growth by strengthening the implementation of Loan-to-Value (LTV) limit, including a plan to ban the use of unsecured personal loans for credit advances. On the government side, a number of policies will be pursued to strengthen the current account to boost exports, manage imports, and improve the investment climate through fiscal instruments. In particular, anticipatory measures have been undertaken by the government with respect to taxation and custom duties.

Republic of Korea

Regulation on Corporate Bond Underwriting Amended

According to the Financial Supervisory Service (FSS), the regulation on underwriting corporate bonds was amended in April to require lead arrangers to conduct due diligence on corporate bond issuers and carry out demand forecasting in order to determine investors' level of demand and desired pricing for the bond.

MOSF Reports Economic Policy for 2H12

The Ministry of Strategy and Finance (MOSF) reported in June that the economic policies of the Republic of Korea in the second half of the year would focus on minimizing the adverse effects of the global economic crisis on the domestic economy, conducting economic reforms, and supporting the working class. MOSF mentioned seven important tasks for the government to pursue, including (i) dealing with global financial turmoil effectively, (ii) continuing with fiscal stimulus by raising budgetary spending and providing supplementary budgets, (iii) establishing a facility investment fund to support such investment, (iv) keeping consumer price inflation at or near 2.0%, (v) generating 400,000 jobs within the year, (vi) promoting microfinance programs and housing support programs, and (vii) nurturing certain sectors as future growth engines.

FSC Forms Task Force for Legislation of Covered Bond Act

In July, the Financial Services Commission (FSC) formed a task force that will help legislate the Covered Bond Act and thereby encourage banks to issue covered bonds. The FSC has reported that with the legislation of the Covered Bond Act, issuance of covered bonds will help banks lower their funding costs. The FSC expects that the draft bill will be submitted to the National Assembly for approval in November.

Malaysia

BNM Announces Renminbi Settlement Services

Bank Negara Malaysia (BNM) announced that Renminbi Settlement Services (RSS) would be included in its Real-Time Electronic Transfer of Funds and Settlement System (RENTAS), effective 21 March. Bank of China (Malaysia) Bhd. has been appointed as the onshore settlement institution for the RSS, which is expected to provide greater efficiency and competitiveness in trade settlement, facilitate bilateral trade between Malaysia and the PRC, and provide a natural hedge against the fluctuations and volatility of other currencies to eliminate settlement risk for renminbi transactions.

BNM, Euroclear, and HKMA Unveil Pilot Program for Cross-Border Bond Transactions

BNM, Euroclear Bank, and the HKMA announced the launch of a pilot platform in March. The platform, which became operational on 30 March, allows investors in Hong Kong, China and Malaysia to buy and hold foreign debt securities, and settle cross-border transactions on a delivery-versus-payment basis. According to BNM and HKMA's joint press release, the platform is intended to facilitate the harmonization of market practices and standardization of the issuance and settlement of debt securities in order to deepen Asian bond market liquidity, attract investment, and increase operational efficiency. The pilot platform will optimize existing system links between HKMA's Central Moneymarkets Unit (CMU), BNM's RENTAS, and Euroclear, as well as strengthen the connections between local central securities depositories and FCY real-time gross settlement systems. It will also contain a comprehensive Asian debt securities database maintained by Euroclear. The new infrastructure is expected to strengthen cross-border issuance of local bonds in Hong Kong, China and Malaysia, and the rollout of the platform will provide investors and market intermediaries with efficient and cost effective cross-border access to the Hong Kong, China and Malaysian bond markets.

Philippines

BSP Adopts Stricter Compliance Rules for Banks

In May, Bangko Sentral ng Pilipinas (BSP) adopted global practices for good corporate governance based on the Basel Committee on Banking Supervision's Principles for Enhancing Corporate Governance. These guidelines emphasize the need for the Board of Directors of banks to enhance their ability to exercise objective judgment and ensure a system of checks and balances.

The guidelines also covered the appointment and reporting line of a Chief Risk Officer. The performance ratings of the Chief Risk Officer should be confirmed by the Board of Directors and any replacement for this position should be reported to BSP.

The approved guidelines are the first of a three-part analysis of corporate governance, which will be followed by further reports governing internal controls and risk management. The three-part governance package is expected to be completed this year.

BSP Defers Implementation of PFRS 9 Financial Instruments to 1 January 2015

In July, BSP deferred the mandatory effectivity date of Philippine Financial Reporting Standards (PFRS) 9 Financial Instruments to 1 January 2015 from 1 January 2013. BSP said the deferment is in line with the issuance by the International Accounting Standards Board (IASB) of further amendments to International Financial Reporting Standards (IFRS) 9, as well as its local adoption by the Financial Reporting Standards Council in December 2011. IFRS 9 Financial Instruments is the first phase of a three-phased improvement project by the IASB to replace IAS 39 Financial Instruments: Recognition and Measurement. Phases 2 and 3 of the project are ongoing and deal with impairment and hedge accounting.

BSP Cuts SDA Rates and Tightens Rules

BSP cut its Special Deposit Account (SDA) rates by 1/32 of a percentage point effective 13 July. SDAs are fixed-term deposits made by banks and trust entities with the BSP. After the BSP lowered its SDA rate and cut its policy rates last month, the 7-day SDA rate had been reduced to 3.78125% from 4.0625%, the 14-day SDA rate to 3.84375% from 4.125%, and the 32-day SDA rate to 3.90625% from 4.1875%. Based on data from BSP, SDA deposits stood at PHP1.64 trillion as of 22 June. BSP also tightened the rules on the use of the SDA by requiring banks and trust entities to certify that funds invested in the facility did not come from foreign investors or entities. This rule was issued to curb currency speculation.

Singapore

MAS Revises Requirements Governing Marketing and Sale of Listed and Unlisted Investment Products

In May, the Monetary Authority of Singapore (MAS) announced that effective 1 October the prescribed list of Excluded Investment Products (EIPs) would be revised to include EIP-equivalent investment products listed on foreign exchanges, certain Collective Investment Schemes (CIS), and sub-funds of investment-linked life insurance policies. Currently, all CIS are classified as Special Investment Products (SIPs). By October, MAS will classify a CIS as an EIP if its investment mandate (i) permits investments only in EIPs and (ii) prohibits it from engaging in securities lending or repurchase transactions.

SGX Ready to Trade Renminbi-Denominated Securities

In July, Singapore Exchange (SGX) announced that it was ready to list, quote, trade, clear, and settle renminbi-denominated securities, which will complement the offshore renminbi bonds listed on the exchange. Also, SGX is the first exchange to offer the clearing of over-the-counter (OTC) foreign exchange forwards for renminbi. Issuers listing renminbi-denominated securities on SGX can also choose to offer dual-currency trading. This would allow investors the flexibility to trade the securities in either renminbi or Singapore dollars.

MAS Sets Up Contingent Liquidity Facility

MAS announced in its annual report released last July that it has entered into an agreement with the Singapore Deposit Insurance Corporation Limited (SDIC) through which MAS will offer a contingent liquidity facility of up to SGD20 billion in the event of a banking crisis. The agreement was signed in February; as of 31 March, no request had been made on the facility.

Thailand

BOT and MAS Sign Memorandum of Understanding on Cross-Border Collateral Arrangement

Bank of Thailand (BOT) announced in June that it had signed a memorandum of understanding with MAS to enter into a cross-border collateral arrangement to help maintain financial stability in Thailand and Singapore. Under this arrangement, eligible financial institutions operating in Thailand may obtain Thai baht liquidity from BOT by pledging Singaporean dollars or Singaporean central bank and government securities. Eligible financial institutions operating in Singapore may acquire Singaporean dollar liquidity from MAS by pledging Thai baht or Thai central bank and government securities.

Ministry of Finance Gives Approval to Five Foreign Entities to Issue LCY Bonds

The Ministry of Finance announced in June that it had given approval to five foreign entities to sell LCY bonds in Thailand, totaling THB33 billion, between 1 May 2012 and 31 January 2013. The foreign entities and the allowable amount of their respective bond issuances are (i) International Bank for Reconstruction and Development (THB5 billion), (ii) International Finance Corporation (THB5 billion), (iii) Swedish Export Credit Corporation (THB5 billion), (iv) Korea Gas Corporation (THB8 billion), and (v) Kookmin Bank (THB10 billion).

SEC Allows Sale of Unrated Bonds to Accredited Investors

The Securities and Exchange Commission (SEC) decided in June to allow the sale of the following financial products to accredited investors such as institutional investors and high-net worth investors: (i) unrated bonds and (ii) non-retail mutual funds that invest in non-investment grade debt securities or in unrated bonds.

Viet Nam

SBV Sets Maximum VND Short-Term Lending Rate of Credit Institutions

Effective 8 May, the State Bank of Viet Nam (SBV) set credit institutions' maximum VND short-term lending rate for borrowers at 300 bps above the ceiling VND deposit rate for term deposits longer than 1 month. In the same circular, the SBV required credit institutions to set a ceiling loan interest rate of 15% p.a. for four priority fields—agricultural and rural development, exports, supporting industries, and SMEs—once borrowers have met the credit extension conditions required by credit institutions.

SBV Cuts Vietnamese Dong Ceiling Deposit Rates

The SBV has cut VND ceiling deposit rates four times since the beginning of the year. Effective 11 June, the SBV set the ceiling VND deposit rate at 2% for demand and time deposits of less than 1 month, and 9% for time deposits of 1 month to 12 months. Local people's credit funds have been authorized to apply a ceiling VND deposit rate of 9.5% for time deposits of 1 month to 12 months. The ceiling VND deposit rate for time deposits of 12 months or longer can be set by local people's credit funds, based on capital supply and demand in the local market.

SBV Cuts Key Rates for the Fifth Time in 2012

Effective 1 July, the SBV cut key interest rates for the fifth time in 2012 on the back of easing inflation. The discount rate, refinancing interest rate, and overnight rate for inter-bank electronic payments were each cut by an additional 100 bps to 8%, 10%, and 11%, respectively.

The Threat of Financial Contagion is Real: Analyzing Shock and Volatility Spillovers from the Global Crisis*

Introduction

While a double-track global economic growth pattern persists—where growth in advanced economies slows and emerging markets continue their rapid expansion—recent data clearly show emerging East Asia has started to decelerate.[7] Weakening external demand has hit many export-oriented economies. Corporate profits are down, industrial growth is declining or even contracting in some economies, and stock market values are drifting downward. However, in the midst of this gradual deceleration, bond markets have been resilient—with issuance and the value of bonds outstanding up, and yields down.

Emerging East Asia's bond markets grew by 8.6% y-o-y in 2Q12 to US$5.9 trillion. More encouragingly, corporate bond growth continues to outpace that of government bonds—where markets are more developed. The global share of emerging Asia's local currency (LCY) bond markets continues to increase, and is now higher than in Latin America and the eurozone **(Table 11)**. This removes the possibility of currency mismatches, like those present at the onset of the 1997/98 Asian financial crisis. It also helps reduce the region's overreliance on banks for finance. In addition, it allows authorities to better use macroeconomic measures and monetary policy as effective countercyclical tools during global financial crises.

But is this a "new normal"? Is the trend cyclical or structural? While not easy to answer, one thing is clear—market uncertainty dominates. With the eurozone still unsettled, the United States' (US) "fiscal cliff" approaching, a potential food crisis looming, and growth in emerging markets—including the People's Republic of China (PRC)—slowing, risks and uncertainties mount. Indeed, financial market volatility has been high, both during the Lehman shock in 2008/09 and the current eurozone debt crisis.

The focus of this chapter is to examine the nature and intensity of the spillover effects of the global

Table 11: Currency Denomination in Bond Markets by Broad Area (%)

	2000		2005		2010		2011[a]	
	LCY	FCY	LCY	FCY	LCY	FCY	LCY	FCY
eurozone	90.0	10.0	89.9	10.1	89.8	10.2	90.3	90.7
Japan	98.5	1.5	91.1	0.9	99.4	0.6	99.4	0.6
Latin America	46.0	54.0	59.9	40.1	71.2	28.8	70.8	29.2
Emerging Asia[b]	88.4	11.6	91.2	8.8	94.2	5.8	94.3	5.7

FCY = foreign currency, LCY = local currency.
[a] as of end-September 2011.
[b] Emerging Asia includes India, Indonesia, the Republic of Korea, Malaysia, and the Philippines.
Source: P. Turner. 2012. Weathering Financial Crisis: Domestic Bond Markets in EMEs. *BIS Papers*. No. 63. Geneva: Bank for International Settlements.

* This chapter was authored by Iwan J. Azis, Head of the Office of Regional Economic Integration (OREI), and Sabyasachi Mitra, Principal Economist, OREI. Anthony Baluga and Roselle Dime provided excellent research assistance and data analysis for this chapter.

[7] Emerging East Asia comprises the People's Republic of China, Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand.

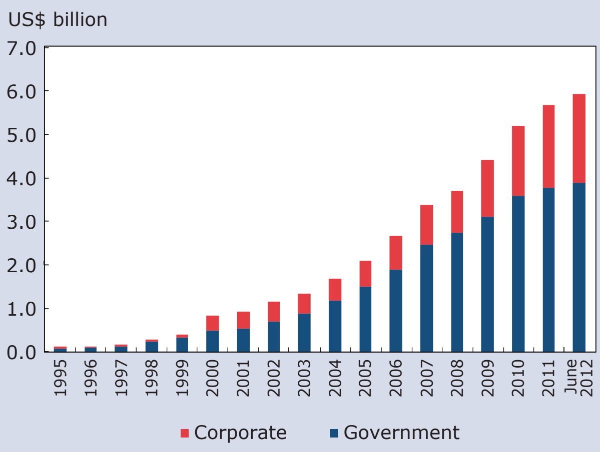
financial crisis on LCY debt markets in emerging East Asia. It is shown that, while debt markets are becoming more robust, volatility is on the rise. Deepening debt markets—especially corporate bonds—provide alternative financing with minimum risk of currency or maturity mismatches. Yet, in some countries the shock and volatility spillovers from the global financial crisis are significant, real, and need to be addressed before they create new vulnerabilities and exacerbate the ongoing economic slowdown.

The first section examines the impact of the crisis on LCY bond market growth. The second looks at the impact on returns, yields, and market volatility, with several policy measures highlighted. In both sections, the analysis is descriptive. A more detailed analysis using quantitative models is conducted in section three.

Crisis and the Growth of Bond Markets

LCY bond markets in emerging East Asia have grown at an annual average rate of 16.5% over the past 10 years. By 2011, they reached US$5.7 trillion **(Figure 14)** and accounted for 8.4% of the global market, up from 2.1% in 1996.[8] This is encouraging as LCY bond markets are a key source of funding for both governments and domestic companies. Local banks also turned to local bond markets to strengthen their capital base with subordinated debt.

Figure 14: Growth of the Emerging East Asian LCY Bond Market



LCY = local currency.
Note: Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
Source: *AsianBondsOnline*.

Deposit institutions have long been the primary source of capital in Asia, leaving the region's financial system skewed toward banks. With expanding bond markets and their growing "spare tire" role, however, the region is gradually making the transition to a more direct financing model, reducing overreliance on bank credit. Also interesting is that corporate bond issuance has outpaced new equity offerings, despite the fact that debt sales in local markets comprise only roughly one-third of total bank lending.

Markets expanded sharply during the first half of 2009 following a significant decline in the fourth quarter of 2008. Issuance in LCY bond markets by both governments and companies surged in the wake of the Lehman collapse in September 2008. This coincided with rising capital inflows as the region's financial markets were considered a safe haven by investors. Increased government issuance supported massive official stimulus programs to pump prime economies affected by the global financial crisis.

But more important has been the continued strong growth of corporate bonds. From the perspective of both issuers and investors, bonds are attractive. Issuers take advantage of coupon rates being below bank lending rates, while investors see the asset class as a safe heaven. This has occurred despite slowing economic growth and investment demand in general, and widening corporate bond spreads in the wake of the global financial crisis. The timing and factors behind this trend reflect a structural shift in local bond market development.

During the crisis, large companies tapped local bond markets to raise funds as banks turned cautious and became reluctant to lend as funding

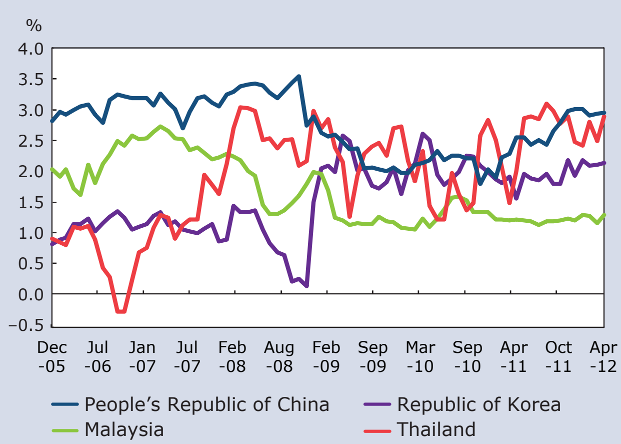
[8] Emerging Markets Bond Index (EMBI) Global gained 7.2% in 2011, making this segment the best performing asset class in the fixed-income market worldwide.

conditions in global markets tightened. While large companies substituted bank loans by raising funds through bond markets, local market borrowing costs also tilted the scale in favor of bond markets. Even though corporate bond spreads widened, they remained below prime lending rates in many markets **(Figure 15)**. This allowed many firms to continue raising funds for new projects, refinance maturing liabilities, and even pre-fund some borrowing requirements.

Rising capital flows reinforced the trend. Seeking shelter from the turmoil in industrial countries, investors piled into emerging market debt, pushing yields down further. Emerging East Asian markets are now enjoying developed market borrowing costs. They are evolving from return-enhancers to buffer-providers against volatile markets.[9]

The question is how much volatility can these markets handle before falling prey to a downward trend, as is happening with equity markets? Flows into local bond markets have increased partly because investors are seeking to both diversify their portfolios away from longstanding home biases, as well as take advantage of the strong emerging market economic fundamentals. But market reactions globally have increasingly been less correlated with fundamentals. More and more, market sentiment is influenced by factors outside macroeconomic fundamentals, making policy measures less effective.

Figure 15: Spread Between Prime Lending Rate and Corporate Bond Yield



Source: Bloomberg LP, EDAILY *BondWeb*, Bank Negara Malaysia, International Monetary Fund, and ThaiBMA.

Shocks emanating from the Lehman collapse and the eurozone crisis led yields across local Asian markets to spike, as market sentiment worsened and foreign funds withdrew. These "shock spillovers" also caused liquidity to contract and collateral asset values in many markets to fall. With uncertain conditions in industrial countries continuing—and yields at historical lows—capital flows again increased to emerging East Asia, where returns are higher. The resulting fluctuations ("volatility spillovers") complicate investor decisions and affect market sentiment. This can reduce the effectiveness of policy measures. If this situation is prolonged, the region's economies will be vulnerable to potential new shocks. For many export-oriented East Asian countries, where growth has already been depressed by falling external demand, this can pose a serious problem.

While the impact of shock and volatility spillovers to LCY bond markets may be evident from the volume side, what happens to yields?

Crisis and Yield Trends

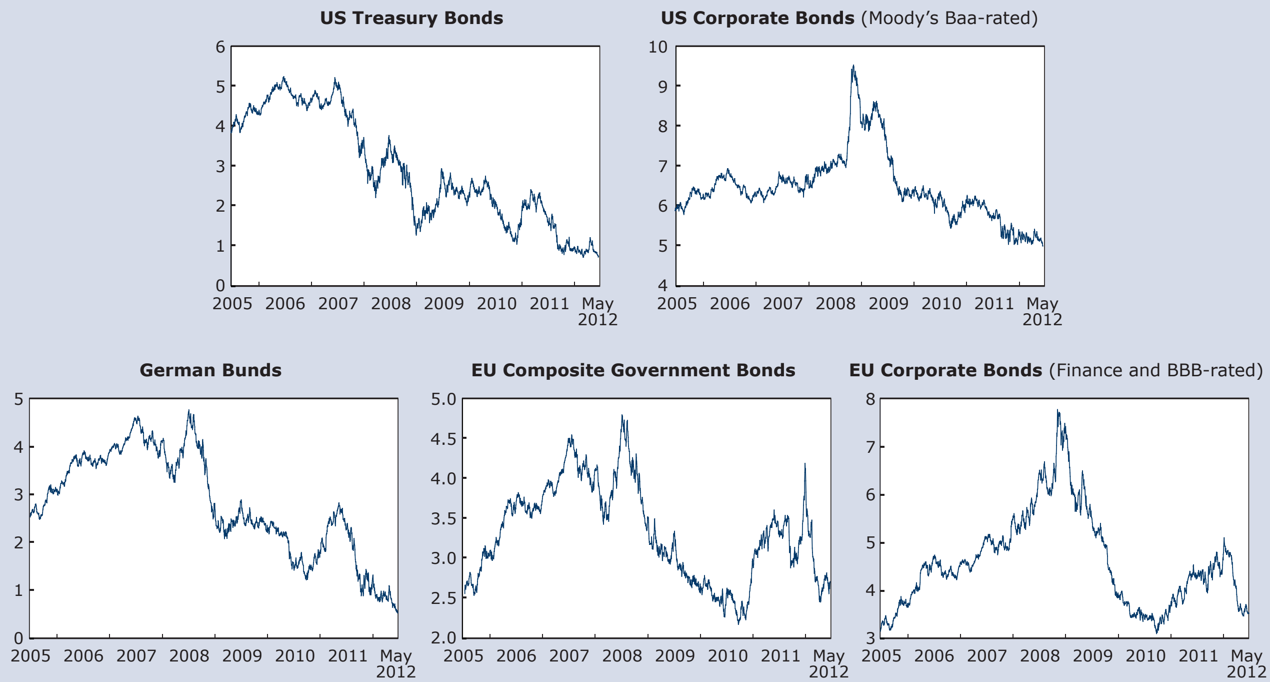
To describe yield dynamics during the global financial crisis, the trend of 5-year benchmark government bond yields of selected Asian markets is compared with the trend of US Treasuries, German Bunds, and US high-yield corporate bonds with similar maturities.[10]

It is clear that global market turmoil following the Lehman shock in September 2008 rattled both mature and emerging market economies **(Figure 16a)**. US and European Union (EU) high-yield corporate bonds saw substantial jumps in yields during the period. The subsequent recovery was then followed by another yield spike for EU high-yield corporate bonds when the Greek crisis reached a new peak in September 2011.

[9] An interesting implication of this is the rise of exotic higher-yield bond markets.

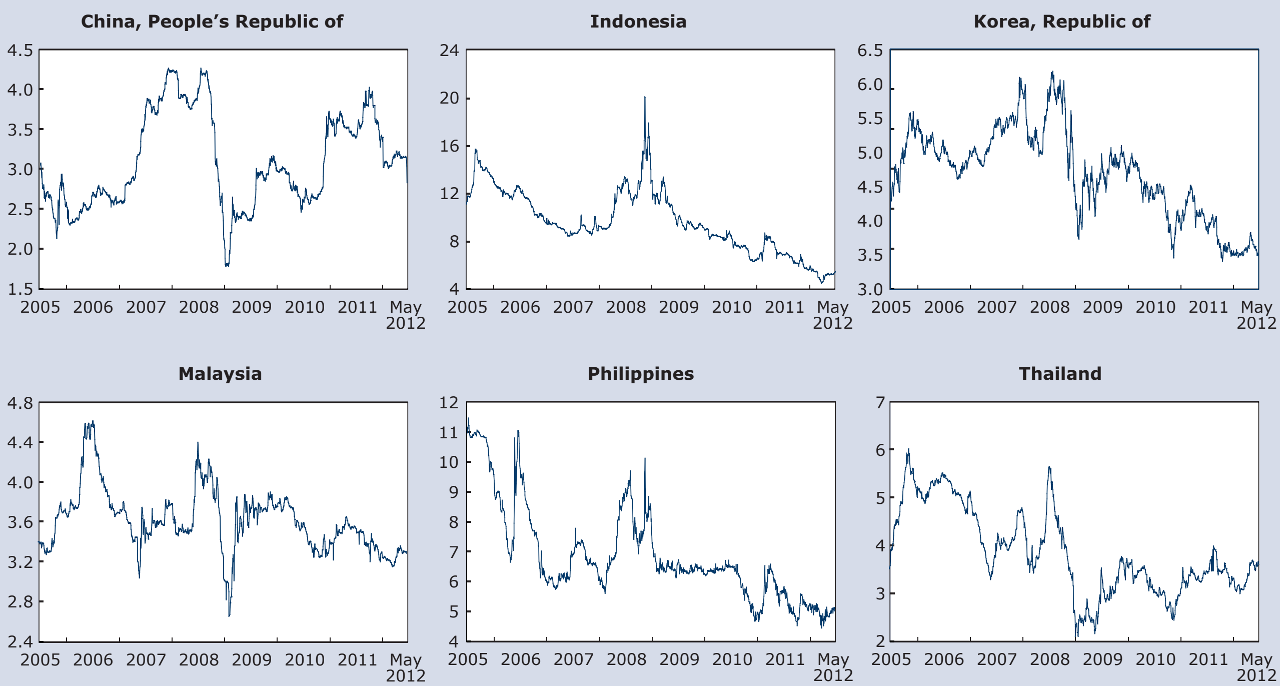
[10] With liquidity in local markets higher in the belly of the curve—usually around the 3 to 7 year bracket—5-year bonds for Asian debt are used.

Figure 16a: 5-Year Benchmark Government Bond Yields—EU, Germany, and the US



EU = European Union, US = United States.
Source: Bloomberg LP.

Figure 16b: 5-Year Benchmark Government Bond Yields of Selected Asian Countries



Source: Bloomberg LP.

Contagion from these two shocks spread to the bond markets of emerging East Asia. During the 2008/09 Lehman crisis, government bond yields in the Republic of Korea, Malaysia, and Thailand increased by as much as 2 percentage points, while those in Indonesia rose as much as 9 percentage points and the Philippines by 4 percentage points. **(Figure 16b)**. Indonesian and Philippine benchmarks somewhat followed yield trends of US high-yield corporates—with Indonesia's being slightly higher—suggesting a comparable asset categorization.

During the Lehman shock in September, Indonesia's rupiah bond market was the worst hit in the region—as the entire yield curve shifted upward—with rates ranging between 11.3% and 13.6% from the short- to the long-end of the curve. Fears of a sharp economic slowdown, together with rising domestic inflation and abrupt withdrawals of foreign funds, drove down bond prices and led to a sudden evaporation of market liquidity. As market conditions became very volatile during the last quarter of 2008, authorities cancelled all scheduled local debt auctions.

Yields on government bonds in the Republic of Korea shot up amid a liquidity shortage in local financial markets—exacerbated by an increase in risk aversion by foreign investors. Authorities responded aggressively by implementing stimulus packages; slashing base rates; and improving liquidity by reducing issuance of central bank bonds, utilizing currency swap agreements and reverse purchases, and boosting the Bank Recapitalization Fund to improve bank capital.

In the PRC, the government bond yield curve also shifted upward after the September 2008 shock, with rates at the short-end jumping more than 2 percentage points. However, a massive stimulus package, a slew of rate cuts, lowered reserve requirements, and falling consumer price inflation during February–March 2009 led the yield curve to shift back below its pre-September 2008 level.

Thus, authorities across the region generally employed an array of both conventional and unconventional policies to revive growth and stabilize capital markets—helping shield them from the shocks emerging from international financial markets during the 2008/09 crisis. Massive fiscal stimulus aimed at boosting domestic demand and investment, monetary easing and measures to facilitate short-term liquidity, and curbs on speculative activities in foreign exchange markets were some of the measures used to stabilize economies and secure investor confidence.

It is important to note that fiscal stimulus in most countries did not undermine fiscal sustainability—neither did stimulus finance raise major issues for policymakers. Liquidity remained abundant in most regional bond markets—where continued strong appetite for debt from local investors substituted for reduced foreign demand. Where domestic yield curves steepened sharply and long-term liquidity dried up, some judicious shortening of debt maturities helped raise the financing needed for stimulus policies while not adding substantially to rollover and interest rate risk. Government debt managers did deviate from their stated objectives, but continued their practice of publishing issuance calendars with large amounts of long-term tenors. The Philippines and Malaysia also eased mark-to-market rules on banks and financial institutions—major holders of government securities—following the relaxation of the rules by the International Accounting Standards Board (IASB) and other standard setters for illiquid assets.

The Philippine central bank responded to the crisis-related shock with regulatory forbearance. It allowed financial institutions to reclassify investments in debt and equity securities from "held for trading" or "available for sale" categories to "held to maturity" or "unquoted debt securities classified as loans."[11]

The combination of orthodox and unorthodox policies was credible in large part due to earlier policy frameworks—on regulation, debt issuance, and currency flexibility, among others—making

[11] D. Guinigundo. 2012. The impact of the global financial crisis on the Philippine financial system – an assessment. *BIS Paper.* No 54. Geneva: Bank for International Settlements.

balance sheets less vulnerable to market price shocks. Also, domestic markets remained confident that these exceptional measures were merely temporary.[12] To some degree, this lessened the upward pressure on longer-term yields as national authorities made clear that fiscal stimulus would be withdrawn as circumstances allowed. This also helped contain the yield fluctuations, or volatility spillovers, of the eight markets analyzed; only the PRC registers a significant coefficient.

The impact of the eurozone crisis, however, is a rather different story. As the debt crisis in Europe mounted, Asian benchmark yields approximated their pre-September 2008 levels. The severe stress and consequent recovery from the 2008/09 crisis—plus the steady growth of local bond markets since—ignited the debate over whether emerging East Asian markets are truly resilient.

The yield upticks in markets like Indonesia and the Republic of Korea have been attributed to the sudden outflow of foreign funds, reluctance of domestic institutional investors to step in to bridge the liquidity gap, and changes in market sentiment due to turmoil in global financial markets.[13] More importantly, however, volatility has returned as well. Apart from the volatility of cross-border capital flows and increased deleveraging by European financial institutions, central banks and debt management authorities largely view the impact of the eurozone debt crisis as being transmitted through heightened uncertainty and financial market volatility.[14]

This financial market contagion also hit the PRC, where the bond market was hurt by fears of a sharper-than-expected growth slowdown and rising market uncertainty. As a result, yields rose nearly 40 basis points at the short-end of the curve from end-July through end-August 2012.

Thus, the spillovers from the global financial crisis in terms of shock and volatility in emerging East Asia's bond yields are evident. The extent of these spillovers, however, remains unexplored. While one can visually compare the yield movements during the two crises, volatility clustering and leverage effects commonly observed in high-frequency financial data can distort the conclusion. Moreover, the significance of movements caused by spillovers from the crisis and those caused by the persistence of own-shocks is still unknown. Yet, policy measures to address the problems may be different. The distinction between "shock spillovers" and "volatility spillovers" also needs to be made.

Shock and Volatility Spillovers and Own-Market Persistence

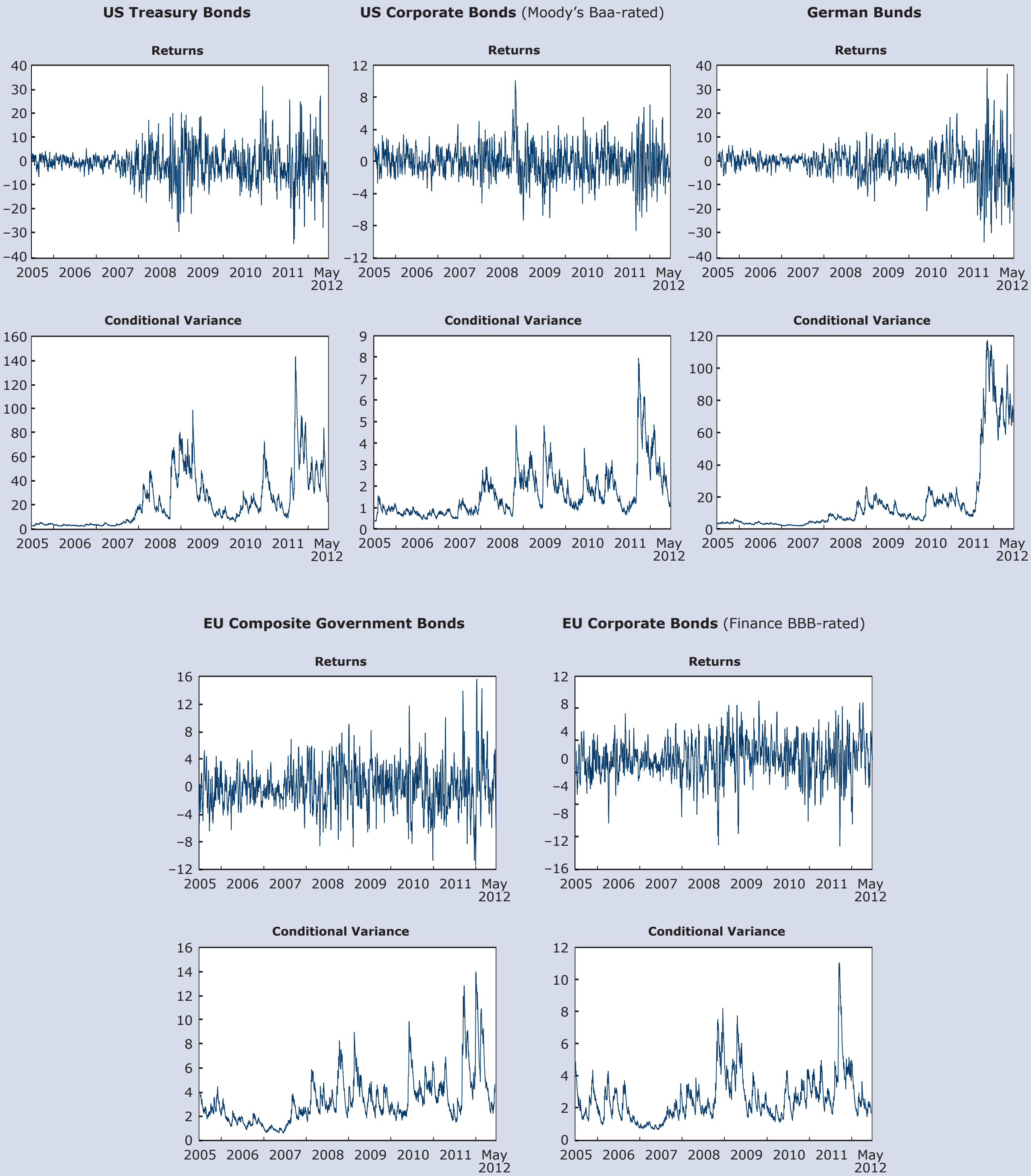
In examining the spillover effects of a shock in one market on another, GARCH models have been used extensively.[15] For our purpose, the first step is to use a univariate GARCH to extract conditional variances of the shock sources (yields of 5-year US Treasuries, German Bunds, US and EU high-yield corporate bonds) and of the impacted markets (yields of LCY government bonds in eight East Asian countries).

It is clear that yields on 5-year US Treasuries and German Bunds were affected by the Lehman shock in 2008 **(Figures 17a, 17b)**. The volatility spike for German Bunds was smaller compared with that for US Treasuries. Together with the observed downward trends, the heightened variability of yield returns for these two markets imply a "flight to safety and liquidity" by investors. The huge financial market stress drove down investor sentiment, making most, if not all, investors take refuge in less risky government securities in the US and Germany. In the meantime, the volatilities of US and EU high-yield corporate bond returns began to rise.

In the run-up to the eurozone sovereign debt crisis, volatility spiked again. The region's

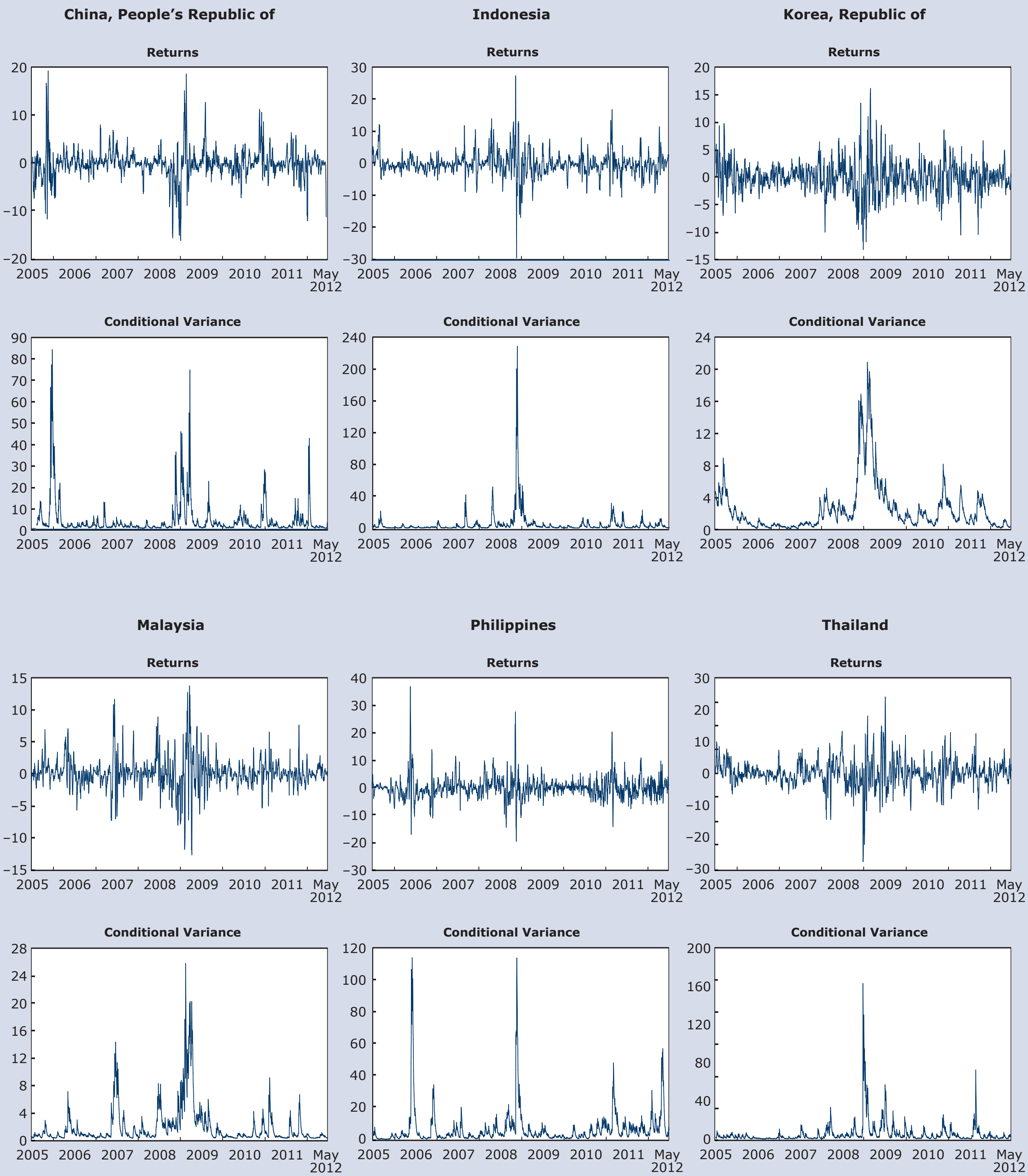
[12] P. Turner. 2012. Weathering Financial Crisis: Domestic Bond Markets in EMEs. *BIS Paper*. No. 63. Geneva: Bank for International Settlements.
[13] Yields of government bonds in Indonesia, Malaysia, and Thailand began to edge up in July and August 2012 on renewed uncertainty—despite the continued decline in US and German bond yields.
[14] Bank Negara Malaysia. 2012. *Annual Report 2011*.Kuala Lumpur.
[15] GARCH refers to generalized autoregressive conditional heteroscedasticity. Variances of the returns obtained from the mean equation are modeled as a GARCH process to generate the conditional variances (preferred than unconditional variances because of volatility clustering issue and leverage effect problem in high frequency data). More detailed explanations are in the Appendix to this chapter.

Figure 17a: Volatility Patterns of Government Bonds and Corporate—EU, Germany, and the US



EU = European Union, US = United States.
Source: ADB's Office of Regional Economic Integration calculations.

Figure 17b: Volatility Patterns of Government Bonds of Selected Asian Countries



Source: ADB's Office of Regional Economic Integration calculations.

fiscal woes only intensified financial market uncertainty, resulting in prolonged and wider yield return variability. The EU composite bond shows a different volatility pattern—the spikes observed during the eurozone debt crisis are more prominent for the composite than for German Bunds. Considering that the EU composite contains all rated sovereigns from the eurozone, the higher volatilities reflect the large risk premium investors attach to Portugal, Ireland, Italy, and Spain. These heightened fluctuations spiked substantially in September 2011.

How did these two markets affect Asia? Markets in selected countries showed marked spikes in volatility during the Lehman collapse and the eurozone sovereign debt crisis. Volatilities in yield returns may not have been as sharp or persistent as compared with those of the shock sources (US Treasuries, German Bunds, and US and EU corporate securities). Nonetheless, it is clear that there remains underlying yield volatility in Asian markets despite yields leveling off since the end of 2008.

But how do we know if the above trends are due to spillovers or own-market persistence? Are the spillovers significant in terms of shock and volatility? By running bivariate GARCH models using daily data on returns (subsequently converted to week-to-week) extracted from Bloomberg covering the period of June 2005 to May 2012, it becomes clear that—while Asian government bond returns and volatilities are more determined by the dynamics of own markets—contagion effects from the Lehman and eurozone crises remain significant in some countries. The shock spillovers from the Lehman collapse affected five Asian markets—the PRC, Thailand, Malaysia, the Republic of Korea, and the Philippines; the spillovers from the eurozone crisis affected three markets—the PRC, Thailand, and Indonesia **(Tables 12, 13)**. The strongest shock spillover during the eurozone crisis has been in the PRC. In fact, the region's shock spillover coefficients are generally higher during the 2008/09 crisis than during the eurozone crisis, except for the PRC.

Judging from the magnitude of coefficients, during the 2008/09 crisis the most significant shock spillovers came from the US high-yield corporate bond market. The most affected markets were those of the Republic of Korea, Malaysia, and the Philippines (coefficients averaging 0.3). Similarly, there were shock spillovers from EU high-yield corporates to the PRC and Thailand, and from EU composite bonds to the PRC. In terms of volatility spillovers, US corporate bond movements affected the PRC market significantly in the 2008/09 crisis, whereas during the eurozone crisis EU corporate (financial) bonds significantly affected markets in the Philippines (the coefficient is close to 2.0) and Thailand (0.4).

This highlights the uncertainty over the transmission of spillovers from the eurozone debt crisis and its impact on Asia's LCY bond markets. This is why Asian authorities should be aware and prepared for any possible disruptive spillovers.

Shock and volatility persistence of own markets is generally similar during the two crises. The own-shock persistence in Thailand and the Philippines was stronger in 2008/09 (Thailand has the highest coefficient) than in 2011. In Indonesia, the Republic of Korea, and Malaysia, the effect of the eurozone crisis was stronger (Indonesia has the highest coefficient). In terms of own-volatility persistence, during the two crises the results of all countries are significant, but EU corporate bonds appear to transmit significant volatility persistence only in the Republic of Korea, Malaysia, Indonesia, and the PRC.

These results clearly show that prior-period shocks and volatilities have manifested themselves on own-market performance.[16] The persistence of prior-period volatilities are more distinct than the prior-period shock—with values for own-shock coefficients averaging 0.2 while those for own-volatility average 0.8, suggesting that market perception about return fluctuations is more pronounced during bouts of financial market stress.

[16] Unlike in the preceding section, however, here the volatility clusters that tend to appear during a crisis are taken into account (reflected in the larger coefficient).

Table 12: Shock and Volatility Spillover (coefficients significant at 5% level)

Source Market or Country	Shock Spillover: Lehman Collapse — Asian Market	Coefficient	Shock Spillover: EU Debt Crisis — Asian Market	Coefficient	Volatility Spillover: Lehman Collapse — Asian Market	Coefficient	Volatility Spillover: EU Debt Crisis — Asian Market	Coefficient
US Treasury Bonds	Thailand	0.0423						
	PRC	0.0210						
	Malaysia	0.0114						
US High-Yield Corporate Bonds	Malaysia	0.4867			PRC	0.8546		
	KOR	0.3875						
	Philippines	0.2021						
German Bunds			PRC	0.0068				
			Thailand	0.0019				
			Indonesia	0.0014				
EU Composite Government Bonds			PRC	0.1081				
EU High-Yield Corporate Bonds			PRC	0.0956			Philippines	1.9797
			Thailand	0.0426			Thailand	0.3600

EU = European Union, KOR = Republic of Korea, PRC = People's Republic of China, US = United States.
Source: ADB's Office of Regional Economic Integration.

Table 13: Shock and Volatility Persistence (coefficients significant at 5% level)

Source Market or Country	Own-Shock Persistence				Own-Volatility Persistence			
	Lehman Collapse		EU Debt Crisis		Lehman Collapse		EU Debt Crisis	
	Asian Market	Coefficient	Asian Market	Coefficient	Asian Market	Coefficient	Asian Market	Coefficient
US Treasury Bonds	Indonesia	0.1957			Malaysia	0.8629		
	Thailand	0.1346			KOR	0.8562		
	KOR	0.0832			Philippines	0.8101		
	PRC	0.0729			Indonesia	0.8033		
	Philippines	0.0687			PRC	0.8007		
	Malaysia	0.0451			Thailand	0.7332		
US High-Yield Corporate Bonds	Thailand	0.3969			Indonesia	0.8464		
	PRC	0.1352			Philippines	0.8207		
	Indonesia	0.1343			KOR	0.7942		
	Philippines	0.1198			Thailand	0.6674		
	Malaysia	0.0580			Malaysia	0.6556		
	KOR	0.0480			PRC	0.5574		
German Bunds			Indonesia	0.2977			Philippines	0.9149
			Malaysia	0.2036			KOR	0.8704
			PRC	0.1058			Malaysia	0.7382
			Thailand	0.0989			Indonesia	0.7098
			Philippines	0.0818			PRC	0.6917
			KOR	0.0595			Thailand	0.6368
EU Composite Government Bonds			Indonesia	0.1790			KOR	0.8740
			Malaysia	0.1402			Indonesia	0.8093
			Philippines	0.1149			Philippines	0.7361
			KOR	0.0763			Malaysia	0.6953
			Thailand	0.0671			PRC	0.6947
							Thailand	0.6538
EU High-Yield Corporate Bonds			PRC	0.2155			KOR	0.8649
			Indonesia	0.2010			Malaysia	0.7918
			Malaysia	0.1535			Indonesia	0.7606
			Philippines	0.0653			PRC	0.6928
			KOR	0.0469				

EU = European Union, KOR = Republic of Korea, PRC = People's Republic of China, US = United States.
Source: ADB's Office of Regional Economic Integration.

Conclusion

LCY bond markets in emerging East Asia have come a long way since the 1997/98 Asian crisis. During the recent global financial crisis, these markets emerged as a key source of funding for government stimulus policies and domestic companies. Yet, the Lehman shock in 2008 and the ongoing eurozone debt crisis have tested the resilience of these markets, and the threat of financial contagion is real. A closer analysis shows that shock and volatility spillovers from both crises to Asian markets are quite significant.

While there are several direct and indirect implications of these spillovers, three issues stand out. First, persistence of volatility could reduce the attractiveness of this new asset class—as it directly impacts investor perception of the collateral value of LCY bonds. Second, any significant shock spillovers and spike in volatility leads to volatile capital outflows from local markets—with a direct impact on liquidity. The liquidity gap from the withdrawal of foreign funds is not immediately filled by domestic investors. Lastly, the spillovers and persistence of volatility could raise borrowing costs and lead the private sector to postpone using local markets for funding. All of these conditions can generate greater vulnerabilities.

From this perspective, even though the economies of emerging East Asia are doing relatively better than in other parts of the world, policymakers cannot be complacent. As far as challenges in the bond market are concerned, they need to take steps to improve liquidity by developing a stronger domestic investor base to make local markets more resilient and better able to support productive activities in the real sector. Yet, even with the right policies, volatile capital flows may not be preventable, especially when factors beyond domestic controls dominate. When this happens, the resulting vulnerabilities cannot be dealt with by relying on domestic safety nets alone; support from regional financial safety nets is needed as well. This is where regional cooperation needs to be strengthened.

Appendix

Volatility patterns of bond yield returns across different periods are first extracted by using AR(1) - GARCH (1, 1) process:

$$y_t = \alpha_0 + \alpha_1 y_{t-1} + \varepsilon_t$$

where y_t is the bond yield return. Variances obtained from the mean equation are then modeled as a GARCH process to generate the conditional variances. The GARCH equation is represented by

$$\sigma_t^2 = \alpha_0 + \alpha_1 \varepsilon_{t-1}^2 + \beta_1 \sigma_{t-1}^2,$$

where σ_t^2 is the conditional variance of the time-series, and ε_t^2 are squared residuals. The square of past residuals (ε_{t-1}^2) refers to the AR term, and the lagged variances (σ_{t-1}^2) refer to the GARCH term.

To estimate the spillovers of shock sources on impacted markets, bivariate GARCH models are estimated. For the impact of the Lehman shock, the US Treasury market and US corporate bond market are used as the two main sources. For the eurozone debt crisis, perturbations in German Bunds, the EU Composite Bond Yield Index, and European corporate debt (mainly financial sector) are used to examine their fallout on emerging East Asia's debt markets. Three time periods are defined: (i) the pre-crisis from July 2005 to August 2008, (ii) the Lehman shock from September 2008 to March 2009, and (iii) the new peak of the crisis in Greece and the eurozone debt crisis from September 2011 to May 2012.

A vector autoregressive (VAR) process for week-on-week bond returns is initially estimated, given the serial correlation found in the returns time series. Results of the Schwarz information criterion are then used to determine the optimal lag-length for the VAR estimation. The conditional mean equation is represented as

$$R_t = \alpha + \sum_{k=1}^{P} \Phi_p R_{t-k} + \varepsilon_t$$

where R_t is an $Nx1$ vector of week-on-week returns for each of the benchmark local currency (LCY) bond yields, Φ_p is a matrix of parameters, and $(\varepsilon_t | \mathrm{I}_{t-1}) \sim (0, H_t)$ is an $Nx1$ vector of random errors or innovations for each LCY bond market at time t given past information I_{t-1} (Karolyi, 1995).

The diagonal elements of the matrix Φ_p measure own market-lagged impacts; while the off-diagonals capture the effect of lagged return in one market on the current movement in the specific market being observed (cross-mean spillovers).

The resulting residual vectors are modeled as multivariate GARCH, where the NxN conditional variance-covariance matrix H_t is estimated using the unrestricted version of the Baba-Engle-Kraft-Kroner (BEKK) model defined in Engle and Kroner (1995). The BEKK model has the attractive property that the conditional variance-covariance matrix is positive definite by construction. The model has the form

$$H_t = CC' + \sum_{j=1}^{q} \sum_{k=1}^{K} A'_{kj} \left(\varepsilon_{t-j} \varepsilon'_{t-j}\right) A_{kj} + \sum_{j=1}^{p} \sum_{k=1}^{K} B'_{kj} H_{t-j} B_{kj}$$

where A_{kj}, B_{kj}, and C are NxN parameter matrixes, and is lower triangular. The decomposition of the constant term into a product of two triangular matrixes is to ensure positive definiteness of H_t. The BEKK model is covariance stationary if and only if the eigenvalues of $\sum_{j=1}^{q} \sum_{k=1}^{K} A_{kj} \otimes A_{kj} + \sum_{j=1}^{p} \sum_{k=1}^{K} B_{kj} \otimes B_{kj}$, where $\otimes$ denotes the Kronecker product of two matrixes are less than one in modulus. The summation limit determines the generality of the process. Whenever $K > 1$, an identification problem arises because there are several parameterizations that yield the same representation of the model. Engle and Kroner (1995) give conditions for eliminating redundant, observationally equivalent representations.

With this specification, the conditional variances and covariances depend on the lagged values of all conditional variances and covariances across bond market returns, as well as the lagged squared errors and cross-products of error terms (Brooks 2008). In this specification, C is a matrix of c_{lm} constants, A_{kj} is a parameter matrix of a_{lm} elements, indicating the extent of market shock spillovers, and B_{kj} is a parameter matrix of b_{lm} elements, capturing the market volatility spillover between markets l and m.

Estimation of a BEKK model—via maximum likelihood (ML)—involves somewhat heavy computations due to several matrix inversions. The number of parameters, $(p+q)KN^2 + N(N+1)/2$, in the full BEKK model remains quite large. Obtaining convergence may therefore be difficult because log-likelihood is not linear in parameters. There is the advantage, however, that the structure automatically ensures positive definiteness of H_t, so this does not need to be imposed separately. Partly because numerical difficulties are so common in the estimation of BEKK models, it is typically assumed $p = q = K = 1$ in applications.[17]

Consider the bivariate first order $(K = 1)$ BEKK model

$$H_t = CC' + A'\varepsilon_{t-1}\varepsilon'_{t-1}A + B'H_{t-1}B$$

Expanding this,

$$\begin{bmatrix} h_{11,t} & h_{12,t} \\ h_{21,t} & h_{22,t} \end{bmatrix} = \begin{bmatrix} c_{11} & c_{12} \\ c_{21} & c_{22} \end{bmatrix} \begin{bmatrix} c_{11} & c_{21} \\ c_{12} & c_{22} \end{bmatrix}$$
$$+ \begin{bmatrix} a_{11} & a_{21} \\ a_{12} & a_{22} \end{bmatrix} \begin{bmatrix} \varepsilon_{1,t-1} \\ \varepsilon_{2,t-1} \end{bmatrix} \begin{bmatrix} \varepsilon_{1,t-1} & \varepsilon_{2,t-1} \end{bmatrix} \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$$
$$+ \begin{bmatrix} b_{11} & b_{21} \\ b_{12} & b_{22} \end{bmatrix} \begin{bmatrix} h_{11,t-1} & h_{12,t-1} \\ h_{21,t-1} & h_{22,t-1} \end{bmatrix} \begin{bmatrix} b_{11} & b_{12} \\ b_{21} & b_{22} \end{bmatrix}$$

where $h_{12,t} = h_{21,t} = h_{cov,t}$.

The representations of main diagonal elements of the conditional variance-covariance matrix H_t:

$$h_{11,t} = (c_{11}^2 + c_{12}^2)$$
$$+ \left(a_{11}^2\varepsilon_{1,t-1}^2 + 2a_{11}a_{21}\varepsilon_{1,t-1}\varepsilon_{2,t-1} + a_{21}^2\varepsilon_{2,t-1}^2\right)$$
$$+ \left(b_{11}^2 h_{11,t-1} + 2b_{11}b_{21}h_{cov,t-1} + b_{21}^2 h_{22,t-1}\right)$$

$$h_{22,t} = (c_{21}^2 + c_{22}^2)$$
$$+ \left(a_{12}^2\varepsilon_{1,t-1}^2 + 2a_{12}a_{22}\varepsilon_{1,t-1}\varepsilon_{2,t-1} + a_{22}^2\varepsilon_{2,t-1}^2\right)$$
$$+ \left(b_{12}^2 h_{11,t-1} + 2b_{12}b_{22}h_{cov,t-1} + b_{22}^2 h_{22,t-1}\right)$$

where $h_{11,t}$ and $h_{22,t}$ are the conditional variance equations of markets $l = 1$ and $m = 2$.

The parameters of interest in this study are the off-diagonal elements of A and B corresponding to the a_{lm} $(where\ l \neq m)$—indicating the extent of market shock spillovers—and b_{lm} $(where\ l \neq m)$—capturing the volatility spillover between l and m.

[17] Most financial time series volatility clustering characteristics are aptly modeled by a GARCH(1,1) process ($p = q = 1$). This implies that conditional variances and covariances depend on one period lag values of all the conditional variances and covariances across bond market returns, as well as one period lag squared errors and cross-products of error terms. Setting $K = 1$ allows mathematical tractability of the model.

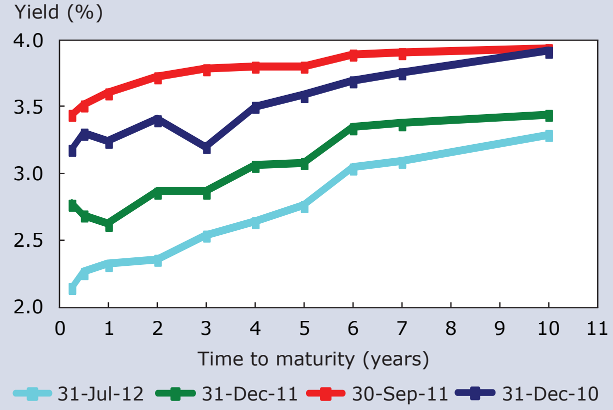
Market Summaries

People's Republic of China—Update

Yield Movements

The government bond yield curve in the People's Republic of China (PRC) continued to shift downward through the end of July 2012, particularly at the shorter-end, as inflation continued to decline and the economy slowed. Yields fell between 43 basis points (bps) and 62 bps for tenors of less than 1 year, and between 30 bps and 50 bps for tenors of 1 year to 5 years **(Figure 1)**. Yields fell within a range of 15 bps and 30 bps for tenors longer than 5 years.

Figure 1: People's Republic of China's Benchmark Yield Curve—LCY Government Bonds



LCY = local currency.
Source: Bloomberg LP.

The fall in yields was driven mostly by the continued decline in the PRC's inflation rate. Inflation fell to 3.4% year-on-year (y-o-y) in April from 3.6% in March and has continued to fall since then, decelerating to 3.0% in May, 2.2% in June, and 1.8% in July. The decline in the inflation rate has been driven primarily by easing food prices.

Gross domestic product (GDP) growth has slowed in the PRC as a result of continued weakness in developed economies. GDP growth fell to 8.1% y-o-y in 1Q12 from 8.9% in 4Q11, and slipped further to 7.6% in 2Q12. In response to the weak economic data, the PRC has engaged in a number of easing measures. Policy rates were cut for the first time in 3 years by 25 bps each in the first week of June. Rates were cut again by 25 bps and 31 bps for the 1-year deposit rate and 1-year lending rate, respectively, in the first week of July. In addition, the People's Bank of China (PBOC) expanded the range in which banks could vary their deposit and lending rates from the benchmark policy rates.

Reserve requirement ratios were cut twice in the first half of 2012, each time by 50 bps. Furthermore, the PBOC has not issued any central bank bills or bonds this year, thereby increasing the money supply by allowing existing central bank bills and bonds to mature.

As a result of the easing measures, particularly the reduction in policy rates, the yield curve had steepened by the end of July 2012, with rates at the shorter-end falling much more than those at the longer-end. The yield spread between the 2- and 10-year tenors widened to 93 bps at end-July from 58 bps at end-December 2011.

Other economic data showed signs of weakness as well. Industrial production, as measured by gross valued added, expanded 11.9% y-o-y in March before growth slowed in May, June, and July to 9.6%, 9.5%, and 9.2%, respectively. The manufacturing purchasing managers' index (PMI) also declined from April's 53.3 figure to 50.1 in July.

New loans have also seen declines. New loans for July were at CNY540.1 billion compared with CNY919.8 billion in June.

Table 1: Size and Composition of the LCY Bond Market in the People's Republic of China

	Amount (billion)								**Growth Rates** (%)						
	Mar-12		**Apr-12**		**May-12**		**Jun-12**		**Mar-12**		**Apr-12**	**May-12**	**Jun-12**		
	CNY	**US$**	**CNY**	**US$**	**CNY**	**US$**	**CNY**	**US$**	**y-o-y**	**q-o-q**	**m-o-m**	**m-o-m**	**y-o-y**	**q-o-q**	**m-o-m**
Total	21,725	3,449	21,631	3,445	21,724	3,411	22,042	3,469	8.2	1.7	(0.4)	0.4	6.9	1.5	1.5
Government	16,218	2,575	16,130	2,569	16,150	2,536	16,396	2,580	4.5	1.4	(0.5)	0.1	3.9	1.1	1.5
Treasury Bonds	7,420	1,178	7,424	1,182	7,397	1,162	7,500	1,180	11.3	0.5	0.1	(0.4)	8.0	1.1	1.4
Central Bank Bonds	1,928	306	1,751	279	1,659	260	1,644	259	(39.3)	(9.4)	(9.2)	(5.3)	(41.0)	(14.7)	(0.9)
Policy Bank Bonds	6,869	1,091	6,955	1,108	7,094	1,114	7,251	1,141	21.1	6.0	1.3	2.0	20.0	5.6	2.2
Corporate	5,502	874	5,501	876	5,574	875	5,646	889	20.6	2.7	(0.02)	1.3	16.5	2.6	1.3
Policy Bank Bonds															
China Development Bank	4,676	742	4,685	746	4,779	750	4,921	775	14.8	5.2	0.2	2.0	14.9	5.2	3.0
Export–Import Bank of China	902	143	937	149	952	149	930	146	48.5	8.2	3.9	1.6	36.0	3.1	(2.3)
Agricultural Devt. Bank of China	1,291	205	1,333	212	1,363	214	1,400	220	30.4	7.5	3.2	2.3	30.0	8.4	2.7

LCY = local currency, m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Treasury bonds include savings bonds and local government bonds.
3. Bloomberg LP end-of-period LCY–US$ rate is used.
4. Growth rates are calculated from LCY base and do not include currency effects.
Source: *ChinaBond* and Bloomberg LP.

Size and Composition

The amount of outstanding local currency (LCY) bonds in the PRC market reached CNY22 trillion (US$3.5 trillion) at end-June, representing a y-o-y increase of 6.9% and a quarter-on-quarter (q-o-q) rise of 1.5% **(Table 1)**.

LCY government bonds outstanding grew 3.9% y-o-y and 1.1% q-o-q in 2Q12, while corporate bonds rose 16.5% y-o-y and 2.6% q-o-q. Central bank bonds continued to constrain overall government bond growth, falling 41.0% y-o-y and 14.7% q-o-q as a result of the PBOC's cessation of new bond issuance in 2012. In contrast, treasury bonds grew 8.0% y-o-y and 1.1% q-o-q, and policy bank bonds grew 20.0% y-o-y and 5.6% q-o-q.

Corporate Bonds. Overall, corporate bonds outstanding grew 16.5% y-o-y in 2Q12. Growth was driven mainly by an increase in outstanding commercial bank bonds, local corporate bonds, and medium-term notes (MTNs). Commercial bank bonds grew 44.9% y-o-y in 2Q12, due largely to issuance of subordinated notes as banks sought to bolster their capital bases in advance of the PRC's implementation of Basel III.

Local corporate bonds grew 38.2% and MTNs expanded 31.3% y-o-y in 2Q12, while state-owned corporate bonds rose 13.1% **(Table 2)**. Commercial paper outstanding fell a dramatic 79.9% in 2Q12, on the back of a sharp decline in issuance in 1Q12 and 2Q12. Asset-backed securities continued to decline as well, falling 18.4% in 2Q12 due to an ongoing lack of issuance.

On a q-o-q basis, most categories of LCY corporate bonds outstanding grew in 2Q12, with the exception of commercial paper and asset- and mortgage-backed securities. Local corporate bonds grew 12.6%, MTNs grew 4.9%, and state-owned enterprise bonds grew 4.1%.

Issuance of corporate bonds was up overall in both 1Q12 and 2Q12, compared with 4Q11 levels **(Figure 2)**, due to the low interest rate environment

Table 2: Corporate Bonds Outstanding in Key Sectors

	Amount (CNY billion)						Growth Rates (%)					
							q-o-q					y-o-y
	1Q11	2Q11	3Q11	4Q11	1Q12	2Q12	2Q11	3Q11	4Q11	1Q12	2Q12	2Q12
Commercial Bank Bonds	625.0	758.8	755.2	924.3	1,027.6	1,099.8	21.4	(0.5)	22.4	11.2	7.0	44.9
State-Owned Corporate Bonds	879.6	877.1	876.4	894.4	953.0	991.9	(0.3)	(0.1)	2.1	6.6	4.1	13.1
Local Corporate Bonds	653.1	714.1	727.3	782.1	876.3	987.0	9.3	1.8	7.5	12.0	12.6	38.2
Commercial Paper	683.3	687.1	616.5	502.4	329.1	138.4	0.6	(10.3)	(18.5)	(34.5)	(58.0)	(79.9)
Asset- and Mortgage-Backed Securities	10.8	10.1	9.9	9.5	8.6	8.2	(6.1)	(2.3)	(3.5)	(9.6)	(4.3)	(18.4)
Medium-Term Notes	1,532.5	1,621.4	1,768.6	1,974.3	2,029.9	2,129.1	5.8	9.1	11.6	2.8	4.9	31.3

q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Source: *ChinaBond.*

stemming from low inflation. However, issuance declined in 1Q12 and 2Q12 for commercial paper, MTNs, and asset- and mortgage-backed securities.

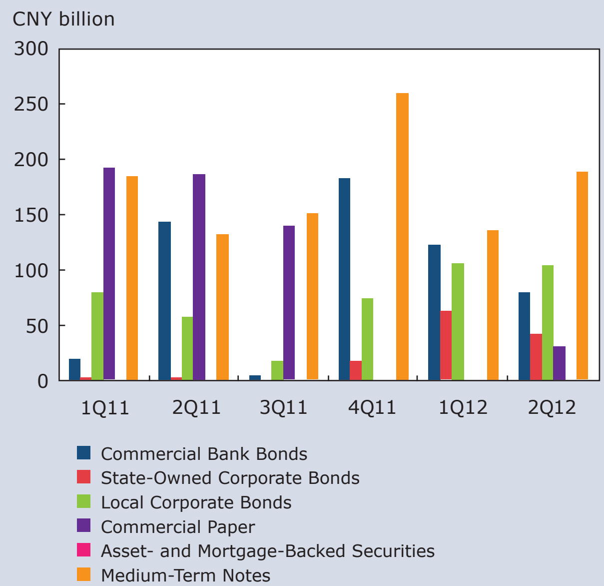
The lack of asset-backed securities stems from the PRC's decision to temporarily halt new issuance in 2008. However, a recently-expanded pilot program is currently underway. Commercial bank bond issuance was strong in 1Q12 and 2Q12, but lower than its peak levels in prior quarters, as banks sought to bolster their capital bases in preparation for the PRC's implementation of Basel III capital adequacy requirements.

Commercial paper issuance has been either weak or nonexistent since 4Q11, being negatively affected by the China Banking Regulatory Commission's (CBRC) decision to prevent banks from offering trust products that invest in commercial paper.

A relatively small number of issuers dominate the PRC's corporate bond market **(Table 3)**. At end-June, the top 30 corporate bond issuers accounted for CNY3.4 trillion, or about 60% of total corporate bonds outstanding. Of the top 30 corporate issuers' bonds outstanding, the 10 largest issuers accounted for CNY2.3 trillion, or 68% of the total.

State-owned companies (defined as majority-owned by the government) dominate the corporate bond market in the PRC. Among the top 30 corporate bond issuers, 23 were state-owned, with a total of CNY2.9 trillion worth of bonds outstanding at end-June.

Figure 2: Corporate Bond Issuance in Key Sectors, 1Q11–2Q12



Source: *ChinaBond.*

SME Bonds. Collective bonds outstanding reached CNY3.5 billion as of 30 June 2011, and have fallen since then. The PRC has been promoting the development of small and medium-sized enterprises (SMEs) and diversifying the funding sources available to them. Past efforts included the launch of SME collective bonds. The SME collective bonds were first launched in 2007 and regulated by the National Development and Reform Council (NDRC). Due to the substantial application requirements, growth has been slow

Table 3: Top 30 Issuers of LCY Corporate Bonds in the People's Republic of China (as of end-June 2012)

Issuers	Outstanding Amount		State-Owned	Privately-Owned	Listed Company	Type of Industry
	LCY Bonds (CNY billion)	LCY Bonds (US$ billion)				
1. Ministry of Railways	632.0	99.46	Yes	No	No	Transportation
2. State Grid Corporation of China	301.5	47.45	Yes	No	No	Public Utilities
3. China National Petroleum	290.0	45.64	Yes	No	No	Energy
4. Industrial and Commercial Bank of China	230.0	36.20	Yes	No	Yes	Banking
5. Bank of China	196.9	30.99	Yes	No	Yes	Banking
6. China Petroleum & Chemical	163.2	25.68	Yes	No	Yes	Energy
7. China Construction Bank	160.0	25.18	Yes	No	Yes	Banking
8. Central Huijin Investment	109.0	17.15	Yes	No	No	Diversified Financial
9. Agricultural Bank of China	100.0	15.74	Yes	No	Yes	Banking
10. China Guodian	83.1	13.08	Yes	No	No	Public Utilities
11. China Minsheng Bank	82.3	12.95	No	Yes	Yes	Banking
12. Bank of Communications	76.0	11.96	No	Yes	Yes	Banking
13. Industrial Bank	72.1	11.34	No	Yes	Yes	Banking
14. Petrochina	67.5	10.62	Yes	No	Yes	Energy
15. Shanghai Pudong Development Bank	67.2	10.58	No	Yes	Yes	Banking
16. China Three Gorges Project	60.5	9.52	Yes	No	No	Public Utilities
17. China Power Investment	57.2	9.00	Yes	No	No	Public Utilities
18. Citic Group	53.5	8.42	Yes	No	No	Diversified Financial
19. China United Network Communications	53.0	8.34	Yes	No	Yes	Telecommunications
20. China Everbright Bank	52.7	8.29	No	Yes	Yes	Banking
21. Shenhua Group	52.0	8.18	Yes	No	No	Energy
22. China Southern Power Grid	51.0	8.03	Yes	No	No	Public Utilities
23. China Merchants Bank	50.0	7.87	No	Yes	Yes	Banking
24. China Huaneng Group	49.2	7.74	Yes	No	No	Public Utilities
25. State-Owned Capital Operation and Management Center of Beijing	45.0	7.08	Yes	No	No	Diversified Financial
26. China Citic Bank	42.5	6.69	No	Yes	Yes	Banking
27. Shougang Group	42.0	6.61	Yes	No	No	Raw Materials
28. China Telecom	40.0	6.30	Yes	No	Yes	Telecommunications
29. Metallurgical Corporation of China	39.6	6.23	Yes	No	Yes	Capital Goods
30. Huaneng Power International	39.0	6.14	Yes	No	Yes	Public Utilities
Total Top 30 LCY Corporate Issuers	**3,358.0**	**528.48**				
Total LCY Corporate Bonds	**5,645.9**	**888.56**				
Top 30 as % of Total LCY Corporate Bonds	**59.5%**	**59.5%**				

LCY = local currency.
Source: Bloomberg LP and Wind.

and outstanding SME collective bonds as of 30 June 2012 were only CNY3 billion. In 2009, the PRC also issued rules for SME collective notes, regulated by the PBOC and NAFMII. This facility was designed to have a much simpler application process, much like MTNs. Due to the easier application process, growth of the SME collective notes has been more rapid than that of SME collective bonds, and as of 30 June 2012 SME collective notes outstanding amounted to CNY13.3 billion.

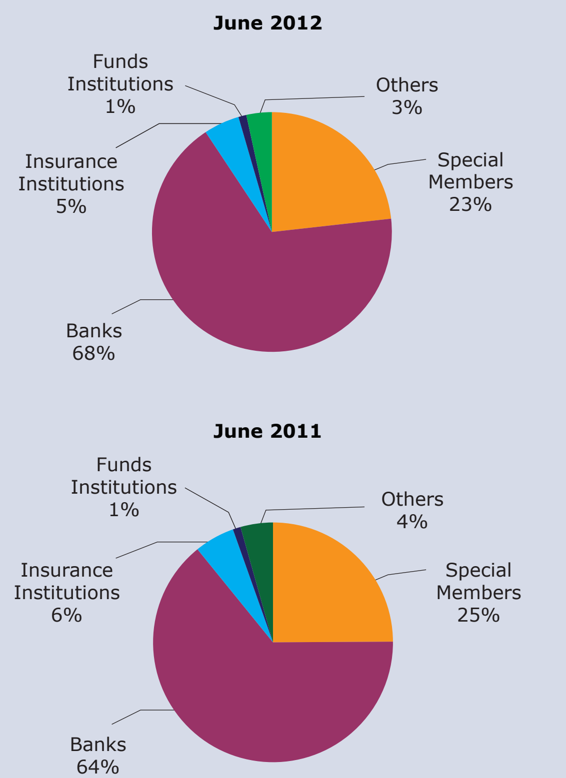
In May 2012, the PRC released a pilot program for the issuance of SME private placement bonds (See **Policy, Institutional, and Regulatory Developments** for more details). Unlike the SME collective notes and bonds, which are jointly issued by a group of SMEs, issuance for the SME private placement bonds are on an individual name basis and they typically carry higher yields. Since the launch of the program, there have been 33 issuances with a total cumulative amount of CNY3 billion.

Investor Profile

Treasury Bonds. Banks remained the largest category of investors in the PRC's treasury bond market, holding a slightly larger share of these bonds at end-June 2012 (68%) than at end-June 2011 (64%) **(Figure 3a)**. The shares held by special members fell to 23% from 25% during the same period. Special members comprise the PBOC, Ministry of Finance, policy banks, China Government Securities Depository Trust and Clearing Co., and China Securities Depository and Clearing Corporation.

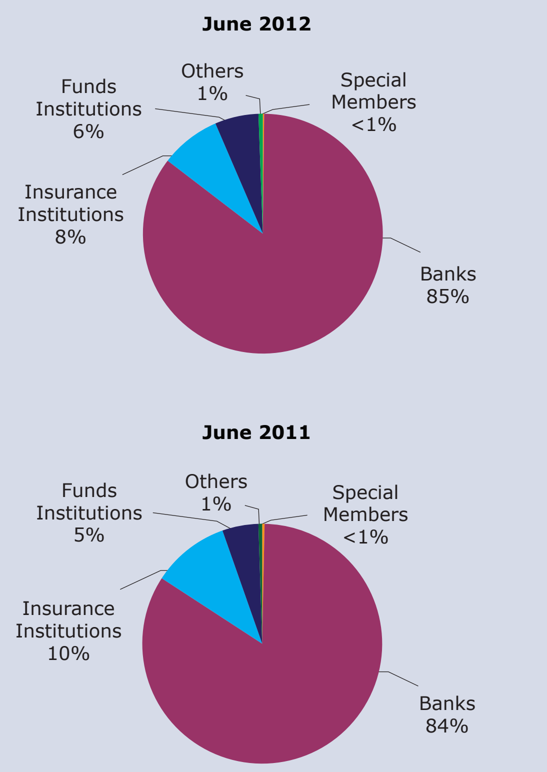
Banks are an even more significant holder of policy bank bonds **(Figure 3b)**. At end-June, banks

Figure 3a: LCY Treasury Bonds Investor Profile



LCY = local currency.
Source: *ChinaBond*.

Figure 3b: LCY Policy Bank Bonds Investor Profile



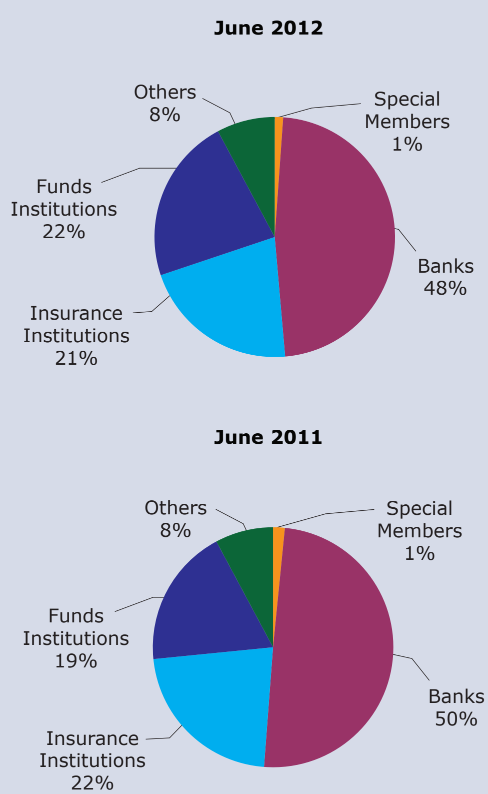
LCY = local currency.
Source: *ChinaBond*.

held 85% of outstanding policy bank bonds, up slightly from 84% at end-June 2011. Insurance institutions' holdings fell slightly to 8% at end-June from 10% a year earlier.

Corporate Bonds. Banks remained the largest holder of corporate bonds at end-June, albeit with a comparatively smaller share than bank holdings of treasury bonds and policy bank bonds. Banks' share of corporate bonds fell slightly to 48% at end-June from 50% at end-June 2011 **(Figure 4)**. The shares held by insurance and fund institutions at end-June were 21% and 22%, respectively, from 22% and 19% a year earlier.

Figure 5 presents the investor profile across different bond categories. Banks were the largest holder of treasury bonds and policy bank bonds at end-June, with a more than 80% share of outstanding policy bank bonds. Meanwhile, insurance institutions were the largest holder of commercial bank bonds.

Figure 4: LCY Corporate Bonds Investor Profile

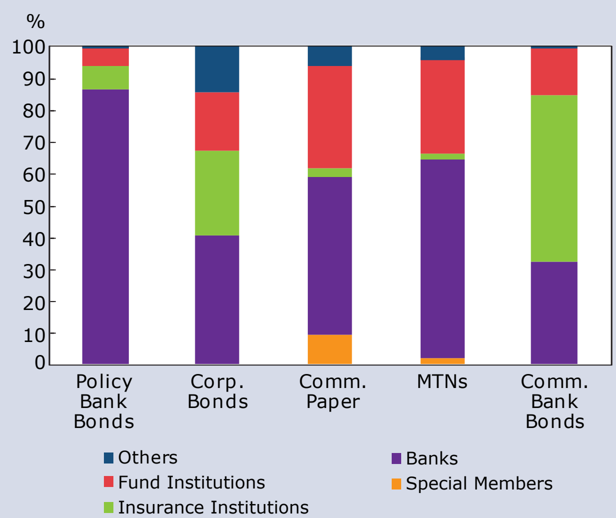


LCY = local currency.
Source: *ChinaBond*.

Liquidity

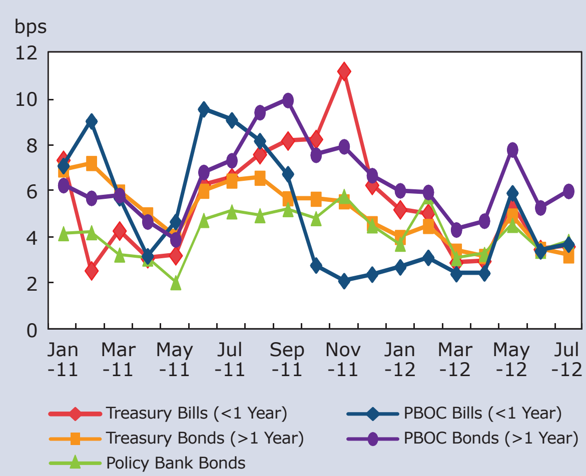
Liquidity for government bonds has showed a steady increase since the start of 2012 as evidenced by the decline in bid–ask spreads **(Figure 6)**.

Figure 5: Investor Profile across Bond Categories (as of end-June 2011)



bps = basis points, MTNs = medium-term notes.
Source: *ChinaBond*.

Figure 6: Bid–Ask Spreads by Market Makers, January 2011–July 2012



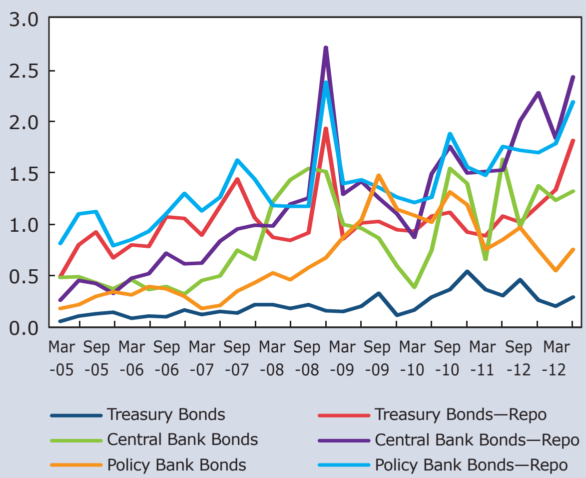
PBOC = People's Bank of China.
Source: *Wind*.

Demand for government bonds increased as the market expected the PBOC to continue easing as inflation declined over this period.

There was an uptick in bid–ask spreads, however, in May due to market concern that PBOC had yet to cut its policy rates. Bid–ask spreads then declined in June after PBOC cut its policy rates by 25 bps in the first week of June.

Figure 7 presents the turnover ratio for government bonds, including both spot trading as well as repo trading volume. As can be seen, the repo market is much more active, with volumes much larger than for spot trading.

Figure 7: Turnover Ratios for Government Bonds



Repo = repurchase.
Source: *ChinaBond*.

Interest Rate Swaps

The total notional amount traded in the interest rate swap (IRS) market rose 3.2% y-o-y and 39.0% q-o-q in 2Q12 to CNY682.1 billion, on a total of 5,173 transactions **(Table 4)**. The most popular benchmark is the 7-day repurchase (repo) rate, accounting for 51% of the notional amount traded, followed by the overnight SHIBOR at 34%. These two benchmarks were the most actively traded in 2Q12 because the primary participants in the PRC's onshore IRS market are commercial banks with large funding exposure in the form of repo transactions. Therefore, banks make extensive use of the repo rate as the base rate to hedge their funding.

Rating Changes

On 11 April, Fitch Ratings (Fitch) reaffirmed the PRC's foreign currency credit rating at A+ with a stable outlook **(Table 5)**. According to Fitch, the PRC's key rating strength is its strong on-balance sheet finances. Fitch also said that in 2011 the PRC had the second-strongest sovereign net foreign asset position in its rating group. The PRC's explicit sovereign debt also remains modest.

Table 4: Notional Values of the PRC's Interest Rate Swap Market in 2Q12

Interest Rate Swap Benchmarks	Notional Amount (CNY billion)	% of Total Notional Amount	Number of Transactions	Growth Rate (%)	
	2Q12			q-o-q	y-o-y
7-Day Repo Rate	347.6	51.0%	3,711	35.8%	(6.0%)
Overnight SHIBOR	233.5	34.2%	524	103.9%	42.6%
1-Week SHIBOR	0.1	0.0%	1	–	–
3-Month SHIBOR	75.5	11.1%	608	(2.3%)	(16.3%)
1-Year Term Deposit Rate	21.0	3.1%	221	(48.1%)	(40.6%)
6-Month Lending Rate	0.2	0.0%	17	1,260.0%	1,940.0%
1-Year Lending Rate	2.4	0.4%	75	10.9%	12,536.8%
3-Year Lending Rate	0.4	0.1%	9	410.5%	–
5-Year Lending Rate	0.7	0.1%	5	122.3%	(52.4%)
Above 5-Year Lending Rate	0.6	0.1%	2	–	–
Total	**682.1**	**100.0%**	**5,173**	**39.0%**	**3.2%**

– = not applicable, PRC = People's Republic of China, q-o-q = quarter-on-quarter, Repo = repurchase, SHIBOR = Shanghai Interbank Offered Rate, y-o-y = year on year.
Source: *ChinaMoney*, *Wind*, and *AsianBondsOnline*.

Table 5: Selected Sovereign Ratings and Outlook for the People's Republic of China

	Moody's	S&P	Fitch	R&I
Sovereign FCY LT Ratings	Aa3	A+	AA–	A+
Outlook	Positive	Stable	Stable	Stable

FCY = foreign currency, LT = long-term.
Source: Rating agencies.

Policy, Institutional, and Regulatory Developments

The PRC Widens CNY Trading Band

On 14 April, the PRC widened the band in which the CNY is allowed to trade against the United States (US) dollar. The trading band was widened from 0.5% to 1.0% above or below the daily reference rate.

PBOC and World Bank Sign Investment Agreement

On 23 April, the PBOC and the World Bank Group signed an agreement allowing the latter to invest in the PRC's interbank bond market.

The PRC, Japan, and the Republic of Korea Agree to Promote Cross-Border Bond Investment

On 3 May, the PRC, Japan, and the Republic of Korea agreed to enhance trilateral financial cooperation. The three countries agreed to promote investment by their respective foreign reserve authorities in each other's local bond markets.

PBOC Reduces Reserve Requirement Ratios

On 14 May, the PBOC cut banks' reserve requirement ratio by 50 bps. It was the second reserve requirement ratio cut this year.

Pilot Program for SME Bonds Launched

On 23 May, the PRC launched a pilot program for the issuance of private placement bonds by SMEs. The interest rates for the bonds will be capped at a maximum of three times the benchmark policy rate and the bonds must have maturities of 1 year or more.

The PRC and Japan Begin Direct CNY–JPY Trading

On 30 May, the PRC and Japan began directly trading their currencies, bypassing the need to first convert the currencies into US dollars. Also, unlike CNY–US$ trading, CNY–JPY trading conducted in Japan will not be subject to a peg. However, CNY–JPY trading conducted in the PRC will be subject to a trading peg. The PBOC said that the move will help develop the foreign exchange market and reduce trading costs between the two countries.

PRC Expands Asset-Backed Securitization Program for Banks

On 8 June, the PRC launched a pilot program for asset-backed securitization in the banking sector. The program is an expansion of a prior asset-backed securitization program that was halted in 2008. Under the new program, the investor base will be expanded to include insurance companies, investment funds, corporate pension funds, National Social Security Funds, and other qualified non-bank institutional investors. Ratings from two agencies will be required and the originator is required to maintain a 5% equity tranche in the securitized assets.

The PRC Cuts Benchmark Rates

On 8 June, the PRC cut interest rates by 25 bps for the first time in 3 years. In addition, it adjusted the bands by which banks can vary their rates from the benchmark policy rates. The upper limit for deposit rates was set at 110% and the floor for lending rates was set at 80%. The PRC cut interest rates again on 5 July, this time by 31 bps for the lending rate and 25 bps for the deposit rate. This set the 1-year benchmark lending rate to 6.0% and the deposit rate to 3.0%. Also, the floor for lending rates was adjusted to 70% of the benchmark.

The PRC and Ukraine Sign Currency Swap Agreement

On 26 June, the PRC and Ukraine signed a currency swap agreement worth CNY19 billion. The 3-year agreement is designed to improve financial cooperation, facilitate trade and investment, and promote regional stability.

The PRC Limits Local Government Bond Issuance

On 28 June, during the budget session of the Standing Committee of the National People's Congress, the government rescinded an article in a budget law that would have allowed local governments to issue bonds directly. The move was taken in order to help contain fiscal risks.

The move, however, will not affect the prior approval given to Shanghai, Shenzhen, Guangdong, and Zheijang to issue local government bonds subject to a quota.

NAFMII Issues Guidelines for Asset-Backed Securities of Non-Financial Companies

On 8 August, the National Association of Financial Market Institutional Investors (NAFMII) issued guidelines allowing non-financial corporations to issue asset-backed securities. Previously, only banks were allowed to issue asset-backed securities. Under the guidelines, the bonds can either be sold through the interbank market or via private placement. If the bonds will be sold through the interbank market, there should be at least two ratings from two different rating agencies. Ningbo Urban Construction Investment, Nanjing Public Holding Group, and Shanghai Pudong Road & Bridge Construction were the first to issue bonds under the new rules.

Hong Kong, China—Update

Yield Movements

The yield curve for Hong Kong, China's Exchange Fund Bills and Notes (EFBNs) shifted markedly downward between end-December 2011 and end-July 2012 **(Figure 1)**. The downward shift was greatest for the 7-year tenor, which fell 89 basis points (bps). The longer-end of the curve shifted downward more sharply than the shorter-end, with the longer-end falling between 72 bps and 89 bps. The shorter-end of the yield curve, in contrast, fell only 7 bps–9 bps.

Due to the greater downward shift at the longer-end of the yield curve, the spread between the 2- and 10-year rates fell to 50 bps at end-July from 112 bps at end-December.

Yields declined as Hong Kong, China's economy continued to weaken. Gross domestic product (GDP) growth improved slightly in 2Q12, growing 1.1% year-on-year (y-o-y) from 0.4% in 1Q12. The sluggish GDP growth in the past 2 quarters has been driven by weakness in the external environment. Real exports grew 1.1% y-o-y in 2Q12 after falling 5.7% y-o-y in 1Q12.

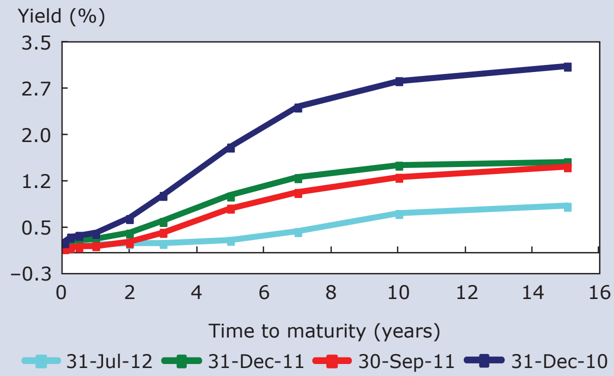
As a result of the weak economic performance, inflation tapered off in 2Q12. Consumer price inflation was at 4.3%, 3.7%, and 1.6% y-o-y for the months of May, June, and July, respectively. The decline in inflation rates was due mainly to moderating food and housing rental prices.

Size and Composition

The size of Hong Kong, China's local currency (LCY) bond market grew 3.7% y-o-y to HKD1.3 trillion (US$174 billion) at end-June **(Table 1)**. On a quarter-on-quarter (q-o-q) basis, LCY bonds outstanding rose 1.2%.

Total LCY government bonds outstanding had risen 5.3% y-o-y and 2.1% q-o-q as of end-June. Government bonds include Exchange Fund Bills (EFBs), Exchange Fund Notes (EFNs), and bonds issued under the Institutional Bond Issuance Programme (HKSAR Bonds).

Figure 1: Hong Kong, China's Benchmark Yield Curve—EFBNs



EFBN = Exchange Fund Bills and Notes.
Source: Bloomberg LP.

The amount of LCY government bonds outstanding at end-June reached HKD720 billion. Most of the growth in government bonds in 2Q12 can be attributed to growth in HKSAR Bonds, which expanded 113.3% y-o-y to HKD64 billion from HKD30 billion at end-June 2011. On the other hand, the stock of EFNs declined slightly by 0.9% y-o-y to HKD69 billion, while EFBs grew only 0.4% y-o-y to HKD587 billion.

In May, HKD3 billion in 3-year HKSAR Bonds were issued, while HKD1.5 billion in 5-year bonds were sold in June. Also, HKD10 billion in 3-year bonds were sold as part of the government's Retail Bond Issuance Programme in June.

The amount of LCY corporate bonds outstanding rose to HKD627 billion at end-June, reflecting growth of 1.9% y-o-y and 0.1% q-o-q. The top 25 non-bank corporate issuers in Hong Kong, China accounted for almost 15% of total corporate bonds outstanding at end-June **(Table 2)**. Hong Kong, China's top corporate issuer of LCY bonds remained the state-owned Hong Kong Mortgage

Corporation (HKMC) with outstanding bonds valued at HKD17.7 billion at end-June. Sun Hung Kai Properties (Capital Market) Ltd. was the next largest issuer with outstanding bonds of HKD10.9 billion, while CLP Power Hong Kong Financing Ltd. was in the third spot with HKD10.5 billion.

Financial firms dominated the list of the top 25 non-bank corporate issuers, accounting for 9 out of the 25 issuers. Six state-owned companies were included on the list, while 14 were privately owned. Among the companies in Table 2, five are listed on the Hong Kong Exchange.

Table 1: Size and Composition of the LCY Bond Market in Hong Kong, China

	Amount (billion)								**Growth Rate** (%)						
	Mar-12		**Apr-12**		**May-12**		**Jun-12**		**Mar-12**		**Apr-12**	**May-12**	**Jun-12**		
	HKD	**US$**	**HKD**	**US$**	**HKD**	**US$**	**HKD**	**US$**	**y-o-y**	**q-o-q**	**m-o-m**	**m-o-m**	**y-o-y**	**q-o-q**	**m-o-m**
Total	1,331	171	1,332	172	1,335	172	1,347	174	2.9	1.7	0.02	0.3	3.7	1.2	0.9
Government	705	91	705	91	709	91	720	93	3.5	0.3	0.01	0.4	5.3	2.1	1.7
Exchange Fund Bills	587	76	587	76	587	76	587	76	0.5	0.1	0.01	0.1	0.4	0.1	0.01
Exchange Fund Notes	69	9	69	9	69	9	69	9	(0.9)	0.0	0.0	(0.9)	(0.9)	(0.4)	0.4
HKSAR Bonds	50	6	50	6	53	7	64	8	80.0	3.1	0.0	6.1	113.3	29.3	21.9
Corporate	626	81	626	81	626	81	627	81	2.3	3.4	0.04	0.04	1.9	0.1	0.04

HKSAR = Hong Kong Special Administrative Region, LCY = local currency, m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–US$ rates are used.
3. Growth rates are calculated from LCY base and do not include currency effects.
Source: Hong Kong Monetary Authority and Bloomberg LP.

Policy, Institutional, and Regulatory Developments

HKMA Removes 20% Renminbi Net-Open Position Limits

On 22 May, the Hong Kong Monetary Authority (HKMA) removed the 20% renminbi net-open position limit for authorized institutions. The affected institutions may now set their own position limit so long as the HKMA is informed and endorses the proposed limit.

Renminbi Liquidity Facility Opened

On 15 June, the HKMA established a facility through which authorized institutions can obtain renminbi funding, provided sufficient eligible collateral is available. The renminbi funding has a tenor of 1 week; eligible collateral includes EFBNs, HKSAR Bonds, and CNH-denominated bonds issued by the People's Republic of China (PRC).

HKMA Launches Microfinance Scheme

On 29 June, the Hong Kong Mortgage Corporation, in cooperation with six banks and five non-governmental organizations (NGOs), launched the Microfinance Scheme to provide microfinance loans of up to HKD300,000 with a maximum tenor of 5 years. The target borrowers for the program are business starters; self-employed persons; and those wishing to undergo training, upgrade their skills, or take certification programs.

Table 2: Top 25 Non-Bank Corporate Issuers in Hong Kong, China (as of end-June 2012)

Issuers	Outstanding Amount		State-Owned	Privately-Owned	Listed Company	Type of Industry
	LCY Bonds (HKD billion)	LCY Bonds (US$ billion)				
1. The Hong Kong Mortgage Corporate Ltd.	17.66	2.28	Yes	No	No	Finance
2. Sun Hung Kai Properties (Capital Market) Ltd.	10.86	1.40	No	Yes	No	Real Estate
3. CLP Power Hong Kong Financing Ltd.	10.48	1.35	No	Yes	No	Energy
4. Kowloon-Canton Railway Corporation	6.30	0.81	Yes	No	No	Transportation
5. MTR Corporation (C.I.) Ltd.	6.20	0.80	Yes	No	Yes	Transportation
6. The Link Finance (Cayman) 2009 Ltd.	5.29	0.68	No	Yes	No	Finance
7. HKCG (Finance) Limited	5.29	0.68	No	Yes	No	Gas
8. Swire Pacific MTN Financing Ltd.	4.98	0.64	No	Yes	No	Diversified
9. Hongkong Electric Finance Ltd.	4.01	0.52	No	Yes	No	Energy
10. Urban Renewal Authority	3.00	0.39	Yes	No	No	Property Development
11. Airport Authority Hong Kong	2.60	0.34	Yes	No	No	Transportation
12. Wharf Finance Ltd.	2.50	0.32	No	Yes	No	Diversified
13. Cheung Kong Bond Finance Ltd.	2.45	0.32	No	Yes	Yes	Finance
14. Hysan (MTN) Ltd.	2.43	0.31	No	Yes	No	Finance
15. Cheung Kong Finance (MTN) Ltd.	2.21	0.28	No	Yes	No	Finance
16. Yue Xiu Enterprises (Holdings) Ltd.	2.00	0.26	No	Yes	No	Diversified
17. Henderson Land MTN Ltd.	1.83	0.24	No	Yes	Yes	Finance
18. Wheelock Finance Ltd.	1.59	0.20	No	Yes	No	Diversified
19. Cathay Pacific MTN Financing Ltd.	1.18	0.15	No	No	Yes	Airlines
20. Wharf Finance (No.1) Ltd.	1.14	0.15	No	Yes	No	Diversified
21. Dragon Drays Ltd.	1.00	0.13	No	Yes	No	Diversified
22. Bauhinia MBS Ltd.	0.86	0.11	Yes	No	No	Finance
23. Cheung Kong Infrastructure Finance (BVI) Ltd.	0.26	0.03	No	Yes	Yes	Finance
24. Wharf Finance (BVI) Ltd.	0.25	0.03	No	Yes	No	Diversified
25. The Hongkong Land Notes Company Ltd.	0.20	0.03	No	Yes	No	Finance
Total Top 25 Non-Bank LCY Corporate Issuers	**93.99**	**12.12**				
Total LCY Corporate Bonds	**626.73**	**80.79**				
Top 25 as % of Total LCY Corporate Bonds	**15.0%**	**15.0%**				

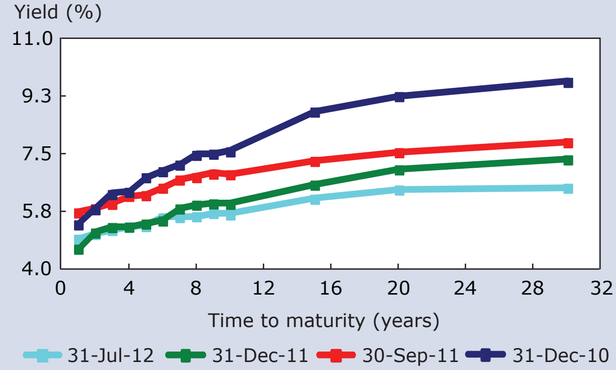
LCY = local currency.
Note: Based on Central Money Markets Unit data on tradeable non-bank debt securities issued and outstanding as of 1 July 2011.
Source: Hong Kong Monetary Authority.

Indonesia—Update

Yield Movements

The local currency (LCY) government bond yield curve in Indonesia continued to flatten between end-December 2011 and end-July 2012, with yields at the longer-end of the curve falling more than at the shorter-end **(Figure 1)**. Indonesian government bond yields fell amid fears that Europe's debt crisis would dampen economic growth. Yields fell across all tenors with the exception of the 1- and 6-year maturities, which rose 30 basis points (bps) and 9 bps, respectively. Yields fell between 4 bps and 85 bps from the 2-year maturity through the end of the curve. Yields at the longer-end of the curve (15-, 20-, and 30-years) fell between 43 bps and 85 bps. As a result, the yield spread between the 2- and 10-year maturities narrowed to 59 bps at end-July from 86 bps at end-December.

Figure 1: Indonesia's Benchmark Yield Curve—LCY Government Bonds



LCY = local currency.
Source: Bloomberg LP.

Consumer price inflation accelerated slightly in July to 4.56% year-on-year (y-o-y) from 4.53% in June on higher food prices. This, however, was still within the central bank's target range of 3.5%–5.5% for the year. According to the Central Statistics Agency (BPS), the increase in inflation is considered normal and was driven by seasonal factors such as the start of the fasting month of Ramadan and the start of the new academic year. On a month-on-month (m-o-m) basis, consumer prices rose 0.70% in July, following a rise of 0.62% in June.

On 9 August, Bank Indonesia's (BI) Board of Governors decided to keep the benchmark rate steady at 5.75%. The BI rate has been kept at its current record-low level since February. The central bank said that at its current level, the BI rate remains consistent with low and controlled inflation as targeted for the year. The central bank also said that it will remain vigilant about the rising current account deficit caused by the weaker export performance as the global economy slowed.

Weak global demand and declining commodity prices continued to affect Indonesian exports, resulting in a 16.4% y-o-y contraction in June, after declining a revised 8.0% in May. Import growth eased to 10.7% y-o-y in June from a revised annual growth rate of 14.9% in May. Indonesia reported a trade deficit for a third consecutive month in June, posting a record-high deficit of US$1.3 billion. In August, BI and the government initiated policy measures aimed at addressing the widening current account deficit. (See **Policy, Institutional, and Regulatory Developments** for more detail.)

In 2Q12, the real gross domestic product (GDP) growth rate of Indonesia accelerated to 6.4% y-o-y, compared with a 6.3% annual growth rate in 1Q12, led mainly by private consumption and investment. Domestic consumption grew 5.0% y-o-y and investment growth climbed 12.3%. All major industry sectors reported positive growth in 2Q12 compared with year-ago levels, led by transport and communications (10.1%), hotels and restaurants (8.9%), construction (7.3%), and financial services (7.0%). Between 1Q12 and 2Q12, the economy expanded 2.8%. BI estimates full-year 2012 economic growth to settle between 6.1% and 6.5%.

Table 1: Size and Composition of the LCY Bond Market in Indonesia

	Amount (billion)								**Growth Rate** (%)						
	Mar-12		**Apr-12**		**May-12**		**Jun-12**		**Mar-12**		**Apr-12**	**May-12**	**Jun-12**		
	IDR	US$	IDR	US$	IDR	US$	IDR	US$	y-o-y	q-o-q	m-o-m	m-o-m	y-o-y	q-o-q	m-o-m
Total	1,013,454	111	1,026,071	112	1,035,125	109	1,050,246	111	(1.6)	2.0	1.2	0.9	3.8	3.6	1.5
Government	858,644	94	870,982	95	879,099	93	884,029	94	(5.5)	1.4	1.4	0.9	0.5	3.0	0.6
Central Govt. Bonds	760,580	83	772,330	84	780,275	82	791,180	84	12.7	5.1	1.5	1.0	14.5	4.0	1.4
Central Bank Bills	98,064	11	98,652	11	98,824	10	92,849	10	(58.0)	(20.4)	0.6	0.2	(50.9)	(5.3)	(6.0)
Corporate	154,810	17	155,089	17	156,026	16	166,217	18	27.8	5.3	0.2	0.6	25.9	7.4	6.5

LCY = local currency, m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–US$ rates are used.
3. Growth rates are calculated from LCY base and do not include currency effects.
4. The total stock of non-tradable bonds as of end-June stood at IDR278.4 trillion
Source: Bank Indonesia, Indonesia Debt Management Office, Indonesia Stock Exchange, and Bloomberg LP.

Size and Composition

The size of Indonesia's LCY bond market climbed to IDR1.05 quadrillion (US$111.3 billion) in 2Q12, expanding 3.8% y-o-y after declining 1.6% in 1Q12 **(Table 1)**. On a quarter-on-quarter (q-o-q) basis, bonds outstanding grew 3.6% in 2Q12, compared with 2.0% in the previous quarter. Growth in Indonesia's bond market was mostly driven by the corporate sector.

At end-June, LCY government bonds outstanding had grown at a marginal rate of only 0.5% y-o-y to reach IDR884.0 trillion. Growth in the government bond market was mainly driven by central government bonds, which comprise treasury bills and bonds issued by the Ministry of Finance. The stock of central bank bills, known as *Sertifikat* Bank Indonesia (SBI), continued to drop significantly, falling 50.9% y-o-y and 5.3% q-o-q.

Central Government Bonds. The stock of central government bonds rose 14.5% y-o-y to IDR791.2 trillion in 2Q12. On a q-o-q basis, central government bonds rose a modest 4.0%. Government bonds accounted for nearly 85% of Indonesia's total LCY bonds outstanding.

At end-June, some 68.4% of the total LCY government bonds were fixed-rate bonds and 16.4% were variable-rate bonds **(Table 2)**. Conventional treasury bills and retail bonds accounted for 3.6% and 3.8%, respectively, of the total, while *sukuk* (Islamic bonds) as a whole accounted for 7.6%. Among the Islamic instruments, retail *sukuk* accounted for 3.7% of total government bonds outstanding and Islamic treasury bills and project-based *sukuk* each accounted for 2.0% or less.

In 2Q12, new issuance of treasury bills and bonds reached IDR40.5 trillion for a 2.4% increase over a year earlier. On a q-o-q basis, however, central government bond issuance fell 32.9%. Issuance volume in 2Q12 was less than the government's target of IDR46.5 trillion.

The government raised during the first 6 months of 2012 a total of IDR117.6 trillion through bond

Table 2: Government Bonds Outstanding by Type of Bond (as of end-June 2012)

Government Bonds	Amount Outstanding (IDR billion)	% Share
Treasury Bills (SPN)	28,180	3.6
Fixed-Rate Bonds	540,732	68.35
Variable-Rate Bonds	129,773	16.40
Zero Coupon Bonds	2,512	0.32
Retail Bonds	29,775	3.8
Islamic Treasury Bills	1,185	0.15
Sukuk	17,137	2.17
Retail *Sukuk*	28,989	3.66
Project-Based *Sukuk*	12,897	1.63
Total	**791,180**	**100.00**

Source: Indonesia Stock Exchange.

Table 3: Corporate Bonds Outstanding by Type of Bond (as of end-June 2012)

Corporate Bonds	Amount Outstanding (IDR billion)	% Share
Conventional Bonds	137,387	82.66
Subordinate Bonds	22,611	13.60
Conversion Bonds	150	0.09
Zero Coupon Bonds	500	0.30
Sukuk Ijarah	4,480	2.70
Sukuk Mudharabah	775	0.47
Sukuk Mudharabah Subordinate	314	0.19
Total	**166,217**	**100.00**

Notes:
1. *Sukuk Ijarah* refers to Islamic bonds backed by a lease agreement.
2. *Sukuk Mudharabah* refers to Islamic bonds backed by a profit-sharing scheme from a business venture or partnership.

Source: Indonesia Stock Exchange.

sales (including international bond issuance), representing 73.7% of the 2012 revised state budget target of IDR159.6 trillion. According to the Ministry of Finance's Debt Management Office, government issuance in the second half of 2012 is expected to reach IDR42 trillion. The government will continue to prioritize issuance of IDR-denominated government securities as part of its financing strategy. In addition, the government plans to issue global *sukuk* and *samurai* bonds.

Corporate Bonds. The corporate bond market in Indonesia continued to post strong growth in 2Q12 as it expanded 25.9% y-o-y. On a q-o-q basis, corporate bonds grew a more modest 7.4%. Corporate bonds only comprise a small share of Indonesia's LCY bond market, with a share of 15.8% of total LCY bonds.

About 83% of total corporate bonds outstanding in 2Q12 were conventional bonds **(Table 3)**. Subordinated bonds accounted for some 13.6% of total outstanding corporate bonds. *Sukuk* issues by corporate entities represented a small percentage of total corporate bonds, with a share of only 3.4% at end-June.

The top 30 LCY corporate bond issuers in Indonesia accounted for nearly 80% of total corporate bonds outstanding at the end of 2Q12 **(Table 4)**. Total bonds issued by the top 30 corporate issuers reached IDR130.6 trillion. State-power firm PLN remained the top issuer of LCY corporate bonds with total bonds valued at IDR14.2 trillion. Telecommunications firm Indosat rose to the second spot with bonds outstanding of IDR9.4 trillion. Automotive leasing company Adira Dinamika Multifinance dropped to the third spot with bonds outstanding of IDR8.0 trillion at end-June.

Issuers from the banking and financial sectors dominated the top 30 list at end-June, accounting for 73% of the firms listed. Ten companies on the top 30 list were state-owned firms. More than half of the 30 firms were listed on the Indonesia Stock Exchange.

Corporate bond issuance surged in 2Q12, with total issuance reaching IDR25.0 trillion on 42 bond series from 19 corporate entities. Compared with 2Q11 and 1Q12, corporate issuance in 2Q12 was up 67.2% y-o-y and 131.7% q-o-q, respectively, albeit from a low base. New corporate bond issues in 2Q12 were mostly conventional bonds, except for three subordinated bond issues and two *sukuk*. More than half of total corporate issuance in 2Q12 carried maturities of 3 years–5 years, and two bond issues carried maturities of 10 years. **Table 5** lists some notable corporate bonds issued in 2Q12.

Motorcycle financing company Federal international Finance raised a total of IDR4.0 trillion of bonds through a triple-tranche bond sale in April. The proceeds from the sale will be used to help boost

Table 4: Top 30 Issuers of LCY Corporate Bonds in Indonesia (as of end-June 2012)

Issuers	Outstanding Amount		State-Owned	Privately-Owned	Listed Company	Type of Industry
	LCY Bonds (IDR billion)	LCY Bonds (US$ billion)				
1. PLN	14,208	1.51	Yes	No	No	Energy
2. Indosat	9,350	0.99	No	Yes	Yes	Telecommunications
3. Adira Dinamika Multifinance	8,032	0.85	No	Yes	Yes	Finance
4. Federal International Finance	7,379	0.78	No	Yes	No	Finance
5. Astra Sedaya Finance	7,355	0.78	No	Yes	No	Finance
6. Bank Tabungan Negara	7,150	0.76	Yes	No	Yes	Banking
7. Indonesia Eximbank	7,034	0.75	Yes	No	No	Banking
8. Bank Pan Indonesia	5,500	0.58	No	Yes	Yes	Banking
9. Jasa Marga	5,000	0.53	Yes	No	Yes	Toll Roads, Airports, and Harbors
10. Perum Pegadaian	4,664	0.49	Yes	No	No	Finance
11. Bank CIMB Niaga	4,480	0.47	No	Yes	Yes	Banking
12. Bank Internasional Indonesia	4,000	0.42	No	Yes	Yes	Banking
13. Bank Tabungan Pensiunan Nasional	3,650	0.39	No	Yes	Yes	Banking
14. Indofood Sukses Makmur	3,610	0.38	No	Yes	Yes	Food and Beverages
15. Bank Mandiri	3,500	0.37	Yes	No	Yes	Banking
16. Antam	3,000	0.32	Yes	No	Yes	Petroleum and Natural Gas
17. Telekomunikasi Indonesia	3,000	0.32	Yes	No	Yes	Telecommunications
18. Sarana Multigriya Finansial	2,812	0.30	Yes	No	No	Finance
19. Bank Danamon Indonesia	2,800	0.30	No	Yes	No	Banking
20. Bank Jabar Banten	2,750	0.29	No	Yes	Yes	Banking
21. BCA Finance	2,708	0.29	No	Yes	No	Finance
22. Toyota Astra Financial Services	2,500	0.27	No	Yes	No	Finance
23. Medco-Energi Internasional	2,487	0.26	No	Yes	Yes	Petroleum and Natural Gas
24. Bank Permata	2,450	0.26	No	Yes	Yes	Banking
25. Indomobil Finance Indonesia	2,225	0.24	No	Yes	No	Finance
26. Bank Rakyat Indonesia	2,000	0.21	Yes	No	Yes	Banking
27. Japfa	2,000	0.21	No	Yes	Yes	Animal Feed
28. Surya Artha Nusantara Finance	1,995	0.21	No	Yes	No	Finance
29. Bank Bukopin	1,500	0.16	No	Yes	Yes	Banking
30. Bank DKI	1,500	0.16	No	Yes	No	Banking
Total Top 30 LCY Corporate Issuers	**130,637**	**13.85**				
Total LCY Corporate Bonds	**166,217**	**17.62**				
Top 30 as % of Total LCY Corporate Bonds	**78.6%**	**78.6%**				

LCY = local currency.
Source: Indonesia Stock Exchange.

Table 5: Notable LCY Corporate Issuance, 2Q12

Corporate Issuers	Amount Issued (IDR billion)
Federal International Finance	4,000
Indosat	3,000
Bank Tabungan Negara	2,000
Indofood Sukses Makmur	2,000
Adira Dinamika Multifinance	1,850
BCA Finance	1,700
Medco-Energi Internasional	1,500
Indomobil Finance	1,300
Toyota Astra Financial Services	1,300
Sarana Multigriya Finansial	1,250
Mayora Indah	1,000
Others	4,124
Total	**25,024**

Source: Indonesia Stock Exchange.

the company's lending business. The bond sale comprised the following series:

- 370-day bonds worth IDR998 billion, coupon of 6.40%;
- 2-year bonds worth IDR1.3 trillion, coupon of 7.35%; and
- 3-year bonds worth IDR1.6 trillion, coupon of 7.65%.

Indosat, an Indonesian mobile operator, issued a total of IDR3.0 trillion worth of bonds in a three-tranche bond sale in June. The proceeds from the bond sale will finance the company's operations and fund its bond buyback program. The bond issue consisted of the following series:

- 7-year bonds worth IDR1.2 trillion, coupon of 8.625%;
- 10-year bonds worth IDR1.5 trillion, coupon of 8.875; and
- 7-year *sukuk* worth IDR300 billion, coupon of 8.625%.

Bank Tabungan Negara issued a total of IDR2 trillion of 10-year conventional bonds in June. The bonds carry a coupon of 7.90%. Proceeds from the bond sale will be used for credit expansion and to settle maturing debts.

Indonesian noodle manufacturer Indofood Sukses Makmur issued a IDR2 trillion 5-year bond in May. The bond carries a coupon of 7.25% and was given a rating of idAA+ from Pefindo. The sale was oversubscribed with the order book reaching IDR6 trillion.

Automotive financing firm Adira Dinamika Multifinance issued a total of IDR1.85 trillion through a triple-tranche bond sale in May. The bonds consisted of the following series:

- 1-year bonds worth IDR786 billion, coupon of 6.50%;
- 2-year bonds worth IDR200 billion, coupon of 7.50%; and
- 3-year bonds worth IDR864 billion, coupon of 7.75%.

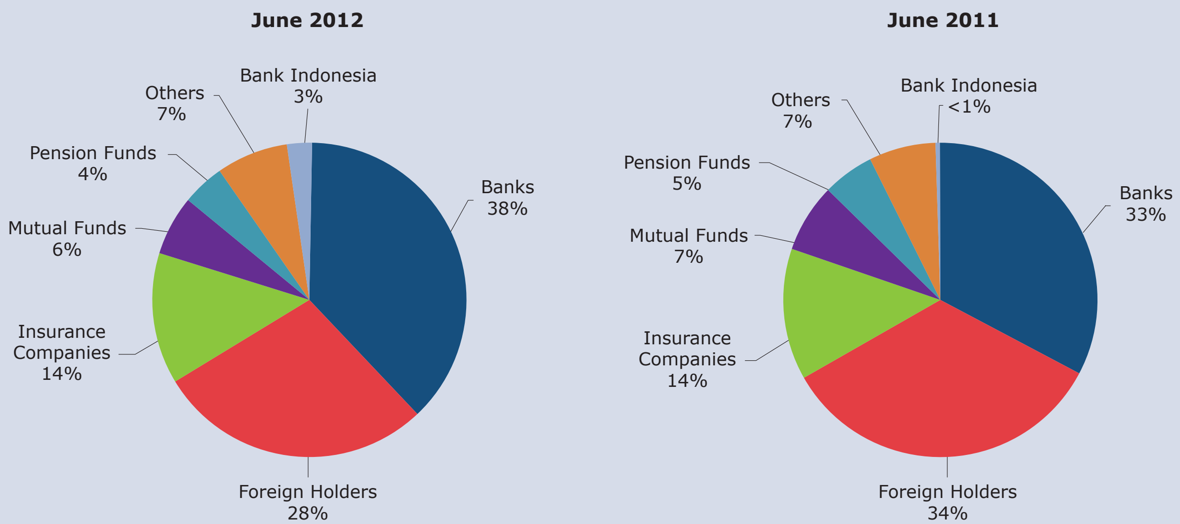
Automotive financing company BCA Finance raised a total of IDR1.7 trillion worth of bonds in May. The proceeds from the bond sale will be used to boost the company's financing requirements. The bonds consisted of the following series:

- 1-year bonds worth IDR650 billion, coupon of 6.35%;
- 2-year bonds worth IDR200 billion, coupon of 7.35%;
- 3-year bonds worth IDR250 billion, coupon of 7.60%; and
- 4-year bonds worth IDR600 billion, coupon of 7.70%.

Investor Profile

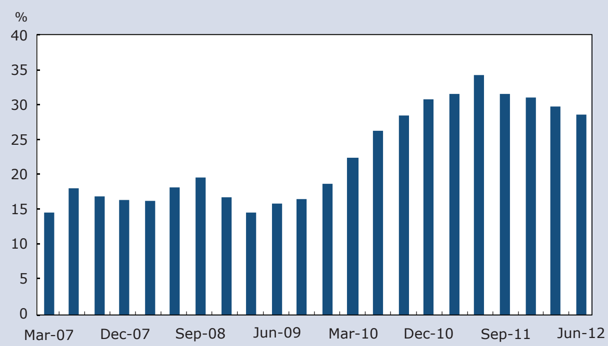
Central Government Bonds. At the end of 2Q12, banking institutions were the largest holders of central government bonds in Indonesia **(Figure 2)**. The share of banking institutions climbed to 38% in 2Q12 from 33% in the same period a year earlier. Banking institutions include state banks, private banks, non-recap banks, regional banks, and *shari'a* (Islamic law) banks. Among these institutions, state banks accounted for nearly 50% of total bond holdings.

Figure 2: LCY Government Bonds Investor Profile



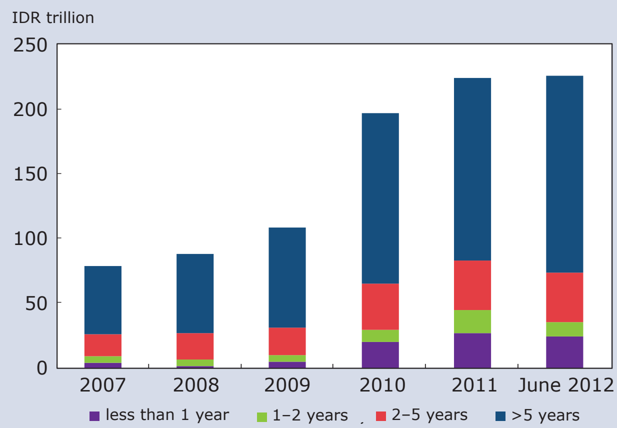
LCY = local currency.
Source: Indonesia Debt Management Office.

Figure 3: Quarterly Foreign Investor Share of LCY Government Bonds, March 2007–June 2012



LCY = local currency
Source: Indonesia Debt Management Office.

Figure 4: Foreign Holdings of LCY Government Bonds by Maturity, 2007–June 2012



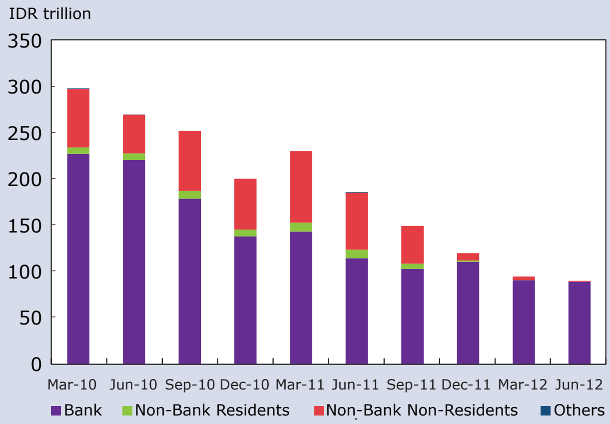
LCY = local currency.
Source: Indonesia Debt Management Office.

Between end-June 2011 and end-June 2012, the share of central government bonds held by foreign investors fell from 34% to 28% **(Figure 3)**. Foreign investors began selling government bonds heavily in September 2011. While concerns over the eurozone crisis have led foreign investors to reduce their exposure to emerging market assets, their share of the Indonesian LCY bond market remains the highest in the region.

In 2Q12, 67.3% of LCY bonds held by foreigners were in long-dated tenors (maturities of 5 years or more) **(Figure 4)**. This was an increase from the 63.2% share of the total recorded at end-2011. Offshore holdings of short-dated tenors (bonds with maturities of less than 1 year) dropped to 10.6% at end-June from a share of 11.9% at end-December.

At end-June, the share of LCY government bonds held by BI climbed to 3.0%, reaching IDR20.4 trillion from only IDR3.1 trillion at end-

Figure 5: LCY Central Bank Bills Investor Profile, March 2010–June 2012



LCY = local currency.
Source: Bank Indonesia.

June 2011. The central bank has actively supported the LCY bond market through the purchase of government bonds as part of efforts to stabilize market prices.

Meanwhile, the share of contractual savings institutions' holdings of government bonds in Indonesia remained low in 2Q12 compared with other markets in the region. The share of insurance companies was steady at 14.0% at end-June, the same share as a year earlier. On the other hand, the share of pension funds fell slightly to 4.0% from 5.0% over the same period.

Central Bank Bills. At end-June, SBI were held almost entirely by banking institutions, with an ownership share of 99.0%, compared with 95.7% in 1Q12 and 92.2% in 4Q11 **(Figure 5)**. The remaining 1.0% was held by foreign investors, a share that has dropped substantially since March 2011 after reaching a high of 33.0% in early 2011. The central bank's implementation of a 6-month holding period for SBI effectively negated foreign investor interest in SBI.

Rating Changes

On 23 April, Standard & Poor's (S&P) affirmed Indonesia's short- and long-term sovereign ratings at B and BB+, respectively, with the outlook remaining positive for both **(Table 6)**. According to S&P, "the rating on Indonesia balances institutional and economic constraints with a moderately strong fiscal, external, and monetary profile." The rating agency also said "the positive outlook signals the potential for an upgrade if the country's growth prospects improve further and financial markets deepen with steadier policy implementation."

Table 6: Selected Sovereign Ratings and Outlook for Indonesia

	Moody's	S&P	Fitch	R&I
Sovereign FCY LT Ratings	Baa3	BB+	BBB–	BB+
Outlook	Stable	Positive	Positive	Positive

FCY = foreign currency, LT = long-term.
Source: Rating agencies.

On 16 July, Moody's Investors Service (Moody's) maintained its stable outlook on Indonesia's Baa3 sovereign rating. The rating agency cited Indonesia's strong growth, low government debt, and recent track record of prudent fiscal management as the reasons for its ratings action. Earlier this year, Moody's raised Indonesia's foreign currency (FCY) and LCY ratings to Baa3 from Ba1, with a stable outlook for both.

Policy, Institutional, and Regulatory Developments

Government Postpones Issuance of Project-Financing *Sukuk*

In April, the government announced that its plan to issue project-financing *sukuk* (Islamic bonds issued to finance new projects) would be postponed until 2013 due to administrative reasons. Approval from the House of Representatives is required for issuance of *sukuk* backed by project financing. Currently, the National Development Planning Agency (Bappenas) is still in the process of selecting projects proposed by ministries and agencies. The government had previously announced plans to issue project-financing *sukuk* in 2H12 to complement the existing stock of project-based *sukuk* (Islamic bonds backed by infrastructure projects).

BI Issues FCY Term Deposit

In June, BI began offering a term deposit instrument for FCY. The new instrument involves the placement of FCY by banks with BI. According to the central bank, the term deposit will be managed through various foreign exchange (FX) transactions to increase the FX supply in the market and enhance monetary policy operations through FX swap operations. The FCY term deposit facilities will carry maturities of 7, 14, and 30 days, and will be auctioned every Wednesday, or on other days as specified by BI. The central bank held its first auction on 13 June, consisting of 7- and 14-day term deposits. The auction was oversubscribed as bids reached US$1.6 billion compared with a target of US$700 million.

BI Signs MOUs with Australia and the Republic of Korea on Cross-Border Bank Supervision

In June, BI entered into memorandums of understanding (MOUs) on cross-border banking supervision with the Australian Prudential Regulation Authority and the Republic of Korea's Financial Services Commission (FSC) and Financial Supervisory Service (FSS). The MOUs, which became effective on 6 June, promote mutual exchanges of information and enhance cooperation in the area of banking supervision. In 2010, BI also signed a similar agreement with Bank Negara Malaysia, the China Banking Regulatory Commission, and the Monetary Authority of Singapore.

PBOC and BI Interbank Bond Market Agreement

On 21 June, the People's Bank of China (PBOC) and BI signed an Agency Agreement that will allow BI to invest in the interbank bond market of the PRC. The agreement reflects close collaboration between the PBOC and BI, and represents cooperation as a follow-up to their bilateral swap agreement. According to BI, access to the PRC bond market will facilitate efforts to diversify its FX reserves. As of end-June, Indonesia's foreign exchange reserves totaled US$106.5 billion.

BI Announces New Regulations on Bank Ownership

In July, BI announced new regulations limiting investor ownership of Indonesians banks. Under the new rules that became effective 13 July, the new acquisition of a domestic commercial bank by a financial institution is limited to a 40% ownership stake, a non-financial institution to 30%, and families or individuals to 20%. State-owned banks and banks undergoing a recovery are exempt from the new rules. Also, exemptions can be granted for new acquisitions of listed banks exhibiting financial strength and possessing a Tier 1 capital ratio of more than 6%.

BI and the Indonesian Government Announce Measures to Address Increasing Current Account Deficit

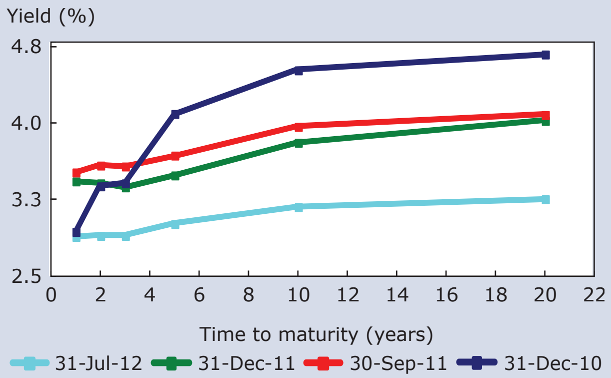
In August, BI and the government held a coordination meeting to discuss measures to help the economy cope with a rising current account deficit. New measures announced on the part of BI include the following: (i) BI will allow investors to hedge their FX transactions with financial instruments carrying a minimum tenor of 1 week from a minimum of 3 months previously, effective 14 August; (ii) BI raised the floor of its deposit facility rate by 25 bps to 4.0% from 3.75%; the upper limit remains at 6.75%; (iii) BI also plans to tighten credit growth by strengthening the implementation of Loan-to-Value (LTV) limit, including a plan to ban the use of unsecured personal loans for credit advances. On the government side, a number of policies will be pursued to strengthen the current account to boost exports, manage imports, and improve the investment climate through fiscal instruments. In particular, anticipatory measures have been undertaken by the government with respect to taxation and custom duties.

Republic of Korea—Update

Yield Movements

Government bond yields in the Republic of Korea fell for all tenors between end-December 2011 and end-July 2012, with the decline ranging from 49 basis points (bps) for both the 3- and 5-year tenors to 79 bps for the 20-year tenor **(Figure 1)**. The decline in yields has been attributed to expectations of a slowdown in the country's economic growth, amid sluggish economic performances among major trading partners and market concerns over the eurozone's sovereign debt and banking problems. The yield spread between 2- and 10-year tenors narrowed 12 bps between end-December and end-July—as the fall in the yield of the 10-year tenor was greater than in the 2-year.

Figure 1: The Republic of Korea's Benchmark Yield Curve—LCY Government Bonds



LCY = local currency.
Source: Bloomberg LP.

The Bank of Korea's Monetary Policy Committee decided on 9 August to keep the base rate—the 7-day repurchase rate—steady at 3.0%. In its previous meeting in July, the committee decided to lower the base rate by 25 bps. Inflationary pressures in the Republic of Korea have moderated, as the year-on-year (y-o-y) inflation rate based on the consumer price index dropped for 8 consecutive months, reaching 1.2% in August.

Real gross domestic product (GDP) growth slowed down to 0.3% quarter-on-quarter (q-o-q) in 2Q12 from 0.9% in 1Q12. Manufacturing activity fell 0.2% q-o-q in 2Q12, following 2.0% growth in the previous quarter. Private consumption rose 0.4% q-o-q, while government expenditure decreased 0.3%. Gross fixed capital formation and total exports contracted 2.9% and 0.6% q-o-q, respectively. On a y-o-y basis, real GDP grew 2.3% in 2Q12 after expanding 2.8% in 1Q12.

Size and Composition

Total local currency (LCY) bonds outstanding in the Republic of Korea grew 9.7% y-o-y and 2.1% q-o-q to KRW1,491 trillion (US$1.3 trillion) as of end-June **(Table 1)**. The outstanding amount of LCY government bonds stood at KRW601.2 trillion, up 3.0% y-o-y and roughly unchanged from the previous quarter. Central government bonds, which include Korea Treasury Bonds (KTBs), posted positive growth rates of 5.5% y-o-y and 1.1% q-o-q to level off at KRW408.4 trillion. On the other hand, central bank bonds, or Monetary Stabilization Bonds (MSBs), recorded declines of 1.5% y-o-y and 2.0% q-o-q to settle at KRW164.6 trillion, while industrial finance debentures, or Korea Development Bank (KDB) bonds, fell 4.4% y-o-y and 5.0% q-o-q to KRW28.2 trillion.

In 2Q12, issuance of LCY government bonds amounted to KRW66.8 trillion, which was 1.5% lower than in the previous quarter. The quarterly decline stemmed from a 44.0% q-o-q drop in issuance of industrial finance debentures. Meanwhile, central government bond issues in 2Q12 totaled KRW22.6 trillion, which was only 0.3% higher than in the previous quarter. Central bank bond issues also rose marginally by 0.5% q-o-q to KRW42.5 trillion.

Table 1: Size and Composition of the LCY Bond Market in the Republic of Korea

	Amount (billion)								**Growth Rate** (%)						
	Mar-12		**Apr-12**		**May-12**		**Jun-12**		**Mar-12**		**Apr-12**	**May-12**	**Jun-12**		
	KRW	**US$**	**KRW**	**US$**	**KRW**	**US$**	**KRW**	**US$**	**y-o-y**	**q-o-q**	**m-o-m**	**m-o-m**	**y-o-y**	**q-o-q**	**m-o-m**
Total	1,461,197	1,290	1,468,452	1,299	1,488,483	1,261	1,491,463	1,302	10.0	3.2	0.5	1.4	9.7	2.1	0.2
Government	601,437	531	603,049	534	609,077	516	601,162	525	4.6	2.4	0.3	1.0	3.0	(0.05)	(1.3)
Central Bank Bonds	167,970	148	165,690	147	166,950	141	164,580	144	(0.3)	1.9	(1.4)	0.8	(1.5)	(2.0)	(1.4)
Central Government Bonds	403,751	356	408,552	362	413,276	350	408,361	357	6.7	2.8	1.2	1.2	5.5	1.1	(1.2)
Industrial Finance Debentures	29,716	26	28,807	25	28,851	24	28,221	25	5.9	(0.6)	(3.1)	0.2	(4.4)	(5.0)	(2.2)
Corporate	859,760	759	865,403	766	879,406	745	890,301	777	14.1	3.7	0.7	1.6	14.7	3.6	1.2

LCY = local currency, m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–US$ rates are used.
3. Growth rates are calculated from LCY base and do not include currency effects.
Source: EDAILY *BondWeb* and The Bank of Korea.

Total LCY corporate bonds outstanding at end-June stood at KRW890.3 trillion, representing a 14.7% y-o-y and 3.6% q-o-q increase in the size of the market. Private corporate bonds, which accounted for 43.8% of the total, expanded 22.8% y-o-y and 5.1% q-o-q to KRW389.8 trillion. Meanwhile, special public bonds climbed 16.9% y-o-y and 4.3% q-o-q to reach KRW296.0 trillion, or about one-third of total LCY corporate bonds outstanding. On the other hand, the outstanding stock of financial debentures (excluding KDB bonds) shrank 0.6% y-o-y and 0.3% q-o-q to level off at KRW204.5 trillion.

The top 30 LCY corporate bond issuers at end-June had combined bonds outstanding of KRW552.2 trillion, representing 62% of total LCY corporate bonds **(Table 2)**. Korea Land & Housing Corp. continued to be the largest corporate issuer with total bonds outstanding of KRW55.9 trillion.

LCY corporate bond issuance in 2Q12 reached KRW98.2 trillion, which was 12.2% lower than issuance in the previous quarter, as issuance fell for special public bonds, financial debentures, and private corporate bonds. However, corporate bond issues increased 16.8% from the same quarter in the previous year.

Liquidity

The turnover ratio for LCY government bonds climbed to 1.02 in 2Q12 from 0.96 in 1Q12. This was on the back of an increase in the turnover ratio for central government bonds, mostly KTBs, to 1.06 in 2Q12 from 0.95 in 1Q12. In contrast, the turnover ratio for MSBs fell to 1.13 in 2Q12 from 1.18 in 1Q12.

Trading activity improved in the KTB futures market, as the number of traded KTB futures contracts increased from 9.1 million in 1Q12 to 9.3 million in 2Q12. Furthermore, the share of 10-year KTB futures as a portion of the total market has been steadily on the rise and that of 3-year KTB futures has been on the decline **(Figure 2)**.

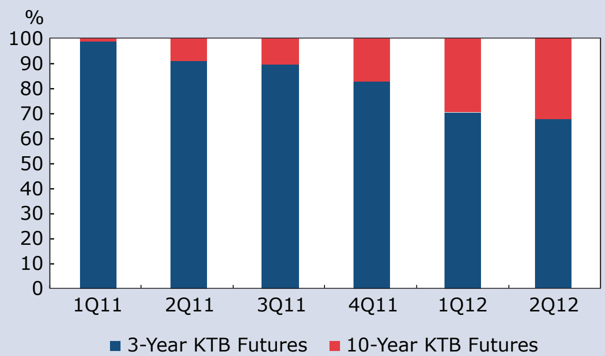
Table 2: Top 30 Issuers of LCY Corporate Bonds in the Republic of Korea (as of end-June 2012)

Issuers	Outstanding Amount		State-Owned	Privately-Owned	Listed on		Type of Industry
	LCY Bonds (KRW billion)	LCY Bonds (US$ billion)			KOSPI	KOSDAQ	
1. Korea Land & Housing Corp.	55,865	48.8	Yes	No	No	No	Real Estate
2. Korea Housing Finance Corp.	42,216	36.9	Yes	No	No	No	Financial
3. Korea Deposit Insurance Corp.	36,090	31.5	Yes	No	No	No	Insurance
4. Korea Finance Corp.	35,390	30.9	Yes	No	No	No	Financial
5. Industrial Bank of Korea	28,152	24.6	Yes	No	Yes	No	Bank
6. KDB Daewoo Securities	27,584	24.1	Yes	No	Yes	No	Securities
7. Korea Electric Power Corp.	27,120	23.7	Yes	No	Yes	No	Utility
8. Woori Investment and Securities	23,287	20.3	Yes	No	Yes	No	Securities
9. Korea Investment and Securities	20,089	17.5	No	Yes	No	No	Securities
10. Kookmin Bank	19,540	17.1	No	Yes	No	No	Bank
11. Korea Expressway Corp.	19,290	16.8	Yes	No	No	No	Infrastructure
12. Shinhan Bank	19,047	16.6	No	Yes	No	No	Bank
13. Mirae Asset Securities	17,075	14.9	No	Yes	Yes	No	Securities
14. Woori Bank	16,082	14.0	Yes	No	No	No	Bank
15. Tong Yang Securities	16,078	14.0	No	Yes	Yes	No	Securities
16. Small & Medium Business Corp.	15,038	13.1	Yes	No	No	No	Financial
17. Korea Rail Network Authority	13,270	11.6	Yes	No	No	No	Infrastructure
18. Korea Gas Corp.	12,665	11.1	Yes	No	Yes	No	Utility
19. Hana Bank	12,614	11.0	No	Yes	No	No	Bank
20. Hyundai Securities	10,646	9.3	No	Yes	Yes	No	Securities
21. Hana Daetoo Securities	10,477	9.1	No	Yes	No	No	Securities
22. Standard Chartered First Bank Korea	9,330	8.1	No	Yes	No	No	Bank
23. Korea Water Resources	9,254	8.1	Yes	No	Yes	No	Utility
24. Korea Eximbank	9,030	7.9	Yes	No	No	No	Bank
25. Shinhan Card	8,700	7.6	No	Yes	No	No	Financial
26. Shinhan Investment Corp.	8,567	7.5	No	Yes	No	No	Securities
27. Hyundai Capital Services	7,508	6.6	No	Yes	No	No	Securities
28. Shinhan Financial Group	7,490	6.5	No	Yes	Yes	No	Financial
29. Korea Railroad Corp.	7,440	6.5	Yes	No	No	No	Infrastructure
30. Nonghyup Bank	7,300	6.4	Yes	No	No	No	Bank
Total Top 30 LCY Corporate Issuers	**552,233**	**482.1**					
Total LCY Corporate Bonds	**890,301**	**777.3**					
Top 30 as % of Total LCY Corporate Bonds	**62.0%**	**62.0%**					

KOSPI = Korea Composite Stock Price Index, KOSDAQ = Korean Securities Dealers Automated Quotations, LCY = local currency.
Source: *AsianBondsOnline*, Bloomberg LP, and EDAILY *BondWeb*.

Meanwhile, the turnover ratio for LCY corporate bonds slipped to 0.16 in 2Q12 from 0.18 in 1Q12, as the turnover ratio for financial debentures fell to 0.32 in 2Q12 from 0.36 in 1Q12, while that for private corporate bonds decreased to 0.07 in 2Q12 from 0.09 in 1Q12. On the other hand, the turnover ratio for special public bonds inched up to 1.06 in 2Q12 from 0.95 in 1Q12.

Figure 2: Trading Volume of KTB Futures Contracts, 1Q11–2Q12 (%)



KTB = Korea Treasury Bond.
Source: Korea Exchange.

Investor Profile

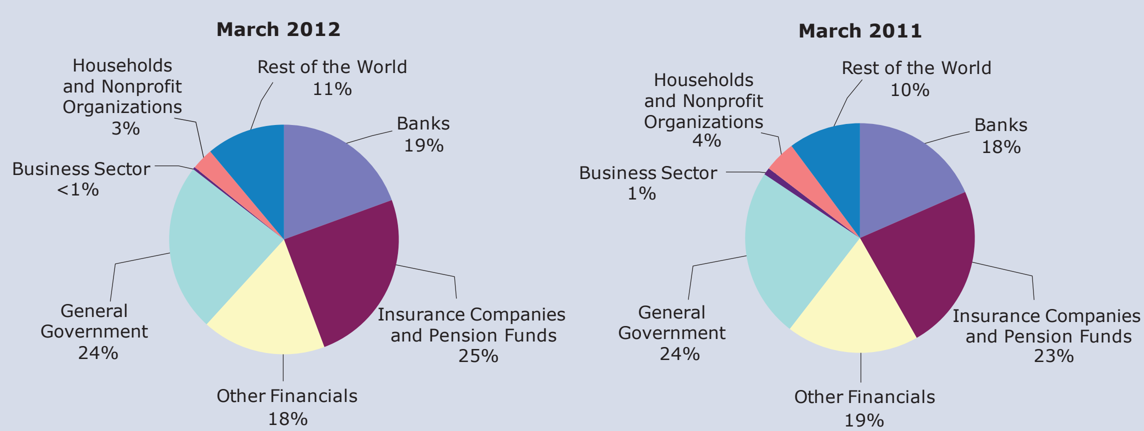
Insurance companies and pension funds were the largest investor group in LCY government bonds in 1Q12, holding 25% of total government bonds at end-March **(Figure 3)**. They were followed by the general government—consisting of the central government, local governments, and social security funds—which held 24% of the total. Banks and other financial companies posted shares of 19% and 18%, respectively, while foreign investors held 11%. Compared with a year earlier, the share of insurance companies and pension funds increased 2 percentage points, while the shares of banks and foreign investors climbed 1 percentage point each. In contrast, a 1 percentage point fall was evident in the shares of other financial companies, and households and nonprofit organizations.

The largest investor group in LCY corporate bonds at end-March was insurance companies and pension funds, which held 33% of total corporate bonds **(Figure 4)**. Financial companies other than banks, insurance companies, and pension funds were the next largest holders at 29%, followed by banks (18%), the general government (12%), households and nonprofit organizations (5%), non-financial companies (2%), and foreign investors (1%). Compared with end-March 2011, the shares of insurance companies and pension funds, non-financial companies, and foreign investors climbed 1 percentage point each, while that of households and nonprofit organizations rose 2 percentage points. In contrast, the share of banks dropped 4 percentage points and the share of other financial companies declined 1 percentage point.

Rating Changes

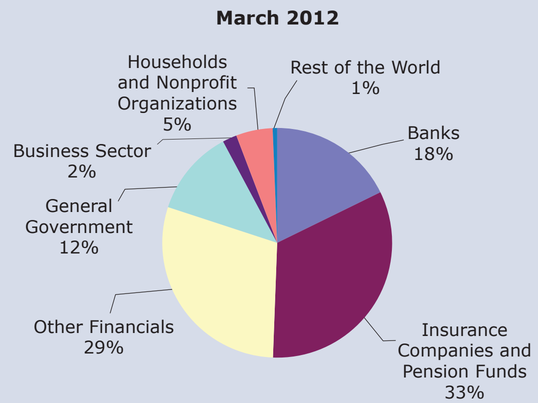
Rating and Investment Information, Inc. (R&I) announced in April that it had affirmed the Republic of Korea's foreign currency (FCY) and LCY issuer ratings at A+ and AA–, respectively, and that the

Figure 3: LCY Government Bonds Investor Profile



LCY = local currency.
Source: *AsianBondsOnline* and The Bank of Korea.

Figure 4: LCY Corporate Bonds Investor Profile



LCY = local currency.
Source: *AsianBondsOnline* and The Bank of Korea.

Table 3: Selected Sovereign Ratings and Outlook for the Republic of Korea

	Moody's	S&P	Fitch	R&I
Sovereign FCY LT Ratings	Aa3	A	AA–	A+
Outlook	Stable	Stable	Stable	Stable

FCY = foreign currency, LT = long term.
Source: Rating agencies.

outlook for both ratings was stable **(Table 3)**. R&I reported that the country has "sound fiscal conditions," a stable financial system, and a "sustained current account surplus." Moody's Investor Service (Moody's) stated in August that it upgraded the country's government bond rating to Aa3 from A1 due to its strong fiscal fundamentals, reduced banking sector vulnerability, and high degree of competitiveness and economic resilience.

Policy, Institutional, and Regulatory Developments

Regulation on Corporate Bond Underwriting Amended

According to the Financial Supervisory Service (FSS), the regulation on underwriting corporate bonds was amended in April to require lead arrangers to conduct due diligence on corporate bond issuers and carry out demand forecasting in order to determine investors' level of demand and desired pricing for the bond.

MOSF Reports Economic Policy for 2H12

The Ministry of Strategy and Finance (MOSF) reported in June that the economic policies of the Republic of Korea in the second half of the year would focus on minimizing the adverse effects of the global economic crisis on the domestic economy, conducting economic reforms, and supporting the working class. MOSF mentioned seven important tasks for the government to pursue, including (i) dealing with global financial turmoil effectively, (ii) continuing with fiscal stimulus by raising budgetary spending and providing supplementary budgets, (iii) establishing a facility investment fund to support such investment, (iv) keeping consumer price inflation at or near 2.0%, (v) generating 400,000 jobs within the year, (vi) promoting microfinance and housing support programs, and (vii) nurturing certain sectors as future growth engines.

FSC Forms Task Force for Legislation of Covered Bond Act

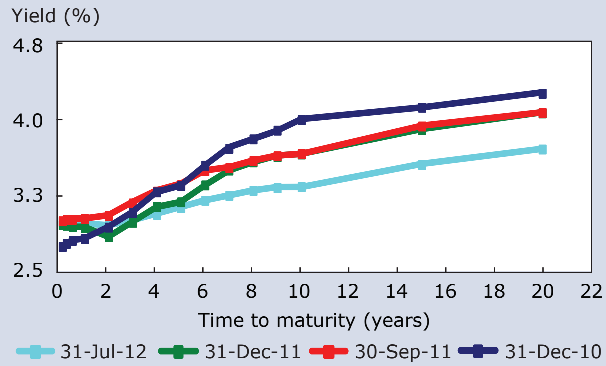
In July, the Financial Services Commission (FSC) formed a task force that will help legislate the Covered Bond Act and thereby encourage banks to issue covered bonds. The FSC has reported that with the legislation of the Covered Bond Act, issuance of covered bonds will help banks lower their funding costs. The FSC expects that the draft bill will be submitted to the National Assembly for approval in November.

Malaysia—Update

Yield Movements

The yield curve for Malaysian local currency (LCY) government bonds flattened in the first half of the year, as yields rose at the shorter-end and fell at the belly and longer-end of the curve **(Figure 1)**. Moderated by easing inflation amid concerns over the impact of the European debt crisis, yields at the shorter-end rose between 2 basis points (bps) and 11 bps between end-December 2011 and end-July 2012. On the other hand, yields for 4- and 5-year maturities fell 8 bps and 6 bps, respectively, while yields between the 6- and 20-year maturities posted double digit declines of 15 bps–35 bps. The yield spread between the 2- and 10-year maturities narrowed to 39 bps at end-July from 82 bps at end-December.

Figure 1: Malaysia's Benchmark Yield Curve—LCY Government Bonds



LCY = local currency.
Source: Bloomberg LP.

Bank Negara Malaysia (BNM) decided to keep its overnight policy rate steady at 3.0% at its Monetary Policy Committee meeting on 5 July. BNM has kept its rate at this level since May 2011. According to BNM, Malaysia's domestic consumption and investment activity remain resilient, while inflation is expected to remain moderate during the remainder of the year. BNM forecasts inflation to average 2%–3% for the full-year 2012.

Malaysia's consumer price inflation eased to 1.6% year-on-year (y-o-y) in June from 1.7% in May and 2.2% in April. Inflation during the first half of the year was 2.0% y-o-y, compared with 3.0% in the same period in 2011.

Malaysia's economy has remained resilient in 2012, supported largely by domestic demand. Growth in Malaysia's real gross domestic product (GDP) slowed to 4.7% y-o-y in 1Q12 from a revised 5.2% growth rate in 4Q11. Domestic demand growth remained firm at 9.6% y-o-y in 1Q12, supported by an increase in private consumption of 7.4%, which was up slightly from 7.3% growth in 4Q11. Meanwhile, public consumption grew 5.9% y-o-y in 1Q12, after registering 22.9% growth in 4Q11. Growth in gross fixed capital formation accelerated to 16.1% y-o-y in 1Q12 versus 8.4% in the previous quarter.

On the supply side, the agriculture and manufacturing sectors posted lower growth rates of 2.1% and 4.2% y-o-y, respectively, in 1Q12, compared with growth of 6.9% and 5.2% in the previous quarter. The services sector grew 5.0% in 1Q12, compared with 6.6% in 4Q11. The mining sector grew 0.3% in 1Q12 in a reversal of the 3.8% decline in 4Q11, and the construction sector posted robust 15.5% growth following an expansion of 7.5% in the previous quarter.

Size and Composition

Malaysia's bond market continues to post double digit growth rates, with total LCY bonds outstanding rising 15.0% y-o-y to MYR934.2 billion (US$294.0 billion) at end-June after posting 18.7% growth at end-March **(Table 1)**. LCY government and corporate bonds both posted strong growth at 15.3% and 14.6% y-o-y, respectively, in 2Q12. On a quarter-on-quarter (q-o-q) basis, total LCY bonds outstanding grew 9.1% in 1Q12 and 2.3% in 2Q12.

Growth in LCY government bonds eased slightly to 15.3% y-o-y in 2Q12 after posting a 20.0%

Table 1: Size and Composition of the LCY Bond Market in Malaysia

	Amount (billion)								Growth Rate (%)						
	Mar-12		Apr-12		May-12		Jun-12		Mar-12		Apr-12	May-12	Jun-12		
	MYR	US$	MYR	US$	MYR	US$	MYR	US$	y-o-y	q-o-q	m-o-m	m-o-m	y-o-y	q-o-q	m-o-m
Total	913	298	916	302	929	293	934	294	18.7	9.1	0.2	1.5	15.0	2.3	0.6
Government	550	179	553	183	565	178	559	176	20.0	9.6	0.5	2.1	15.3	1.6	(1.0)
Central Government Bonds and Bills	408	133	413	136	420	132	417	131	13.5	6.0	1.2	1.8	10.9	2.3	(0.7)
Central Bank Bills	142	46	140	46	145	46	142	45	44.4	21.5	(1.5)	3.1	31.2	(0.3)	(1.7)
Corporate	363	119	363	120	364	115	375	118	16.9	8.5	(0.2)	0.4	14.6	3.2	3.0

m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.

Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–US$ rate is used.
3. Growth rates are calculated from LCY base and do not include currency effects.
4. All government bonds, previously under the category "Others," have matured as of end-February 2012. "Others" refers to Khazanah Bonds issued by Khazanah Nasional Bhd. and Cagamas Bonds and Notes, Bithaman Ajil Islamic Securities, Sanadat ABBA Cagamas, and Sanadat Mudharabah Cagamas issued by Cagamas Bhd.

Source: Bank Negara Malaysia Fully Automated System for Issuing/Tendering (FAST) and Bloomberg LP.

increase in 1Q12. Total LCY government bonds outstanding stood at MYR559 billion at end-June. Central government bills and bonds rose 10.9% y-o-y at end-June, slightly lower than the 13.5% growth recorded at end-March. Meanwhile, outstanding central bank bill growth increased 31.2% y-o-y in 2Q12 after surging 44.4% in 1Q12. On a q-o-q basis, total LCY government bonds outstanding rose 1.6% in 2Q12.

Total LCY government bond issuance increased 8.4% during the first half of 2012 to reach MYR235 billion, up from MYR216.7 billion in the same period last year. Issuance of government bonds—Malaysian Government Securities (MGSs) and Government Investment Issues (GIIs)—rose 1.0% and 1.9% y-o-y in 1Q12 and 2Q12, respectively. Meanwhile, issuance of central bank bills rose 29.0% y-o-y in 1Q12, but fell 8.5% y-o-y in 2Q12.

Outstanding LCY corporate bonds rose 14.6% y-o-y at end-March and 17.4% y-o-y at end-June. On a q-o-q basis, total LCY corporate bonds outstanding rose 8.5% and 3.2% in 1Q12 and 2Q12, respectively. The first half of 2012 saw a surge in issuance of corporate bonds, particularly *sukuk* (Islamic bonds). Issuance of Islamic medium-term notes (IMTNs) reached MYR50.6 billion during the first 6 months of 2012, up from the MYR40.4 billion of IMTN issuance in all of 2011. Issuance of IMTNs has been rapidly increasing since 2005 **(Table 2)**.

Among the notable *sukuk* issues during the first half of 2012 was toll expressway operator Projek Lebuhraya Utara Selatan Bhd.'s (PLUS) MYR30.6 billion worth of IMTNs, the world's largest *sukuk* issuance to date **(Table 3)**. In addition, Sarawak Energy raised a total of MYR2.5 billion from the sale of 10- and 15-year *sukuk* in recent months, telecommunications company Maxis Bhd. sold MYR2.5 billion worth of 10-year *sukuk* in February, and electricity producer Tanjung Bin Energy Bhd. raised MYR3.3 billion from the multi-tranche sale of *sukuk* in March. More recently, Encorp Systembilt raised MYR1.6 billion from the sale of multi-tranche *sukuk* in May.

Table 2: Issuance of Corporate LCY Bonds, 2005–1H12
(MYR billion)

Year	BONDS	IBONDS	MTNs	IMTNs
2005	1.88	7.04	2.18	4.81
2006	8.16	6.80	4.56	12.12
2007	5.60	13.13	11.70	29.24
2008	18.57	9.40	11.57	13.98
2009	9.65	5.96	16.58	26.33
2010	5.25	3.67	15.24	26.47
2011	9.99	4.67	14.07	40.43
1H12	4.33	3.43	7.39	50.57

BONDS = conventional corporate bonds, IBONDS = Islamic bonds,
IMTNs = Islamic medium-term notes, MTNs = medium-term notes.
Source: Bank Negara Malaysia.

Table 3: Notable Corporate Issues in 1H12

Corporate Issuer	Instrument	Amount (MYR billion)
Projek Lebuhraya Utara Selatan (PLUS) Bhd.	IMTNs	30.60
Tanjung Bin Energy	IMTNs	3.29
Johor Corp	IMTNs	3.00
Sarawak Energy	IMTNs	2.50
Perbadanan Tabung Pendidikan Tinggi Nasional (PTPTN)	IMTNs	2.50
Maxis Bhd.	IMTNs	2.45
Maybank	BONDS	2.10
Genting Capital	MTNs	2.00
Encorp Systembilt	IBONDS	1.58
Hong Leong Bank	BONDS	1.50
Pembinaan BLT (Aman Sukuk)	IMTNs	1.35
Malaysian Airlines	IBONDS	1.00

BONDS = conventional corporate bonds, IBONDS = Islamic bonds,
IMTNs = Islamic medium-term notes, MTNs = medium-term notes.
Source: Bank Negara Malaysia.

Malaysian Airlines sold an initial tranche—worth MYR1 billion—of its perpetual junior *sukuk*, the world's first perpetual *sukuk*, to Kumpulan Wang Persaraan Retirement Fund Inc.

Several state-owned companies also issued *sukuk* during the first 6 months of the year. In April, construction company Pembinaan BLT, which is owned by the Ministry of Finance, issued MYR1.4 billion in a multi-tranche sale. The *sukuk*, issued through a special purpose vehicle, Aman Sukuk Bhd., are part of the construction company's MYR10 billion IMTN Programme under the *musharakah* (joint venture) concept. Johor Corp. raised MYR3 billion from the sale of IMTNs issued under the *wakalah billsthithmar* (investment through agent) principle. These *sukuk* are irrevocable and unconditionally guaranteed by the Malaysian government. Finally, Perbadanan Tabung Pendidikan Tinggi Nasional (Malaysia's National Higher Education Corporation) issued MYR2.5 billion worth of 10-year *sukuk* under the principle of *murahaba* (cost-plus financing).

Meanwhile, a number of conventional bonds were issued by banks and financial institutions in the first half of the year. Malayan Bank (Maybank) raised MYR2.1 billion from the issuance of 12-year subordinated debt, while Hong Leong Bank raised MYR1.5 billion from the sale of 12-year senior subordinated notes. Genting Capital raised MYR2 billion from the sale of 10- and 5-year medium-term notes (MTNs). The issue is covered by an irrevocable and fully unconditional guarantee of the parent company.

As of end-June, the top 30 issuers in Malaysia accounted for 56.9% of total LCY corporate bonds outstanding. With the issuance of its MYR30.6 billion multi-tranche *sukuk*, PLUS became the largest issuer of LCY corporate bonds, followed by Cagamas Bhd., Khazanah Nasional, and Binariang GSM, with outstanding amounts of MYR19.2 billion, MYR13.2 billion, and MYR11.3 billion, respectively **(Table 4)**.

Investor Profile

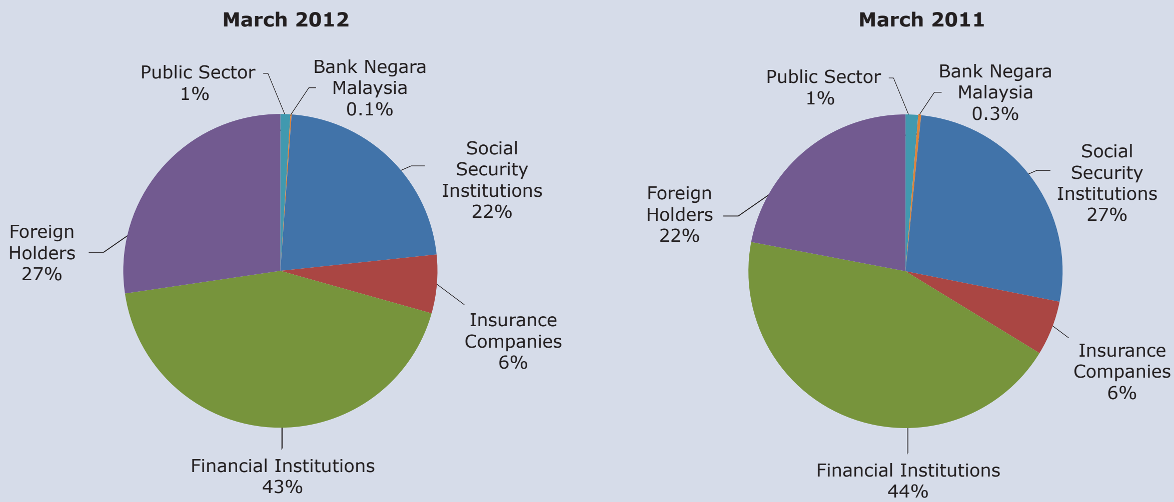
As of end-March, financial institutions were the largest holders of MGSs and GIIs, with 43% of total outstanding government bonds, followed by foreign investors and social security institutions, which held 27 and 22%, respectively **(Figure 2)**. Insurance companies comprised 6% of the total. The share of government bonds held by foreign investors continued its gradual rise to 27% at end-March, up from 26% at end-December 2011 and 25% at end-September 2011.

Table 4: Top 30 Issuers of LCY Corporate Bonds in Malaysia (as of end-June 2012)

Issuers	Outstanding Amount (MYR billion)					State-Owned	Privately-Owned	Listed Company	Type of Industry
	BONDS	IBONDS	MTNs	IMTNs	TOTAL				
1. Project Lebuhraya				30.60	30.60	No	Yes	Yes	Transport, Storage, and Comm.
2. Cagamas			9.52	9.65	19.17	Yes	No	No	Finance
3. Khazanah		13.20			13.20	Yes	No	No	Quasi-Govt. and Other
4. Binariang GSM		3.02		8.28	11.30	No	Yes	No	Transport, Storage, and Comm.
5. Maybank	9.70	1.50			11.20	No	Yes	Yes	Finance
6. Pengurusan Air Bhd.				11.08	11.08	Yes	No	No	Energy, Gas, and Water
7. Prasarana	2.91	2.00		4.00	8.91	Yes	No	No	Finance
8. Malakoff Corp		1.70		5.60	7.30	No	Yes	No	Finance
9. CIMB Bank	7.00				7.00	No	Yes	No	Finance
10. Public Bank	1.20		4.87		6.07	No	Yes	Yes	Finance
11. Senai Desaru Expressway Bhd.				5.58	5.58	No	Yes	No	Construction
12. Sarawak Energy				5.50	5.50	Yes	No	Yes	Energy, Gas, and Water
13. KL International Airport	1.60	3.76			5.36	Yes	No	No	Transport, Storage, and Comm.
14. Johor Corp		2.15		3.00	5.15	Yes	No	No	Quasi-Govt. and Other
15. 1Malaysia Development Bhd.				5.00	5.00	Yes	No	No	Finance
16. Hong Leong Bank	3.70		1.16		4.86	No	Yes	Yes	Finance
17. Manjung Island Energy Bhd.				4.85	4.85	No	Yes	No	Energy, Gas, and Water
18. AM Bank	0.49		4.28		4.77	No	Yes	Yes	Finance
19. RHB Bank	0.60		4.00		4.60	No	Yes	No	Finance
20. Putrajaya Holdings		0.50		3.88	4.38	No	Yes	No	Finance
21. Jimah Energy Ventures				4.32	4.32	No	Yes	No	Energy, Gas, and Water
22. Celcom Transmission				4.20	4.20	No	Yes	No	Transport, Storage, and Comm.
23. Bank Pembangunan Malaysia	0.90		2.40	0.90	4.20	Yes	No	No	Finance
24. Rantau Abang Capital Bhd.				3.80	3.80	No	Yes	No	Quasi-Govt. and Other
25. Aman Sukuk Bhd.				3.62	3.62	Yes	No	No	Construction
26. Danga Capital				3.60	3.60	Yes	No	No	Finance
27. YTL Power International			3.54		3.54	No	Yes	Yes	Energy, Gas, and Water
28. Tanjung Bin				3.53	3.53	No	Yes	No	Energy, Gas, and Water
29. Cekap Mentari	3.50				3.50	No	Yes	Yes	Finance
30. Tanjung Bin Energy				3.29	3.29	No	Yes	No	Energy, Gas, and Water
Total Top 30 LCY Corporate Issuers	**31.60**	**27.82**	**29.77**	**124.26**	**213.46**				
Total LCY Corporate Bonds	**61.52**	**60.58**	**59.75**	**172.10**	**375.21**				
Top 30 as % of Total LCY Corporate Bonds	**51.4%**	**45.9%**	**49.8%**	**72.2%**	**56.9%**				

BONDS = conventional corporate bonds, IBONDS = Islamic bonds, IMTNs = Islamic medium-term notes, LCY = local currency, MTNs = medium-term notes.
Source: Bank Negara Malaysia Fully Automated System for Issuing/Tendering (FAST).

Figure 2: Malaysian LCY Government Bonds Investor Profile



LCY = local currency.
Source: Bank Negara Malaysia.

Rating Changes

In August, international credit rating agency Standard & Poor's (S&P) affirmed Malaysia's A-/A-2 foreign currency (FCY) credit rating and A/A-1 LCY credit rating, citing the country's strong external liquidity position, competitive middle-income economy, and high savings rate **(Table 5)**.

Fitch Ratings also affirmed Malaysia's long-term FCY and LCY issuer default ratings at A- and A, respectively, with a stable outlook for both ratings. According to Fitch, the affirmation of the ratings and stable outlooks reflect Malaysia's macroeconomic stability and strong net external creditor position. However, Fitch also cited the deterioration of public debt ratios and structural weaknesses in Malaysia's public finances as weighing on its credit profile.

Table 5: Selected Sovereign Ratings and Outlook for Malaysia

	Moody's	S&P	Fitch	R&I
Sovereign FCY LT Ratings	A3	A–	A–	A
Outlook	Stable	Stable	Stable	Stable

FCY = foreign currency, LT = long-term.
Source: Rating agencies.

Policy, Institutional, and Regulatory Developments

BNM Announces Renminbi Settlement Services

BNM announced that Renminbi Settlement Services (RSS) would be included in its Real-Time Electronic Transfer of Funds and Settlement System (RENTAS), effective 21 March. Bank of China (Malaysia) Bhd. has been appointed as the onshore settlement institution for the RSS, which is expected to provide greater efficiency and competitiveness in trade settlement, facilitate bilateral trade between Malaysia and the People's Republic of China (PRC), and provide a natural hedge against the fluctuations and volatility of other currencies to eliminate settlement risk for renminbi transactions.

BNM, Euroclear, and HKMA Unveil Pilot Program for Cross-Border Bond Transactions

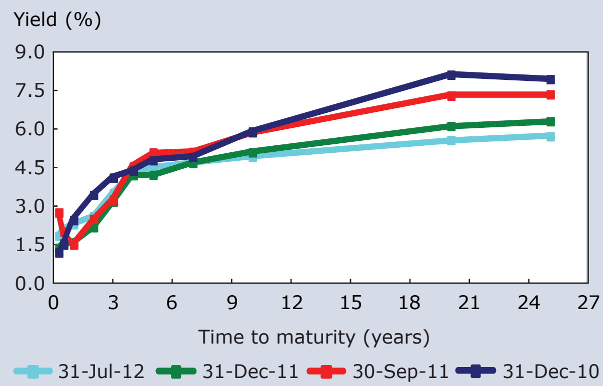
BNM, Euroclear Bank, and the Hong Kong Monetary Authority (HKMA) announced the launch of a pilot platform in March. The platform, which became operational on 30 March, allows investors in Hong Kong, China and Malaysia to buy and hold foreign debt securities, and settle cross-border transactions on a delivery-versus-payment basis. According to BNM and HKMA's joint press release, the platform is intended to facilitate the harmonization of market practices and standardization of the issuance and settlement of debt securities in order to deepen Asian bond market liquidity, attract investment, and increase operational efficiency. The pilot platform will optimize existing system links between HKMA's Central Moneymarkets Unit (CMU), BNM's RENTAS, and Euroclear, as well as strengthen the connections between local central securities depositories and FCY real-time gross settlement systems. It will also contain a comprehensive Asian debt securities database maintained by Euroclear. The new infrastructure is expected to strengthen cross-border issuance of local bonds in Hong Kong, China and Malaysia, and the rollout of the platform will provide investors and market intermediaries with efficient and cost effective cross-border access to the Hong Kong, China and Malaysian bond markets.

Philippines—Update

Yield Movements

The Philippine government bond yield curve flattened between end-December 2011 and end-July 2012 as the positive outlook on the country's fiscal and economic fundamentals fueled aggressive buying. Liquidity was primarily centered on longer-dated tenors, causing these yields to fall, while investor appetite for short- and medium-term notes waned. Yields for tenors between 10 years and 25 years dropped between 17 basis points (bps) and 59 bps from end-December to end-July. Meanwhile, yields for all other tenors rose between 1 bp and 71 bps. Yields for treasury bills and bonds maturing within the next 2 years rose the most, climbing between 43 bps and 71 bps. Yields for maturities of 3 years–7 years increased between 1 bp and 34 bps. Yield spreads between 2- and 10-year notes tightened to 230 bps at end-July from 291 bps at end-December **(Figure 1)**.

Figure 1: Philippines' Benchmark Yield Curve—LCY Government Bonds



LCY = local currency.
Source: Bloomberg LP.

The Philippine economy performed strongly in 1H12, with its gross domestic product (GDP) posting 6.1% year-on-year (y-o-y) growth following a lackluster 3.7% performance in full-year 2011. The country's GDP expanded 6.3% and 5.9% y-o-y in 1Q12 and 2Q12, respectively. 1Q12 GDP growth was buoyed by the combined effects of higher exports, accelerated spending, and robust household consumption, while 2Q12 was boosted by the resilient services sector, strong exports, and domestic consumption. Export growth for 1H12 climbed 7.7% y-o-y to US$26.8 billion, including a sharp 19.7% rise in May. Personal remittances from overseas Filipinos reached US$11.3 billion in 1H12, which translated to 5.3% y-o-y growth. In June, Bangko Sentral ng Pilipinas (BSP) began recording personal remittances in line with the International Monetary Fund's balance of payment (BOP) calculation methodology.

Inflation rose to a 7-month high of 3.8% y-o-y in August, following July's 3.2% and readings below 3.0% in May and June, bringing year-to-date (YTD) headline inflation to 3.2%, which is at the lower bound of the government's full-year forecast of 3%–5%. However, core inflation, which excludes some food and energy items, remained at an elevated level of 4.3% y-o-y in August, translating into YTD core inflation of 3.7%.

With core inflation posing a risk to BSP's inflation target, GDP growing rapidly in 1Q12, and two policy rate cuts already this year (January and March), most economists believed that BSP would pause from instituting additional monetary stimulus measures at its July monetary meeting. However, BSP surprisingly cut its policy rates by 25 bps, pushing them to new record lows. The overnight borrowing (reverse repurchase) and lending (repurchase) rates were lowered to 3.75% and 5.75%, respectively. In addition, BSP recently lowered the rates it pays on special deposit accounts (SDAs) by 1/32 of a percentage point and tightened its rules relating to the use of this facility. (See **Policy, Institutional, and Regulatory Developments** for more details).

Size and Composition

LCY bonds outstanding grew 12.4% y-o-y and 2.9% quarter-on-quarter (q-o-q) to reach PHP3.7 trillion (US$87 billion) at end-June. Growth in treasury and corporate bonds led the robust expansion. Fixed-Rate Treasury Notes (FXTNs) stood at

Table 1: Size and Composition of the LCY Bond Market in the Philippines

	Amount (billion)								Growth Rate (%)						
	Mar-12		Apr-12		May-12		Jun-12		Mar-12		Apr-12	May-12	Jun-12		
	PHP	US$	PHP	US$	PHP	US$	PHP	US$	y-o-y	q-o-q	m-o-m	m-o-m	y-o-y	q-o-q	m-o-m
Total	3,562	83	3,595	85	3,621	83	3,667	87	12.8	4.3	0.9	0.7	12.4	2.9	1.3
Government	3,118	73	3,122	74	3,138	72	3,172	75	13.2	4.9	0.1	0.5	11.5	1.7	1.1
Treasury Bills	268	6	258	6	261	6	255	6	(33.0)	(1.6)	(3.7)	1.2	(33.1)	(4.7)	(2.2)
Treasury Bonds	2,724	63	2,737	65	2,753	63	2,793	66	21.8	5.5	0.5	0.6	19.0	2.5	1.4
Others	127	3	127	3	124	3	124	3	6.0	7.8	0.0	(2.4)	6.4	(2.4)	0.0
Corporate	444	10	473	11	483	11	495	12	10.4	0.2	6.5	2.1	18.7	11.5	2.5

LCY = local currency, m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.

Notes:

1. Calculated using data from national sources.
2. Bloomberg end-of-period LCY–US$ rates are used.
3. Growth rates are calculated from LCY base and do not include currency effects.
4. "Others" includes bonds issued by government agencies, instrumentalities, and corporations with which repayment was guaranteed by the National Government. These include issues of Power Sector Assets and Liabilities Management (PSALM), National Food Authority, and others.
5. Peso Global Bonds (PHP-denominated bonds but payable in US$) and multi-currency Retail Treasury Bonds are not included. As of 30 June 2012, the Government of the Philippines and Petron Corporation have an outstanding PHP98.9 billion and PHP20.0 billion of Peso Global Bonds, respectively. The National government also has an outstanding PHP21.8 billion of multi-currency Retail Treasury Bonds.

Source: Philippine Bureau of the Treasury and Bloomberg LP.

PHP2.8 trillion in the first half of 2012 on a slow ascent of 2.5% q-o-q. Corporate bonds reached PHP495 billion, an impressive 11.5% q-o-q increase. On the other hand, treasury bills declined 4.7% q-o-q to PHP255 billion **(Table 1)**.

Government Bond Market Development. Treasury bonds outstanding grew 19.0% y-o-y in 2Q12 and corporate bonds grew 18.7%. Increased government expenditure encouraged private companies to expand their businesses and raise additional capital in private markets. Meanwhile, treasury bills contracted 33.1% y-o-y.

In the first half of 2012, the Bureau of the Treasury (BTr) issued a total of PHP404 billion worth of treasury bills and bonds. Treasury bonds comprised 69% of total issuance (PHP278.6 billion), while bills accounted for the remaining 31% (PHP125.4 billion). In March, BTr completed another record-breaking sale of Retail Treasury Bonds (RTBs), totaling almost PHP180 billion, with longer-dated maturities of 15 and 20 years. In addition to the RTB sale, BTr also sold PHP27.1 billion of 7-year notes, PHP18.0 billion of 10-year notes, and another PHP9.0 billion of 20-year bonds in 1Q12. A total of almost PHP37 billion of treasury bills was sold in1Q12.

In 2Q12, BTr issued PHP44.5 billion of treasury bonds and PHP88.4 billion of treasury bills. The treasury bonds issued have maturities of 5 years (PHP18.0 billion), 7 years (PHP10.9 billion), 10 years (PHP9.0 billion), and 20 years (PHP6.7 billion).

BTr is set to auction a total of PHP45 billion of treasury bills and PHP63 billion of treasury bonds in 3Q12. Treasury bonds for offer have tenors of 5, 7, 10, 20, and 25 years. As of 10 August 2012, PHP21.3 billion and PHP27.0 billion have been raised from the sale of treasury bills and bonds, respectively.

Corporate Bond Market Development. A total of PHP93.5 billion of new LCY corporate bonds were printed during the first half of 2012. Of this total, roughly PHP74 billion worth were issued in 2Q12, resulting in an 11.5% q-o-q jump in corporate bond issuance. Banks tapped the bond market to improve their capitalization and liquidity ratios in advance of the adoption of Basel III regulations on 1 January 2014. Other LCY corporate bonds issuers were real estate and telecommunications firms, tollway operators, and a brewery **(Table 2)**.

In July, SM Investments Corporation sold PHP15 billion of senior unsecured bonds: PHP6.3 billion at 7 years and a 6.0% coupon rate, and PHP8.7 billion at 10 years and a 6.9442% coupon rate. In August, First Metro Investment Corporation sold PHP7 billion of callable retail bonds with maturities of 5 years and 3 months, and 7 years.

Total LCY corporate bonds outstanding in the Philippines reached PHP495 billion at end-June. San Miguel Brewery Inc. remained the top corporate issuer with PHP45.2 billion worth of outstanding bonds **(Table 3)**. The next largest borrowers in the bond market in 2Q12 were (i) BDO Unibank Inc. with PHP38.0 billion of debt, (ii) Ayala Corporation with PHP36.0 billion, (iii) Ayala Land Inc. with PHP30.5 billion, and (iv) Philippine National Bank with PHP27.9 billion.

Among the top 30 bond issuers, 25 companies were publicly listed on the Philippine Stock Exchange. The five unlisted companies among the top 30 corporate issuers were (i) MTD Manila Expressway Corporation, (ii) South Luzon Tollway Corporation, (iii) Manila North Tollways Corporation, (iv) Tanduay Distillers Inc., and (v) Philippine Phosphate Fertilizer Corporation.

Fifteen out of the top 30 issuers have bonds listed with the Philippine Dealing and Exchange Corporation (PDEx), the sole fixed-income exchange in the country. The Power Sector Assets and Liabilities Management Corporation (PSALM) has PHP30 billion worth of bonds listed with PDEx; however, *AsianBondsOnline* classifies these as government bonds.

Banking and financial service institutions remained the dominant issuers of bonds in 2Q12, accounting for 33% of the total market **(Figure 2)**. This was down from 36% in 4Q11. Real estate companies accounted for 18% of the total, up from 13%

Table 2: Selected Issuance in 1H12

	Issue Date	Amount		Coupon Rate (%)	Bond Type
		PHP (billion)	US$ (billion)		
April–June 2012					
San Miguel Brewery	02-Apr-12	20.00	0.47		Senior Unsecured
PHP3 billion 6.05% due 2017					
PHP10 billion 5.93% due 2019					
PHP7 billion 6.6% due 2022					
Ayala Land Inc.	27-Apr-12	15.00	0.36		Senior Unsecured
PHP9.35 billion 5.625% due 2019					
PHP5.65 billion 6.0% due 2022					
South Luzon Tollway Corporation	10-Apr-12	11.00	0.26		Secured
Variable rate due 2017					
Ayala Corporation	11-May-12	10.00	0.24	6.875	Senior Unsecured
Globe Telecom Inc.	01-Jun-12	10.00	0.24		Senior Unsecured
PHP4.5 billion 5.75% due 2017					
PHP5.5 billion 6.00% due 2019					
Filinvest Land Inc.	08-Jun-12	7.00	0.17	6.2731	Senior Unsecured
SM Development Corporation	27-Apr-12	6.31	0.15	6.0096	Senior Unsecured
January–March 2012					
Philippine Savings Bank	20-Feb-12	3.00	0.07	5.75	Tier 2 Notes
MTD Manila Expressways	15-Mar-12	11.50	0.27	8.6615	Secured
Development Bank of the Philippines	22-Mar-12	5.65	0.13	5.75	Tier 2 Notes

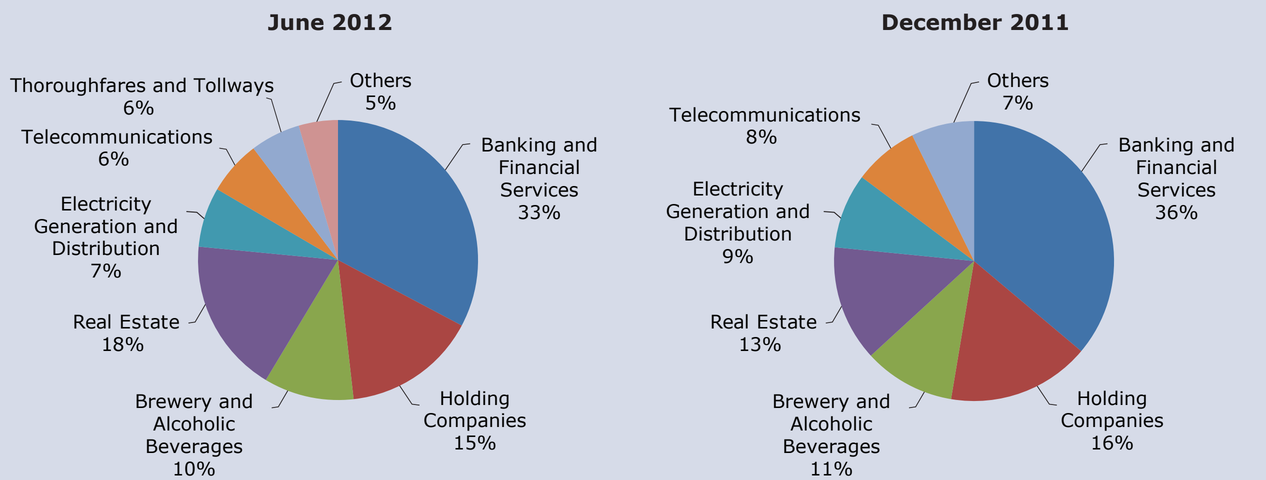
Source: Bloomberg LP.

Table 3: Top 30 Issuers of LCY Corporate Bonds in the Philippines (as of end-June 2012)

Issuers	Outstanding Amount		State-Owned	Privately-Owned	Listed Company	Type of Industry
	LCY Bonds (PHP billion)	LCY Bonds (US$ billion)				
1. San Miguel Brewery Inc.	45.21	1.07	No	Yes	Yes	Brewery
2. BDO Unibank Inc.	38.00	0.90	No	Yes	Yes	Banking
3. Ayala Corporation	36.00	0.85	No	Yes	Yes	Diversified Operations
4. Ayala Land Inc.	30.51	0.72	No	Yes	Yes	Real Estate
5. Philippine National Bank	27.85	0.66	No	Yes	Yes	Banking
6. SM Investments Corporation	21.10	0.50	No	Yes	Yes	Diversified Operations
7. Rizal Commercial Banking Corporation	21.00	0.50	No	Yes	Yes	Banking
8. Manila Electric Company	19.38	0.46	No	Yes	Yes	Electricity Distribution
9. Metropolitan Bank & Trust Co.	18.50	0.44	No	Yes	Yes	Banking
10. Philippine Long Distance Telephone Co.	17.50	0.42	No	Yes	Yes	Telecommunications
11. SM Development Corporation	16.31	0.39	No	Yes	Yes	Real Estate
12. Filinvest Land, Inc.	15.00	0.36	No	Yes	Yes	Real Estate
13. Petron Corporation	13.60	0.32	No	Yes	Yes	Oil Refining and Marketing
14. JG Summit Holdings, Inc.	13.31	0.32	No	Yes	Yes	Diversified Operations
15. Robinsons Land Corporation	12.00	0.28	No	Yes	Yes	Real Estate
16. Energy Development Corporation	12.00	0.28	No	Yes	Yes	Electricity Generation
17. MTD Manila Expressway Corporation	11.50	0.27	No	Yes	No	Transport Services
18. South Luzon Tollway Corporation	11.00	0.26	No	Yes	No	Transport Services
19. Globe Telecom Inc.	10.92	0.26	No	Yes	Yes	Telecommunications
20. Security Bank Corporation	8.00	0.19	No	Yes	Yes	Banking
21. Allied Banking Corporation	8.00	0.19	No	Yes	Yes	Banking
22. United Coconut Planters Bank	7.67	0.18	No	Yes	Yes	Banking
23. Megaworld Corporation	6.38	0.15	No	Yes	Yes	Real Estate
24. Manila North Tollways Corporation	6.15	0.15	No	Yes	No	Public Thoroughfares
25. Tanduay Distillers Inc.	5.00	0.12	No	Yes	No	Alcoholic Beverages
26. SM Prime Holdings Inc.	5.00	0.12	No	Yes	Yes	Real Estate Management Services
27. First Metro Investment Corporation	5.00	0.12	No	Yes	Yes	Investment Banking
28. China Banking Corporation	5.00	0.12	No	Yes	Yes	Banking
29. Bank of the Philippine Islands	5.00	0.12	No	Yes	Yes	Banking
30. Philippine Phosphate Fertilizer Corporation	4.50	0.11	No	Yes	No	Agricultural Chemicals
Total Top 30 LCY Corporate Issuers	**451.88**	**10.72**				
Total LCY Corporate Bonds	**495.00**	**11.75**				
Top 30 as % of Total LCY Corporate Bonds	**91.3%**	**91.3%**				

LCY = local currency.
Note: Petron Corporation has an outstanding PHP20 billion peso global bonds that are not included in this statistics.
Source: Bloomberg LP.

Figure 2: LCY Corporate Bond Issuers by Industry



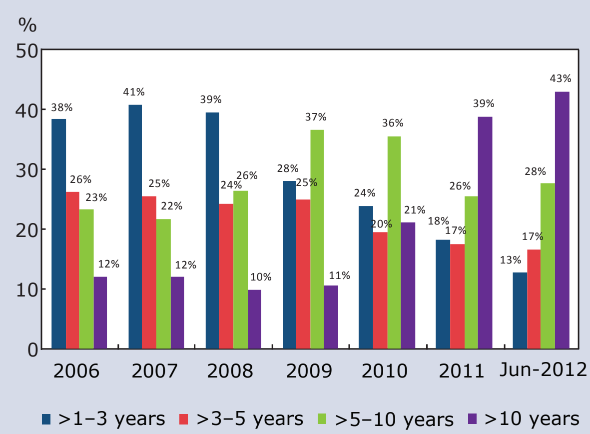
LCY = local currency.
Source: Bloomberg LP.

in 4Q11. Holding companies' share represented 15% of the total, slightly down from 16% in 4Q11. Brewery and alcoholic beverage companies comprised 10% of the total in 2Q12, down marginally from 11%. The share of companies operating tollways and expressways rose to 6% in 2Q12 from zero in 2011. The growing share of real estate companies and operators of expressways and tollways reflected the effects of the government's resumption of public works and infrastructure expenditure in the first half of the year.

Government and Corporate Bond Maturity Profiles. The growing confidence of domestic investors in the Philippines has given the government the ability to execute its debt consolidation and lengthening strategy. The share of FXTNs with maturities of more than 1 year to 3 years dropped to 12.7% in June from 18.3% in December 2011, while the share of FXTNs with maturities of more than 3 years to 5 years increased to 17.4% from 16.6%. On the other hand, the share of FXTNs with maturities of more than 5 years to 10 years grew to 27.7% from 25.5%, while the share of FXTNs with maturity terms of more than 10 years rose to almost 43% in June from 38.8% in December 2011 **(Figure 3)**.

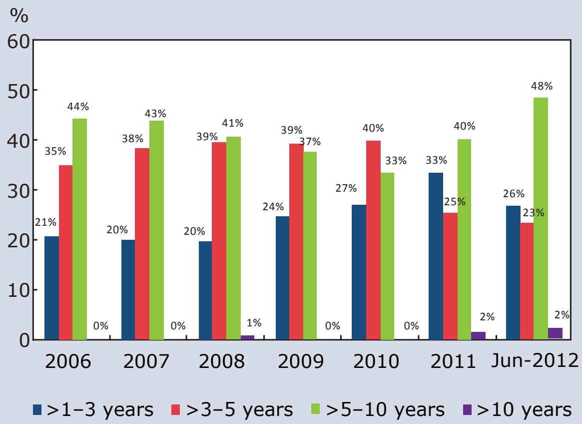
Corporate issuers also have been able to sell longer-dated bonds, albeit in smaller amounts than the government. Bonds with maturities of more than 10 years re-emerged in the market last year after a long hiatus, although they comprise only a 2% share of the total corporate bond market. Prior to 2006, corporate bond issuers rarely offered bonds with maturities beyond 5 years and never more than 10 years. Moreover, the proportion of bonds maturing within 5 years–10 years reached new highs in June, accounting for 48% of total corporate bonds outstanding. Meanwhile, the share of bonds maturing within 3 years–5 years shrank to 23% in June from 35% in 2006. Corporate issues with

Figure 3: Historical Government Bond Maturity Profile, 2006–2012



Note: Bills and bonds maturing in 1 year or less are excluded in the calculation of the bond maturity profile.
Source: *AsianBondsOnline*.

Figure 4: Historical Corporate Bond Maturity Profile, 2006–2012



Note: Bills and bonds maturing in 1 year or less are excluded in the calculation of the bond maturity profile.
Source: *AsianBondsOnline*.

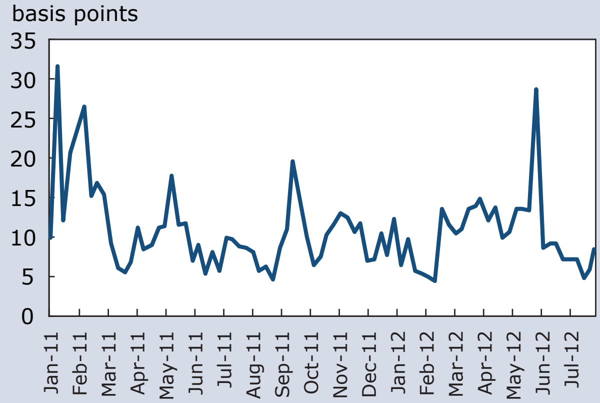
tenors between 1 year and 3 years have consistently accounted for about 25% of the total market **(Figure 4)**.

Benchmark Government Securities Bid–Ask Spreads

Bid–ask spreads for the most traded government securities (GS) between 7 January 2011 and 31 July 2012 are presented in **Figure 5**. Treasury bonds with the highest outstanding sizes—and with daily or frequently available bid–ask (two-way) quotes—were analyzed in order to monitor liquidity in the LCY secondary market. The data used to capture the bid–ask spreads for these securities were obtained from the Bloomberg pages of money brokers operating in the Philippines.

Between 15 March and 1 June, average bid–ask spreads widened from 11 bps to a high of 29 bps on 1 June. The mean spread during this period was 13.8 bps. Risk aversion prevailed among LCY market participants on the back of negative news of a possible Greek exit from the eurozone and a slowdown in the People's Republic of China's (PRC) economy. After 1 June, average bid–ask spreads returned to single digits, with a mean spread of 7.2 bps, as positive domestic developments overshadowed the negative overhang from foreign markets. Among the positive information points

Figure 5: Weekly Average Bid–Ask Spreads for the Most Active Government Securities, 7 January 2011–31 July 2012



Note: The following were included among the monitored government securities: (i) FXTN 5-67, (ii) FXTN 7-48, (iii) FXTN 10-42, (iv) FXTN 7-49, (v) FXTN 7-51, (vi) FXTN 7-53, (vii) RTB 10-2, (viii) FXTN 10-53, (ix) RTB 10-3, (x) FXTN 10-54, (xi) RTB15-1, (xii) RTB15-2, (xiii) FXTN 20-17, (xiv) RTB 20-1, and (xv) FXTN 25-8.
Source: *AsianBondsOnline*.

that encouraged investors' risk appetite were (i) stable or declining inflation, (ii) the long-term foreign currency (FCY) sovereign credit rating upgrade by Standard & Poor's (S&P), and (iii) monetary easing by BSP.

From 15 March to 31 July, the bonds posting the tightest bid–ask spreads were FXTN 20-17 (1.7 bps), RTB 20-1 (3.8 bps), FXTN 25-8 (5.3 bps), RTB 10-3 (7.8 bps), FXTN 10-53 (7.8 bps), and FXTN 10-54 (9.0 bps).

Investor Profile

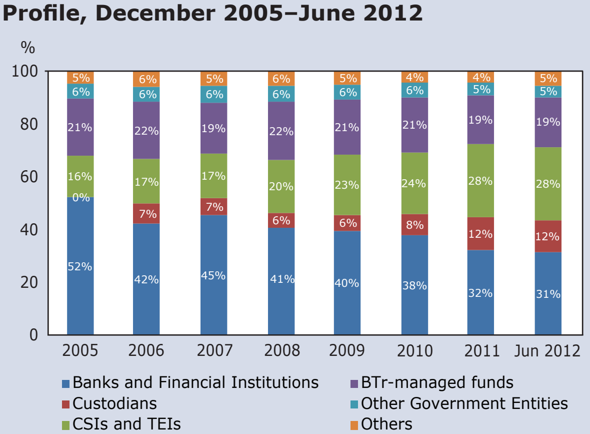
Major investors in GS in 2Q12 included (i) banks and other financial institutions, (ii) BTr-managed funds, (iii) contractual savings and tax-exempt institutions (TEIs), (iv) custodians, (v) other government entities such as government-owned and -controlled corporations (GOCCs), and (vi) various corporate and individual investors. The category of banks and other financial institutions comprise institutions supervised by BSP. The BTr-managed funds consist of the Bond Sinking Fund (BSF), Securities Stabilization Fund (SSF), and the Special Guaranty Fund (SGF). Contractual savings institutions (CSIs) and TEIs include government pension and insurance funds (e.g., Government Service Insurance System [GSIS], Social Security System [SSS], and Philippine Health Insurance Corp. [PHIC]), private insurance companies, and tax exempt funds and corporations.

Custodians are not primary bond investors. Instead, they are BSP-accredited securities custodians designated to perform safekeeping, administration, and monitoring of investments for their clients. BSP Circular 524 of 2006 requires the delivery of securities by the seller to the purchaser or his designated BSP-accredited custodian. The inception of third-party custodians has made it difficult for BTr to identify the ultimate holders of its bonds, particularly foreign investors.

Investor diversity in the LCY government bond market changed significantly between 2005 and 2012 **(Figure 6)**. The share of banks and financial institutions declined to 31% of total bonds outstanding in 2Q12 from 52% in 2005, while the BTr's managed funds' share of the total fell to 19% from 21%. A notable trend has been the growing shares of CSIs and TEIs, and custodians. CSIs and TEIs comprised 28% of the total in 2Q12, up from only 16% in 2005. In LCY terms, these investors' GS holdings grew from PHP332 billion in 2005 to PHP840 billion in 2Q12, a 153% increase. Currently, CSI investors are segmented from real-time price action in the secondary market due to limitations in security transfers between taxable and tax exempt investors, and prohibitions in the corporate charters of government CSIs.

The share of custodians' holdings of total GS outstanding swelled to 12% in 2Q12 from 7% in 2006. In LCY terms, GS under the safekeeping of custodians stood at PHP368 billion at end-June.

Figure 6: LCY Government Bonds Investor Profile, December 2005–June 2012



CSIs = contractual savings institutions, LCY = local currency, TEIs = tax-exempt institutions.
Note: For purpose of investor profile presentation only, LCY government bonds are defined as domestic bonds, which include multi-currency (US$ and EUR) retail bonds totaling almost PHP21 billion as of end-June 2012.
Source: Bureau of the Treasury.

Rating Changes

On 29 May, Moody's Investors Service (Moody's) raised its outlook on the Philippines' sovereign credit rating from stable to positive **(Table 4)**. Moody's maintained its credit rating for the country at Ba2, or two notches below investment grade. The rating agency noted the government's continued prudent fiscal management as evidenced by a low budget deficit (compared with its economic peers) and a steadily declining debt-to-GDP ratio resulting from improved revenue collections and controlled spending. Moody's also noted, however, that deeper structural reforms in revenue mobilization, accelerated investment spending, and a sustained low debt-to-GDP ratio are needed for a ratings upgrade.

On 4 July, S&P upgraded the Philippines' long-term FCY sovereign credit rating to BB+ from BB, the highest long-term FCY rating the country has received since 2003. S&P also affirmed the Philippines' long-term LCY sovereign rating of BB+. The outlooks on both ratings are stable. S&P noted the country's increased fiscal flexibility, improved government debt profile, and reduced interest burden as the primary basis for the upgrade.

Table 4: Selected Sovereign Ratings and Outlooks for the Philippines

	Moody's	S&P	Fitch
Sovereign FCY LT Rating	Ba2	BB+	BB+
Outlook	Positive	Stable	Stable

FCY = foreign currency, LT = long-term.
Source: Rating agencies.

Policy, Institutional, and Regulatory Developments

BSP Adopts Stricter Compliance Rules for Banks

In May, BSP adopted global practices for good corporate governance based on the Basel Committee on Banking Supervision's Principles for Enhancing Corporate Governance. These guidelines emphasize the need for the Board of Directors of banks to enhance their ability to exercise objective judgment and ensure a system of checks and balances. The 34-page circular (including appendices) imposed the following guidelines:

(i) The Board of Directors should have a sufficient number of non-executive members. Non-executive members are those who are not involved in the day-to-day management of banking operations.

(ii) The minimum composition of independent directors was raised from two to at least 20% of the Board of Directors' membership (not less than two). Furthermore, independent directors will have term limits of 10 years: a period of 5 consecutive years extendable for another 5 years following a 2-year hiatus.

(iii) The Chief Executive Officer and Chief Financial Officer and/or Treasurer are prohibited from participating on the audit committee.

(iv) Non-executive board members are required to conduct regular meetings with the external auditor and heads of the internal audit, compliance, and risk management functions.

The guidelines also covered the appointment and reporting line of a Chief Risk Officer. The performance ratings of the Chief Risk Officer should be confirmed by the Board of Directors and any replacement for this position should be reported to BSP.

The approved guidelines are the first of a three-part analysis of corporate governance, which will be followed by further reports governing internal controls and risk management. The three-part governance package is expected to be completed this year.

BSP Defers Implementation of PFRS 9 Financial Instruments to 1 January 2015

In July, BSP deferred the mandatory effectivity date of Philippine Financial Reporting Standards (PFRS) 9 Financial Instruments to 1 January 2015 from 1 January 2013. BSP said the deferment is in line with the issuance by the International Accounting Standards Board (IASB) of further amendments to International Financial Reporting Standards (IFRS) 9, as well as its local adoption by the Financial Reporting Standards Council in December 2011. IFRS 9 Financial Instruments is the first phase of a three-phased improvement project by the IASB to replace IAS 39 Financial Instruments: Recognition and Measurement. Phases 2 and 3 of the project are ongoing and deal with impairment and hedge accounting.

BSP Cuts SDA Rates and Tightens Rules

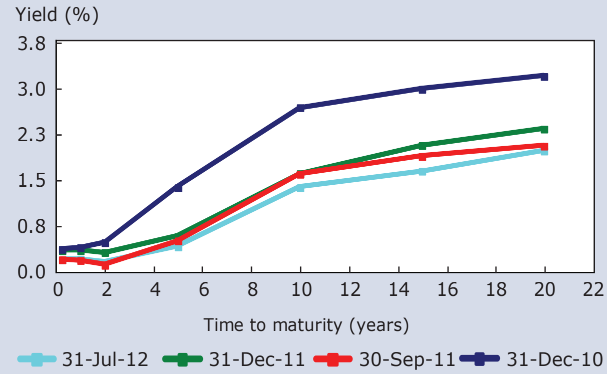
BSP cut its SDA rates by 1/32 of a percentage point effective 13 July. SDAs are fixed-term deposits made by banks and trust entities with the BSP. This deposit facility was introduced in November 1998 to expand BSP's toolkit for liquidity management after the central bank was stripped of its power to issue bills and bonds under its revised charter. In April 2007, BSP expanded access to the SDA facility to allow the trust entities of financial institutions under BSP supervision to make deposits. After the BSP lowered its SDA rate and cut its policy rates last month, the 7-day SDA rate had been reduced to 3.78125% from 4.0625%, the 14-day SDA rate to 3.84375% from 4.125%, and the 32-day SDA rate to 3.90625% from 4.1875%. Based on data from BSP, SDA deposits stood at PHP1.64 trillion as of 22 June. BSP also tightened the rules on the use of the SDA by requiring banks and trust entities to certify that funds invested in the facility did not come from foreign investors or entities. This rule was issued to curb currency speculation.

Singapore—Update

Yield Movements

The yield curve for local currency (LCY) government bonds in Singapore fell across all maturities between end-December 2011 and end-July 2012. As consumer price inflation eased slightly during the first half of the year, yields fell for all tenors **(Figure 1)**. Yields fell between 14 basis points (bps) and 17 bps at the very short-end and the belly of the curve. Meanwhile, yields for the 10-, 15-, and 20-year maturities fell by 23 bps, 42 bps, and 36 bps, respectively. The yield curve flattened slightly in July, with the spread between the 2- and 10-year maturities falling to 122 bps at end-July from 129 bps at end-December.

Figure 1: Singapore's Benchmark Yield Curve–LCY Government Bonds



LCY = local currency.
Source: Bloomberg LP.

Consumer price inflation during the first 6 months of the year was 5.1% year-on-year (y-o-y), slightly lower than the 5.2% posted for the full-year 2011. At the start of 2012, Singapore's consumer price inflation eased to 4.8% and 4.6% y-o-y in January and February, respectively. It subsequently rose to 5.2% in March and 5.4% in April before easing to 5.0% in May. In June, consumer price inflation rose to 5.3%, mainly due to higher housing costs.

In April, the Monetary Authority of Singapore (MAS) said that external inflationary pressures will likely persist due to higher oil prices. MAS announced that it will (i) continue with its policy of a modest and gradual appreciation of the Singapore dollar, (ii) slightly increase the slope of the policy band of the nominal effective exchange rate (S$NEER), and (iii) restore a narrower policy band. More recently, MAS revised its consumer price inflation forecast for 2012 to 4.0%–4.5% from 3.5%–4.5%, on expectations that costs for housing rentals and certificate of entitlement (COE) premiums will remain high. In July, MAS announced to Parliament that it is considering issuing inflation-linked bonds as one measure to ease the burden of inflationary pressures on investors. The possible issuance of inflation-linked bonds is expected to help retail investors preserve their savings in light of prevailing interest rates that are near zero.

Singapore's gross domestic product (GDP) registered 2.0% y-o-y growth in 2Q12, higher than the 1.5% growth posted in 1Q12. The manufacturing sector grew 4.5% y-o-y in 2Q12 after contracting 0.8% in 1Q12. The construction sector expanded 5.3% and the services sector grew 0.8% in 2Q12. On a quarter-on-quarter (q-o-q) seasonally-adjusted and annualized basis, however, Singapore's GDP fell 0.7% in 2Q12, largely due to declines in electronics manufacturing, wholesale trade, and tourism-related services.

Singapore's Ministry of Trade and Industry (MTI) narrowed its 2012 GDP growth forecast from 1.0%–3.0% to 1.5%–2.5%, as the slowdown in advanced economies is expected to affect externally-oriented sectors. Global uncertainties are also expected to affect sentiment-sensitive segments within the finance and insurance sectors. Expansion in the transport engineering and construction sectors, however, may provide modest support to Singapore's economy.

Table 1. Size and Composition of the LCY Bond Market in Singapore

	Amount (billion)								Growth Rate (%)						
	Mar-12		Apr-12		May-12		Jun-12		Mar-12		Apr-12	May-12	Jun-12		
	SGD	US$	SGD	US$	SGD	US$	SGD	US$	y-o-y	q-o-q	m-o-m	m-o-m	y-o-y	q-o-q	m-o-m
Total	266	211	266	215	268	208	274	217	19.5	8.2	(0.1)	0.9	15.8	3.2	2.3
Government	162	129	159	129	161	125	164	130	21.4	5.4	(1.5)	1.1	14.1	1.5	1.9
Central Gov't Bonds and Bills	144	114	141	114	142	110	144	114	7.9	3.8	(2.1)	0.5	3.8	0.0	1.6
Central Bank Bills	18	14	19	15	20	15	20	16	–	20.0	3.3	5.4	277.8	13.3	4.1
Corporate	104	83	106	86	107	83	110	87	16.7	12.9	2.1	0.7	18.3	5.8	2.9

– = not applicable, LCY = local currency, m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Government bonds are calculated using data from national sources. Corporate bonds are based on *AsianBondsOnline* estimates.
2. Government bonds and bills does not include the special issue of Singapore Government Securities held by the Singapore Central Provident Fund (CPF).
3. Bloomberg LP end-of-period LCY–US$ rate is used.
4. Growth rates are calculated from LCY base and do not include currency effects.
Source: Monetary Authority of Singapore, Singapore Government Securities, and Bloomberg LP.

Size and Composition

LCY bonds outstanding continued to post double-digit growth in 2Q12, expanding 15.8% y-o-y to SGD274.2 billion (US$216.7 billion) at end-June **(Table 1)**. LCY government bonds outstanding rose 14.1% y-o-y in 2Q12, but this was largely due to outstanding MAS bills, which stood at SGD20.4 billion at end-June, almost four times the SGD5.4 billion outstanding at end-June 2011. Meanwhile, outstanding Singapore Government Securities (SGS) bills and bonds rose 3.8% y-o-y and were flat on a q-o-q basis at SGD143.8 billion.

Issuance of SGS bonds dropped 30.8% y-o-y and 30.8% q-o-q in 2Q12. During the first half of the year, SGS bond issuance was 12.9% lower than during the same period last year. On the other hand, issuance of SGS bills rose 10.6% y-o-y and 15.4% q-o-q in 2Q12. Meanwhile, issuance of MAS bills rose 342.3% y-o-y and 11.0% q-o-q.

Outstanding LCY corporate bonds continued to post robust growth in 2Q12, rising 18.3% y-o-y to SGD110 billion at end-June, after posting 16.7% growth in 1Q12. On a q-o-q basis, outstanding LCY corporate bonds rose 5.8% in 2Q12.

The first half of 2012 saw several issuances of perpetual LCY corporate bonds. In 1Q12, four corporates issued such bonds: (i) Genting Singapore (SGD1.8 billion), (ii) Mapletree Logistics (SGD350 million), (iii) Singapore Post (SGD350 million), and (iv) Olam International (SGD275 million). In 2Q12, Genting Singapore issued another SGD500 million worth of perpetual bonds, while Ascendas and Hotel Properties sold SGD300 million and SGD150 million of perpetual bonds, respectively.

The top 30 corporate issuers in Singapore, which mainly come from the financial and consumer sectors, accounted for 52.2% of total LCY corporate bonds outstanding at end-June **(Table 2)**. The Housing and Development Board remained the biggest issuer with SGD11.5 billion of outstanding bonds at the end of 2Q12, followed by CapitaLand and DBS Bank with outstanding amounts of SGD4.9 billion and SGD4 billion, respectively.

Table 2: Top 30 Issuers of LCY Corporate Bonds in Singapore (as of end-June 2012)

Issuers	Outstanding Amount		State-Owned	Privately-Owned	Listed Company	Type of Industry
	LCY Bonds (SGD billion)	LCY Bonds (US$ billion)				
1. Housing and Development Board	11.5	9.1	Yes	No	No	Financial
2. CapitaLand	4.9	3.9	No	Yes	Yes	Financial
3. DBS Bank Singapore	4.0	3.2	No	Yes	Yes	Financial
4. Temasek Financial I	3.6	2.8	No	Yes	No	Financial
5. United Overseas Bank	3.3	2.6	No	Yes	Yes	Financial
6. Genting Singapore PLC	2.3	1.8	No	Yes	No	Industrial
7. Land Transport Authority	2.3	1.8	Yes	No	No	Industrial
8. Public Utilities Board	2.1	1.7	Yes	No	No	Utilities
9. Land Transport Authority	2.1	1.9	Yes	No	No	Industrial
10. Oversea-Chinese Bank	2.0	1.6	No	Yes	Yes	Financial
11. GLL IHT PTE	1.4	1.1	No	Yes	No	Financial
12. Keppel Land	1.4	1.1	No	Yes	Yes	Financial
13. Temasek Financial III	1.3	1.0	No	Yes	No	Financial
14. Keppel Corp	1.2	0.9	No	Yes	Yes	Industrial
15. Overseas Union Enterprise	1.1	0.9	No	Yes	Yes	Consumer
16. City Developments	1.1	0.9	No	Yes	Yes	Consumer
17. PSA Corporation	1.0	0.8	No	Yes	No	Consumer
18. Neptune Orient Lines	1.0	0.8	No	Yes	Yes	Industrial
19. F&N Treasury	1.0	0.8	No	Yes	No	Financial
20. Hyflux	0.9	0.7	No	Yes	Yes	Industrial
21. Capitamall Trust	0.9	0.7	No	Yes	Yes	Financial
22. Olam International	0.9	0.7	No	Yes	Yes	Consumer
23. Capitaland Treasury	0.9	0.7	No	Yes	No	Financial
24. Singtel Group Treasury	0.9	0.7	No	Yes	No	Communications
25. Singapore Post	0.9	0.7	Yes	No	No	Industrial
26. Singapore Airlines	0.8	0.6	No	Yes	No	Communications
27. Global Logistic Properties	0.8	0.6	No	Yes	Yes	Diversified
28. Mapletree Treasury	0.7	0.6	No	Yes	No	Diversified
29. Capitaland Treasury	0.7	0.6	No	Yes	No	Financial
30. Sembcorp Financial Services	0.7	0.6	No	Yes	No	Industrial
Total Top 30 LCY Corporate Issuers	**57.4**	**45.4**				
Total LCY Corporate Bonds	**110.0**	**86.9**				
Top 30 as % of Total LCY Corporate Bonds	**52.2%**	**52.2%**				

LCY = local currency.
Source: Bloomberg LP.

Policy, Institutional, and Regulatory Developments

MAS Announces Initiatives to Develop Singapore's Capital Markets

In March, MAS Managing Director Ravi Menon announced three initiatives to improve efficiency and liquidity in Singapore's LCY debt market:

(i) Provide swap liquidity to primary dealer banks handling SGD-denominated debt issuances for foreign companies. MAS will support swap transactions at market-determined prices to facilitate swap market liquidity among the longer-dated tenors.

(ii) Partner with the industry in the creation of a lending platform for SGD-denominated corporate debt securities on which market players will be allowed to borrow securities for market-making.

(iii) Initiate a price discovery platform that will be targeted for completion by the second half of the year. This platform, which aims to improve transparency in the corporate bond market and provide reliable mark-to-market prices, will allow market participants to contribute end-of-day prices for a universe of SGD-denominated corporate bonds.

SGX Introduces Dual Currency Trading

In March, Singapore Exchange (SGX) introduced dual currency trading that enables the trading of listed securities in two different currencies. Dual-currency listed shares will be consolidated in investors' central depository accounts. The introduction of dual currency trading is aimed at improving cost efficiency by allowing investors to trade foreign currency-denominated securities in their respective LCY.

MAS Revises Requirements Governing Marketing and Sale of Listed and Unlisted Investment Products

In May, MAS announced that effective 1 October the prescribed list of Excluded Investment Products (EIPs) would be revised to include EIP-equivalent investment products listed on foreign exchanges, certain Collective Investment Schemes (CIS), and sub-funds of investment-linked life insurance policies. Currently, all CIS are classified as Special Investment Products (SIPs). By October, MAS will classify a CIS as an EIP if its investment mandate (i) permits investments only in EIPs and (ii) prohibits it from engaging in securities lending or repurchase transactions.

SGX Ready to Trade Renminbi-Denominated Securities

In July, SGX announced that it was ready to list, quote, trade, clear, and settle renminbi-denominated securities, which will complement the offshore renminbi bonds listed on the exchange. Also, SGX is the first exchange to offer the clearing of over-the-counter (OTC) foreign exchange forwards for renminbi. Issuers listing renminbi-denominated securities on SGX can also choose to offer dual-currency trading. This would allow investors the flexibility to trade the securities in either renminbi or Singapore dollars.

MAS Sets Up Contingent Liquidity Facility

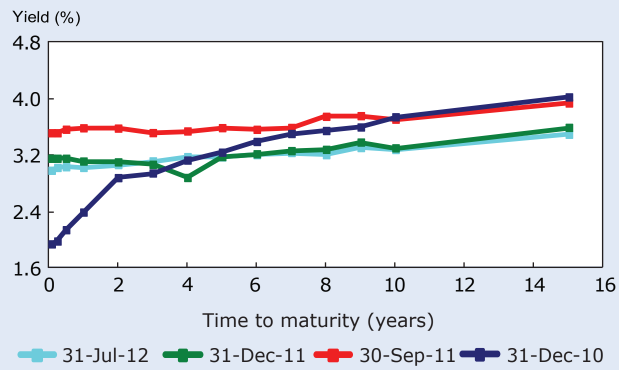
MAS announced in its annual report released last July that it has entered into an agreement with the Singapore Deposit Insurance Corporation Limited (SDIC) through which MAS will offer a contingent liquidity facility of up to SGD20 billion in the event of a banking crisis. The agreement was signed in February; as of 31 March, no request had been made on the facility.

Thailand—Update

Yield Movements

Thailand's government bond yields dropped for all maturities, except the 3- and 4-year tenors, between end-December 2011 and end-July 2012, amid market concerns over the eurozone's fiscal and banking problems **(Figure 1)**. Meanwhile, the yield spread between the 2- and 10-year tenors climbed 1.5 basis points (bps) between end-December and end-July.

Figure 1: Thailand's Benchmark Yield Curve—LCY Government Bonds



LCY = local currency.
Source: Bloomberg LP.

The Bank of Thailand's (BOT) Monetary Policy Committee decided to maintain the 1-day repurchase rate at 3.0% at its 5 September meeting, the fifth consecutive time that the policy rate has remained unchanged. The committee noted that risks to the global economy remained elevated, yet the domestic economy continued its steady growth.

Consumer price inflation stood at 2.69% year-on-year (y-o-y) in August, compared with 2.73% in July. The price index for food and beverages rose 4.02% y-o-y in August, compared with a 5.42% hike in the previous month. Meanwhile, the price index for non-food and beverages climbed 1.84% y-o-y in August, compared with a 1.03% increase in July.

Real gross domestic product (GDP) grew 4.2% y-o-y in 2Q12, following a 0.4% rise in 1Q12. Private consumption expenditure rose 5.3% y-o-y after climbing 2.9% in the previous quarter. Gross fixed capital formation also expanded 10.2% y-o-y, following a 5.2% increase in 1Q12. Exports of goods and services rose 0.9% y-o-y in 2Q12, while the manufacturing sector grew 2.7%.

Size and Composition

Local currency (LCY) bonds outstanding in Thailand amounted to THB8 trillion (US$254 billion) at end-June, up 17.7% y-o-y and 4.1% quarter-on-quarter (q-o-q) **(Table 1)**. Total government bonds grew 17.9% y-o-y and 4.8% q-o-q to THB6.4 trillion, led by government bonds and treasury bills, which rose 17.3% y-o-y and 8.0% q-o-q to THB3.0 trillion, and central bank bonds, which increased 22.1% y-o-y and 1.7% q-o-q to reach THB3.0 trillion. Meanwhile, the stock of state-owned enterprise (SOE) bonds slipped 0.2% y-o-y, but rose 4.5% q-o-q to level off at THB481 billion.

Total government bond issuance in 2Q12 stood at THB2.3 trillion, down 18.8% y-o-y and 7.2% q-o-q. The drop was caused by a 24.6% y-o-y and 10.1% q-o-q decline in central bank bond issuance, which accounted for about 89% of total government bond issuance. In contrast, 2Q12 issuance in government bonds, treasury bills, and SOE bonds surged 110.9% y-o-y and 25.5% q-o-q to THB260 billion.

The outstanding amount of LCY corporate bonds at end-June was THB1.6 trillion, up 16.9% y-o-y and 1.6% q-o-q. Between May and June, the LCY corporate bond market contracted 2.5%. LCY corporate bond issuance in 1Q12

Table 1: Size and Composition of the LCY Bond Market in Thailand

	Amount (billion)								**Growth Rate** (%)						
	Mar-12		**Apr-12**		**May-12**		**Jun-12**		**Mar-12**		**Apr-12**	**May-12**	**Jun-12**		
	THB	**US$**	**THB**	**US$**	**THB**	**US$**	**THB**	**US$**	**y-o-y**	**q-o-q**	**m-o-m**	**m-o-m**	**y-o-y**	**q-o-q**	**m-o-m**
Total	7,709	250	7,944	259	7,989	251	8,027	254	13.1	8.4	3.0	0.6	17.7	4.1	0.5
Government	6,151	200	6,341	206	6,366	200	6,444	204	12.3	7.1	3.1	0.4	17.9	4.8	1.2
Government Bonds and Treasury Bills	2,777	90	2,897	94	2,940	92	3,000	95	9.1	5.7	4.3	1.5	17.3	8.0	2.0
Central Bank Bonds	2,913	94	2,985	97	2,960	93	2,963	94	19.0	10.3	2.5	(0.8)	22.1	1.7	0.1
State-Owned Enterprise Bonds	461	15	459	15	467	15	481	15	(4.5)	(2.9)	(0.3)	1.6	(0.2)	4.5	3.2
Corporate	1,558	51	1,603	52	1,623	51	1,583	50	16.5	14.0	2.9	1.2	16.9	1.6	(2.5)

LCY = local currency, m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg end-of-period LCY–US$ rates are used.
3. Growth rates are calculated from LCY base and do not include currency effects.
Source: Bank of Thailand (BOT) and Bloomberg LP.

and 2Q12 amounted to THB419 billion and THB282 billion, respectively, both higher than 4Q11's THB249 billion. The three largest LCY corporate bond issues in the first half of the year were (i) Siam Cement's 4-year senior unsecured bond issued in April worth THB25 billion with a coupon rate of 4.15%, (ii) Kasikorn Bank's 10-year subordinated bond of THB22 billion with a 4.5% coupon issued in February, and (iii) Siam Commercial Bank's 10-year subordinated bond issued in February worth THB20 billion with a 4.5% coupon.

The combined bonds outstanding of the top 30 corporate issuers at end-June were valued at THB962 billion, comprising 61% of total LCY corporate bonds outstanding **(Table 2)**. PTT and Siam Cement remained the two largest corporate issuers of LCY bonds.

Investor Profile

Contractual savings funds remained the largest holder of LCY government bonds in Thailand at end-June, accounting for 24% of the total, followed by insurance companies with a 20% share **(Figure 2)**. Compared with end-June 2011, the shares of the central bank, contractual savings funds, foreign investors, and non-financial market mutual funds increased, while shares fell for most other types of bondholders.

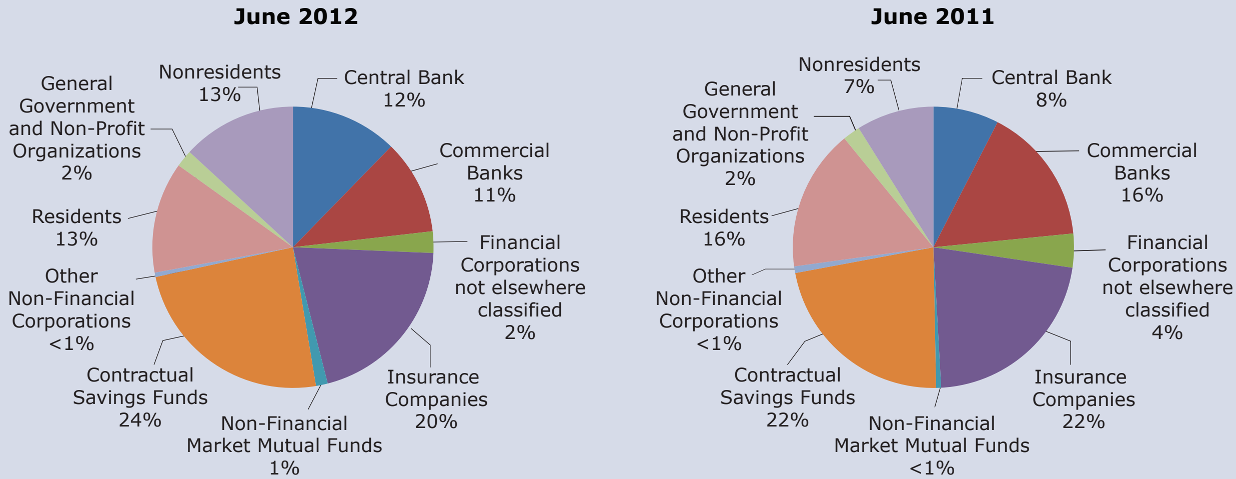
Individual retail investors were the largest investor group in LCY corporate bonds, holding 46% of the total at end-March **(Figure 3)**. This was followed by other investors—such as the government, cooperatives, and foundations—with a combined 15% share, contractual savings funds and mutual funds with a 10% share each, and insurance companies with 9%. Compared with end-March 2011, the share of other investors—such as the government, cooperatives, and foundations—had a relatively large increase, while the shares of most other types of corporate bondholders declined.

Table 2: Top 30 Issuers of LCY Corporate Bonds in Thailand (as of end-June 2012)

Issuers	Outstanding Amount		State-Owned	Privately-Owned	Listed Company	Type of Industry
	LCY Bonds (THB billion)	LCY Bonds (US$ billion)				
1. PTT Public Company	178.5	5.7	Yes	No	Yes	Energy
2. Siam Cement Public Company	115.0	3.6	Yes	No	Yes	Diversified
3. Kasikorn Bank	47.1	1.5	No	Yes	Yes	Financial
4. Charoen Pokphand Foods	46.0	1.5	No	Yes	Yes	Consumer
5. Siam Commercial Bank	40.0	1.3	No	Yes	Yes	Financial
6. Bank of Ayudhya	37.8	1.2	No	Yes	Yes	Financial
7. PTT Global Chemical	35.4	1.1	Yes	No	Yes	Basic Materials
8. Thai Airways International	32.2	1.0	Yes	No	Yes	Consumer
9. Thanachart Bank	30.1	1.0	No	Yes	no	Financial
10. PTT Exploration and Production Company	29.2	0.9	Yes	No	Yes	Energy
11. Thai Oil	27.8	0.9	Yes	No	Yes	Energy
12. TMB Bank	27.7	0.9	No	Yes	Yes	Financial
13. Banpu	25.3	0.8	No	Yes	Yes	Energy
14. Toyota Leasing Thailand	22.9	0.7	No	Yes	No	Consumer
15. Mitr Phol Sugar Corporation	22.7	0.7	No	Yes	No	Consumer
16. Krung Thai Card	22.5	0.7	Yes	No	Yes	Financial
17. Ayudhya Capital Auto Lease	22.3	0.7	No	Yes	No	Financial
18. Glow Energy	20.6	0.7	No	Yes	Yes	Utilities
19. Kiatnakin Bank	19.6	0.6	No	Yes	Yes	Financial
20. Quality Houses	18.0	0.6	No	Yes	Yes	Consumer
21. Indorama Ventures	16.9	0.5	No	Yes	Yes	Basic Materials
22. Bangkok Expressway	16.1	0.5	No	Yes	Yes	Consumer
23. True Corporation	16.1	0.5	No	Yes	Yes	Communications
24. Advanced Info Service	15.5	0.5	No	Yes	Yes	Communications
25. Land & Houses	15.5	0.5	No	Yes	Yes	Consumer
26. Tisco Bank	12.8	0.4	No	Yes	No	Financial
27. Central Pattana	12.2	0.4	No	Yes	Yes	Industrial
28. Minor International Public Company	12.2	0.4	No	Yes	Yes	Consumer
29. Bangkok Mass Transit System	12.0	0.4	Yes	Yes	No	Industrial
30. Italian-Thai Development Public Company	12.0	0.4	No	Yes	Yes	Industrial
Total Top 30 LCY Corporate Issuers	**961.8**	**30.5**				
Total LCY Corporate Bonds	**1,583.0**	**50.5**				
Top 30 as % of Total LCY Corporate Bonds	**60.8**	**60.8**				

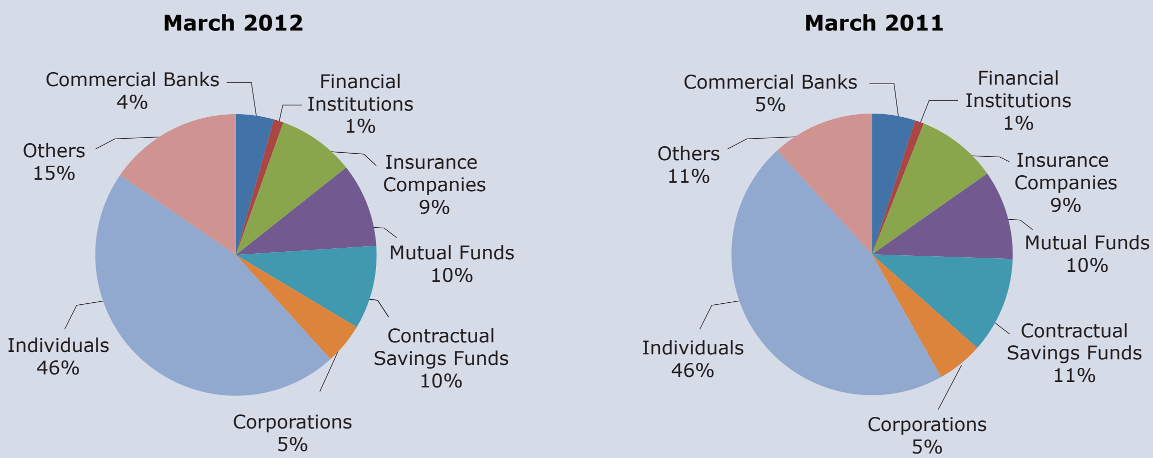
LCY = local currency.
Source: Bloomberg LP.

Figure 2: LCY Government Bonds Investor Profile



LCY = local currency.
Note: Government bonds exclude central bank bonds and state-owned enterprise bonds.
Source: *AsianBondsOnline* and Bank of Thailand.

Figure 3: LCY Corporate Bonds Investor Profile



LCY = local currency.
Source: ThaiBMA.

Rating Changes

Rating and Investment Information, Inc. (R&I) reported in March that it affirmed Thailand's foreign currency (FCY) and LCY issuer ratings at BBB and BBB+, respectively, and that it was maintaining a stable rating outlook for both **(Table 3)**. R&I noted the country's rapid recovery from last year's flooding, its current account surplus, and solid fiscal management.

Table 3: Selected Sovereign Ratings and Outlook for Thailand

	Moody's	S&P	Fitch	R&I
Sovereign FCY LT Ratings	Baa1	BBB+	BBB	BBB
Outlook	Stable	Stable	Stable	Stable

FCY = foreign currency, LT = long-term.
Source: Rating agencies.

Policy, Institutional, and Regulatory Developments

BOT and MAS Sign Memorandum of Understanding on Cross-Border Collateral Arrangement

BOT announced in June that it had signed a memorandum of understanding with the Monetary Authority of Singapore (MAS) to enter into a cross-border collateral arrangement to help maintain financial stability in Thailand and Singapore. Under this arrangement, eligible financial institutions operating in Thailand may obtain Thai baht liquidity from BOT by pledging Singaporean dollars or Singaporean central bank and government securities. Eligible financial institutions operating in Singapore may acquire Singaporean dollar liquidity from MAS by pledging Thai baht or Thai central bank and government securities.

Ministry of Finance Gives Approval to Five Foreign Entities to Issue LCY Bonds

The Ministry of Finance announced in June that it had given approval to five foreign entities to sell LCY bonds in Thailand, totaling THB33 billion, between 1 May 2012 and 31 January 2013. The foreign entities and the allowable amount of their respective bond issuances are (i) International Bank for Reconstruction and Development (THB5 billion), (ii) International Finance Corporation (THB5 billion), (iii) Swedish Export Credit Corporation (THB5 billion), (iv) Korea Gas Corporation (THB8 billion), and (v) Kookmin Bank (THB10 billion).

SEC Allows Sale of Unrated Bonds to Accredited Investors

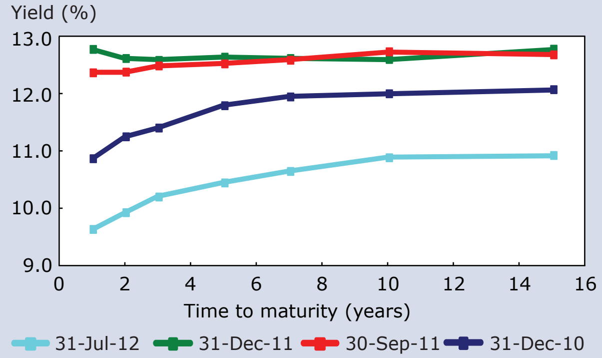
The Securities and Exchange Commission (SEC) decided in June to allow the sale of the following financial products to accredited investors such as institutional investors and high-net worth investors: (i) unrated bonds and (ii) non-retail mutual funds that invest in non-investment grade debt securities or in unrated bonds.

Viet Nam—Update

Yield Movements

Between end-December 2011 and end-July 2012, yields on Viet Nam's government bonds fell significantly across all tenors following a series of five interest rate cuts implemented by the State Bank of Viet Nam (SBV) in response to a steady decline in the inflation rate. The largest drop in the yield curve occurred for the 1-year tenor, which fell 394 basis points (bps) to 8.78% from 12.72% **(Figure 1)**. The yield curve assumed a more normal curvature by the middle of 2012, compared to its inverted shape at the end of 2011, as short-term interest rates fell more rapidly than long-term rates during the first half of the year.

Figure 1: Viet Nam's Benchmark Yield Curve—LCY Government Bonds



LCY = local currency.
Source: Bloomberg LP.

Viet Nam experienced lower growth in gross domestic product (GDP) in the first half of 2012, as the economy grew 4.4% year-on-year (y-o-y) compared with growth of 5.6% in 1H11. On a quarterly basis, however, Viet Nam's GDP grew faster in 2Q12—at a rate of 4.7%—compared with 4.0% in 1Q12.

The overall slowdown in Viet Nam's economy in 1H12 reflected a worsened global outlook as well as measures taken by the SBV to slow inflation and cap credit growth at 15%–17% per annum (p.a.). The latter move also aimed to help curb inflation, in addition to the rate cuts, and allay concerns over nonperforming loans in the banking system. The bad debt ratio of state-owned banks was 3.76% and that of non-state commercial banks was 4.73% at end-June.

Many businesses have experienced difficulties in accessing credit as banks have adopted more stringent lending standards in the face of rising credit risk. Since the beginning of the year, the SBV has required the banking sector to make loans at preferential interest rates in four priority fields—agricultural and rural development, exports, supporting industries, and small and medium-sized enterprises (SMEs)—at a ceiling interest rate of 15% p.a.

Meanwhile, inflation continued to drop throughout the first half of this year, reaching single-digit levels in May for the first time since October 2010. Consumer price inflation eased further to 5.04% y-o-y in August on falling prices in food, housing and construction materials, and transport. The SBV forecasts that inflation will average less than 10% for the full-year 2012.

Size and Composition

As of end-June, Viet Nam's total local currency (LCY) bonds outstanding stood at VND455.9 trillion (US$21.8 billion)—an increase of 28.5% y-o-y—driven by 42.0% growth in treasury bonds outstanding and the resumption of SBV bill issuance in March. On the other hand, the significant growth in treasury bonds and SBV bills was somewhat offset by contractions of 4.4% and 8.7% y-o-y, respectively, in state-owned enterprise (SOE) and corporate bonds outstanding **(Table 1)**.

Table 1: Size and Composition of the LCY Bond Market in Viet Nam

	Amount (billion)								Growth Rate (%)						
	Mar-12		Apr-12		May-12		Jun-12		Mar-12		Apr-12	May-12	Jun-12		
	VND	US$	VND	US$	VND	US$	VND	US$	y-o-y	q-o-q	m-o-m	m-o-m	y-o-y	q-o-q	m-o-m
Total	412,464	20	454,892	22	466,830	22	455,892	22	20.1	12.8	10.3	2.6	28.5	10.5	(2.3)
Government	370,797	18	413,225	20	425,363	20	417,525	20	23.7	14.8	11.4	2.9	33.5	12.6	(1.8)
Treasury Bonds	165,974	8	176,567	8	184,853	9	185,403	9	36.1	11.6	6.4	4.7	42.0	11.7	0.3
Central Bank Bonds	30,478	1	68,334	3	69,276	3	58,078	3	–	–	124.2	1.4	–	90.6	(16.2)
State-Owned Enterprise Bonds	174,345	8	168,324	8	171,234	8	174,044	8	(2.0)	(0.04)	(3.5)	1.7	(4.4)	(0.2)	1.6
Corporate	41,667	2	41,667	2	41,467	2	38,367	2	(4.1)	(2.3)	–	(0.5)	(8.7)	(7.9)	(7.5)

– = not applicable, LCY = local currency, m-o-m = month-on-month, q-o-q = quarter-on-quarter, y-o-y = year-on-year.

Notes:
1. Bloomberg LP end-of-period LCY–US$ rates are used.
2. Growth rates are calculated from LCY base and do not include currency effects.

Source: Bloomberg LP.

Total LCY government bonds outstanding surged 33.5% y-o-y and stood at VND417.5 trillion as of end-June. Treasury bond issuance was quite active in the first half of the year, due to issuance of VND60.9 trillion out of the VND100 trillion planned by the State Treasury for the full-year 2012. Total new issuance of SOE bonds reached VND31.8 trillion in the first half of the year out of planned issuance of VND59 trillion in 2012. Meanwhile, the SBV resumed its bill issuance in March with total issuance amounting to VND58.1 trillion through end-June.

Total LCY corporate bonds outstanding contracted 8.7% y-o-y to VND38.4 trillion as of end-June, due to the overall lack of new corporate bond issuance since the beginning of the year.

As of 30 June, the Viet Nam Technological and Commercial Joint Stock Bank (Techcombank) had the largest volume of bonds outstanding at VND6.85 trillion **(Table 2)**, overtaking the previous lead issuer, the Viet Nam Joint Stock Bank for Industry and Trade (Vietin Bank) at VND4.1 trillion. In between these two issuers in the second spot was the Asia Commercial Joint Stock Bank with a total of VND5.09 trillion bonds outstanding. Total LCY bonds outstanding among the 15 largest issuers comprised 93.2% of all LCY corporate bonds outstanding.

Rating Changes

On 7 June, Standard & Poor's (S&P) revised Viet Nam's outlook from negative to stable on the back of its success in bringing inflation back down to single-digit levels **(Table 3)**. The rating agency also affirmed the country's long-term sovereign credit rating at BB– and the short-term rating at B.

Policy, Institutional, and Regulatory Developments

SBV Sets Maximum VND Short-Term Lending Rate of Credit Institutions

Effective 8 May, the SBV set credit institutions' maximum VND short-term lending rate for

Table 2: Top 15 Issuers of LCY Corporate Bonds in Viet Nam (as of end-June 2012)

Issuers	Outstanding Amount		State-Owned	Privately-Owned	Listed Company	Type of Industry
	LCY Bonds (VND billion)	LCY Bonds (US$ billion)				
1. Vietnam Techcombank	6,850	0.33	No	Yes	No	Finance
2. Asia Commercial Joint Stock Bank	5,090	0.24	No	Yes	Yes	Finance
3. Vietin Bank	4,095	0.20	No	Yes	Yes	Finance
4. Vincom	4,000	0.19	No	Yes	Yes	Real Estate
5. Vinpearl	3,500	0.17	No	Yes	Yes	Resorts and Theme Parks
6. HAGL	3,260	0.16	No	Yes	Yes	Real Estate
7. Agribank Securities	2,000	0.10	No	Yes	Yes	Finance
8. Sacombank	1,900	0.09	No	Yes	Yes	Finance
9. Vietnam Maritime Commercial Bank	1,000	0.05	No	Yes	No	Finance
10. Minh Phu Seafood	900	0.04	No	Yes	No	Fisheries
11. Hoa Phat Group	800	0.04	No	Yes	Yes	Industrial
12. PFV Investment & Trading	650	0.03	No	Yes	No	Real Estate
13. An Binh Bank	600	0.03	No	Yes	No	Finance
14. Phu Hoang Anh	600	0.03	No	Yes	No	Real Estate
15. Kinh Bac City Development	500	0.02	No	Yes	Yes	Real Estate
Total Top 15 LCY Corporate Issuers	**35,745**	**1.71**				
Total LCY Corporate Bonds	**38,367**	**1.84**				
Top 15 as % of Total LCY Corporate Bonds	**93.2%**	**93.2%**				

LCY = local currency.
Source: Bloomberg LP.

Table 3: Selected Sovereign Ratings and Outlook for Viet Nam

	Moody's	S&P	Fitch
Sovereign FCY LT Ratings	B1	BB–	B+
Outlook	Negative	Stable	Stable

FCY = foreign currency, LT = long-term.
Source: Rating agencies.

borrowers at 300 bps above the ceiling VND deposit rate for term deposits longer than 1 month. In the same circular, the SBV required credit institutions to set a ceiling loan interest rate of 15% p.a. for four priority fields—agricultural and rural development, exports, supporting industries, and SMEs—once borrowers have met the credit extension conditions required by credit institutions.

SBV Cuts VND Ceiling Deposit Rates

The SBV has cut VND ceiling deposit rates four times since the beginning of the year. Effective 11 June, the SBV set the ceiling VND deposit rate at 2% for demand and time deposits of less than 1 month, and 9% for time deposits of 1 month to 12 months. Local people's credit funds have been authorized to apply a ceiling VND deposit rate of 9.5% for time deposits of 1 month to 12 months. The ceiling VND deposit rate for time deposits of 12 months or longer can be set by local people's credit funds, based on capital supply and demand in the local market.

SBV Cuts Key Rates for the Fifth Time in 2012

Effective 1 July, the SBV cut key interest rates for the fifth time in 2012 on the back of easing inflation. The discount rate, refinancing interest rate, and overnight rate for inter-bank electronic payments were each cut by an additional 100 bps to 8%, 10%, and 11%, respectively.

New Rules for Issuance of Treasury Bills through SBV

Effective 14 August, new rules guide the issuance of treasury bills via the SBV. These new rules include (i) securities companies as new participants in the bidding, (ii) direct sale to the SBV as a new method of issuance, and (iii) multi-price bidding as a new method of determining bidding results. Also, the Viet Nam Securities Depository (VSD) has replaced the SBV as the payment agent for principal and interest payments.

Asia Bond Monitor
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This publication reviews recent developments in East Asian local currency bond markets along with the outlook, risks, and policy options. It covers the 10 members of the Association of Southeast Asian Nations plus the People's Republic of China; Hong Kong, China; and the Republic of Korea.

It was prepared by the Asian Development Bank's Office of Regional Economic Integration, headed by Iwan J. Azis. The production of the Asia Bond Monitor was led by Sabyasachi Mitra and John Stuermer with support from the ***AsianBondsOnline*** team (www.asianbondsonline.adb.org).

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Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines
www.adb.org

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