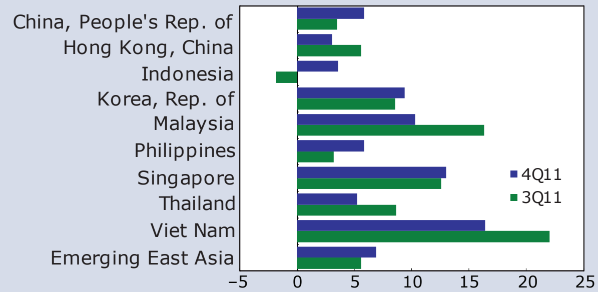
Bond Market Developments in the Fourth Quarter of 2011

Size and Composition

Total bonds outstanding in emerging East Asia's LCY bond market rose 7.0% y-o-y and 2.2% q-o-q to reach US$5.7 trillion at the end of 4Q11, driven by strong growth in corporate bonds.[4]

The year-on-year (y-o-y) growth rate for emerging East Asia's local currency (LCY) bond market rose to 7.0% in 4Q11 from 5.7% in 3Q11 **(Figure 1)**. The government bond market grew by a modest 2.5% y-o-y in 4Q11, while the corporate segment of the region's bond market grew by a much more robust 17.1% **(Table 1)**.

Figure 1: Growth of LCY Bond Markets in 3Q11 and 4Q11 (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-December 2011 currency exchange rates and does not include currency effects.
4. For Singapore, corporate bonds outstanding quarterly figures are 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); the Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); the 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 were those of Viet Nam, Singapore, Malaysia, and the Republic of Korea, which grew 16.5%, 13.1%, 10.4%, and 9.5%, respectively. In the cases of Viet Nam, Singapore, and Malaysia, growth was mostly due to the rapid expansion of their respective government bond markets. On the other hand, the Republic of Korea's y-o-y growth rate owes most of its growth to the robust performance of its large corporate bond sector.

On a quarter-on-quarter (q-o-q) basis, the region's bond market growth leader in 4Q11 was the Philippines, which grew 3.5% on the back of a strong performance from both its government (3.1%) and corporate (6.5%) bond sectors. The only corporate bond markets to experience more rapid q-o-q growth in 4Q11 were those of Indonesia and the People's Republic of China (PRC), which expanded 9.2% and 8.7%, respectively.

The second, third, and fourth most rapidly growing LCY bond markets on a q-o-q basis in 4Q11 were those of the PRC (3.1%), the Republic of Korea (2.0%), and Indonesia (1.2%). In all three cases, growth was driven by expansion in the corporate bond market. In fact, the only government bond market in emerging East Asia to grow more rapidly than 1.0% q-o-q in 4Q11—besides the Philippines—was that of the PRC, which grew 1.3%.

Emerging East Asia's government bond market grew moderately in 4Q11 on both a y-o-y (2.5%) and q-o-q (0.8%) basis.

The regional government bond market's y-o-y growth rate of 2.5% in 4Q11 was only a marginal improvement over the 1.8% growth realized in 3Q11. The government bond markets reporting the most significant y-o-y growth were those of Viet Nam (19.9%), Singapore (16.0%), Malaysia (12.0%), and the Republic of Korea (6.0%). However, all four of these government bond markets reported either negligible or negative

[4] 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

	4Q10		**3Q11**		**4Q11**		**Growth Rate** (LCY-base %)				**Growth Rate** (US$-base %)			
	Amount (US$ billion)	**% share**	**Amount** (US$ billion)	**% share**	**Amount** (US$ billion)	**% share**	**4Q10**		**4Q11**		**4Q10**		**4Q11**	
							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	3,052	100.0	3,247	100.0	3,392	100.0	0.8	15.1	3.1	5.9	2.1	18.9	4.5	11.1
Government	2,408	78.9	2,474	76.2	2,540	74.9	0.02	10.3	1.3	0.5	1.3	14.0	2.7	5.5
Corporate	644	21.1	773	23.8	852	25.1	3.6	37.2	8.7	26.0	4.9	41.8	10.2	32.2
Hong Kong, China														
Total	163	100.0	170	100.0	169	100.0	1.6	14.0	(0.9)	3.1	1.4	13.7	(0.6)	3.2
Government	87	53.3	90	52.8	91	53.7	0.8	25.5	0.9	3.9	0.6	25.2	1.1	4.0
Corporate	76	46.7	80	47.2	78	46.3	2.5	3.2	(2.8)	2.2	2.3	3.0	(2.6)	2.3
Indonesia														
Total	107	100.0	111	100.0	110	100.0	(4.2)	3.1	1.2	3.6	(5.1)	7.8	(1.0)	2.8
Government	94	88.0	96	86.3	93	85.2	(5.9)	0.3	(0.1)	0.3	(6.9)	4.9	(2.2)	(0.5)
Corporate	13	12.0	15	13.7	16	14.8	11.3	29.8	9.2	28.0	10.2	35.7	6.8	27.0
Korea, Rep. of														
Total	1,149	100.0	1,179	100.0	1,229	100.0	1.2	9.4	2.0	9.5	2.5	13.1	4.2	7.0
Government	492	42.8	501	42.5	510	41.5	(2.0)	7.2	(0.5)	6.0	(0.7)	10.8	1.7	3.5
Corporate	657	57.2	678	57.5	719	58.5	3.7	11.1	3.8	12.1	5.0	14.8	6.1	9.5
Malaysia														
Total	247	100.0	263	100.0	263	100.0	4.7	18.9	(0.7)	10.4	5.5	33.0	(0.1)	6.7
Government	145	59.0	158	60.1	158	59.8	5.7	28.5	(1.2)	12.0	6.5	43.7	(0.5)	8.3
Corporate	101	41.0	105	39.9	106	40.2	3.3	7.4	(0.05)	8.1	4.2	20.1	0.6	4.5
Philippines														
Total	73	100.0	75	100.0	77	100.0	0.9	10.0	3.5	5.9	1.0	15.9	3.4	5.8
Government	64	88.0	65	87.5	67	87.2	0.7	10.1	3.1	4.9	0.8	16.0	2.9	4.8
Corporate	9	12.0	9	12.5	10	12.8	2.6	9.3	6.5	13.4	2.7	15.2	6.3	13.3
Singapore														
Total	169	100.0	188	100.0	189	100.0	(0.6)	9.8	(0.2)	13.1	1.9	20.1	0.6	12.0
Government	103	60.9	116	61.9	118	62.5	3.3	7.0	0.8	16.0	5.9	17.1	1.6	14.8
Corporate	66	39.1	72	38.1	71	37.5	(6.2)	14.4	(1.9)	8.6	(3.8)	25.3	(1.1)	7.5
Thailand														
Total	225	100.0	229	100.0	225	100.0	2.7	14.4	(0.6)	5.3	3.7	27.0	(1.7)	0.3
Government	183	81.4	187	81.5	182	80.8	2.8	16.7	(1.4)	4.4	3.8	29.6	(2.5)	(0.5)
Corporate	42	18.6	43	18.5	43	19.2	2.2	5.3	3.1	9.1	3.1	16.9	1.9	3.9
Viet Nam														
Total	16	100.0	17	100.0	17	100.0	5.3	37.6	0.4	16.5	5.2	30.5	(0.6)	8.0
Government	14	88.4	15	90.9	15	90.9	1.4	33.5	0.4	19.9	1.4	26.5	(0.6)	11.1
Corporate	2	11.6	2	9.1	2	9.1	48.0	80.3	0.3	(8.7)	48.0	70.9	(0.7)	(15.4)
Emerging East Asia (EEA)														
Total	5,200	100.0	5,479	100.0	5,671	100.0	1.0	13.5	2.2	7.0	2.2	18.1	3.5	9.1
Government	3,591	69.0	3,703	67.6	3,774	66.6	0.1	10.8	0.8	2.5	1.2	15.4	1.9	5.1
Corporate	1,610	31.0	1,776	32.4	1,897	33.4	3.2	20.1	5.2	17.1	4.4	24.7	6.8	17.9
EEA Less PRC														
Total	2,148	100.0	2,232	100.0	2,279	100.0	1.3	11.1	1.0	8.6	2.4	16.9	2.1	6.1
Government	1,183	55.1	1,229	55.0	1,234	54.1	0.1	11.8	(0.3)	6.8	1.0	18.3	0.4	4.3
Corporate	965	44.9	1,003	45.0	1,045	45.9	2.9	10.2	2.6	10.7	4.1	15.4	4.2	8.3
Japan														
Total	11,718	100.0	12,626	100.0	12,715	100.0	1.5	6.2	0.5	2.9	4.5	21.8	0.7	8.5
Government	10,606	90.5	11,467	90.8	11,560	90.9	1.6	6.8	0.6	3.3	4.7	22.5	0.8	9.0
Corporate	1,113	9.5	1,159	9.2	1,154	9.1	0.3	0.6	(0.6)	(1.6)	3.3	15.4	(0.4)	3.8

LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. For Singapore, corporate bonds outstanding quarterly figures are based on *AsianBondsOnline* estimates.
2. Corporate bonds include issues by financial institutions.
3. Bloomberg LP end-of-period LCY–US$ rates are used.
4. For LCY base, emerging East Asia growth figures are based on end-December 2011 currency exchange rates and do not include currency effects.
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.
Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia and Indonesia Stock Exchange); the Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); the 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).

q-o-q growth rates of 0.4%, 0.8%, –1.2%, and –0.5%, respectively. In Singapore's case, the y-o-y increase was mostly due to the introduction of bill issuance by the Monetary Authority of Singapore (MAS) beginning in April 2011. Malaysia had previously issued large volumes of government bonds in 2010 and the first quarter of 2011, but sharply reduced issuance thereafter.

As mentioned above, the only government bond market to report significant q-o-q growth in 4Q11 was that of the Philippines at 3.1%. This was primarily a result of the Bureau of the Treasury's (BTr) issuance of PHP110 billion worth of 10- and 15-year Retail Treasury Bonds (RTBs) in October. In February, BTr sold a total of PHP179.8 billion of 15- and 20-year RTBs at coupon rates of 5.375% and 5.875%, respectively.

The y-o-y growth rate for emerging East Asia's government bond market in 4Q11 was the lowest in recent years **(Figure 2a)**. This reflected a (i) 12.4% y-o-y decline in treasury and other types of central government issuance (–31.3% on a q-o-q basis), and (ii) 0.9% y-o-y decline in issuance by monetary authorities (–11.3% on a q-o-q basis). The decline in treasury bond issuance in most markets was the result of a reduction or termination of fiscal stimulus programs that had been in place since the global financial crisis of 2007–09. At the same time, most central banks and monetary authorities have been sharply curtailing the sterilization activities pursued in recent years.

At the end of 2011, the PRC government bond market was once again the largest in the region, amounting to US$2.5 trillion. 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$338 billion, and US$1.0 trillion, respectively, at the end of 2011. The most rapidly growing sector of the PRC government bond market in 4Q11 was the policy bank bond sector, which grew at a y-o-y rate of 25.5%. Treasury bonds grew at a rate of 10.8% y-o-y. Meanwhile, central bank bonds shrank 47.9% y-o-y, which explains the low 0.5% y-o-y growth rate for the PRC government bond market as a whole in 4Q11.

Figure 2a: Emerging East Asian LCY Government Bond Market Annual Growth Rates, 2001–2011 (%)

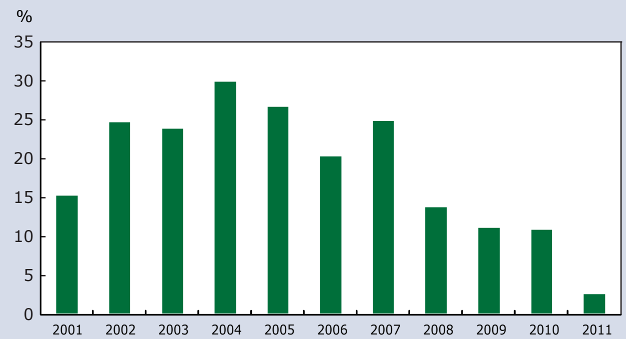
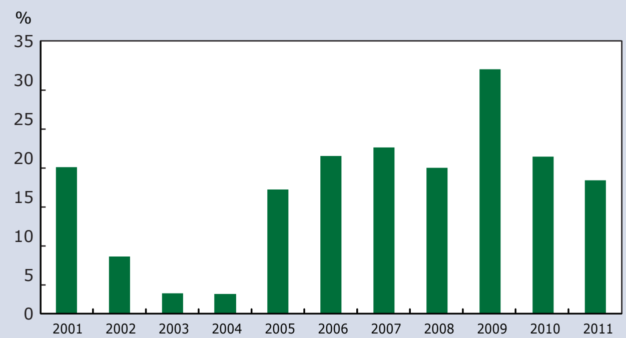


Figure 2b: Emerging East Asian LCY Corporate Bond Market Annual Growth Rates, 2001–2011 (%)



LCY = local currency.
Notes:
1. Calculated using data from national sources.
2. Growth figures are based on end-December 2011 currency exchange rates and do not include currency effects.

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The corporate bond market in emerging East Asia expanded 17.1% y-o-y and 5.2% q-o-q in 4Q11, reflecting the acceleration of corporate bond issuance in most markets.

The y-o-y growth rate for emerging East Asia's corporate bond market rose to 17.1% y-o-y in 4Q11 from 14.8% in 3Q11, led by Indonesia (28.0%), the PRC (26.0%), the Philippines (13.4%), and the

Republic of Korea (12.1%). The 4Q11 outcome for the region's corporate bond market was robust on both a y-o-y and q-o-q basis, with corporate bonds expanding 5.2% q-o-q. The most rapidly growing markets on a y-o-y basis were also those that expanded the most—and in the same order—on a q-o-q basis: Indonesia (9.2%), the PRC (8.7%), the Philippines (6.5%), and the Republic of Korea (3.8%). The only markets to experience flat or negative q-o-q growth rates in their corporate bond sectors were Viet Nam (0.3%); Malaysia (–0.05%); Singapore (–1.9%); and Hong Kong, China (–2.8%). The region's corporate bond market growth rate fell from slightly higher levels in 2009 and 2010, but it remains much higher than it was in the middle of the last decade, which suggests that growth should remain robust over the next several years **(Figure 2b)**.

The acceleration of the PRC corporate bond market's y-o-y growth rate from 20.0% in 3Q11 to 26.0% in 4Q11 was driven primarily by commercial bank bonds, medium-term notes (MTNs), and local corporate bonds, which grew at y-o-y rates of 51.6%, 45.9%, and 37.3%, respectively. Growth in state-owned enterprise (SOE) bonds, on the other hand, was flat at 1.7% y-o-y, while commercial paper and asset-backed securities declined 23.1% and 47.7%, respectively. The rapid growth of commercial bank bonds reflected the fact that most of these bonds are subordinated notes and will qualify as Tier II capital under Basel III capital requirements. Many local corporate bonds are being issued by commercial entities of local governments that are facing curtailed bank lending, while the issuance platform for MTNs continues to provide an efficient and easy-to-use source of finance for firms.

In the Republic of Korea, the most rapidly growing sector of the corporate bond market in 4Q11 was once again private sector corporate bonds, which grew 22.0% y-o-y and 6.5% q-o-q. Private sector corporate bonds totaled US$306.8 billion at the end of 4Q11 and accounted for 42% of the total corporate bond market. Special public bonds grew 10.1% y-o-y and 2.6% q-o-q to reach US$232.8 billion. Special public bonds comprise issues from government-owned entities such as Korea Land and Housing, KEPCO, and Korea Highway. Finally, financial debentures, which amounted to US$179.8 billion, grew by a marginal 1.0% y-o-y.

The pace of corporate issuance of LCY bonds continued to quicken in the early months of 2012, even in markets where corporate issuance declined or was flat in 4Q11, such as Malaysia and Singapore. Notable issues from Malaysian corporates in the first several months of 2012 tended to be *sukuk* (Islamic bonds). In January, toll expressway operator Projek Lebuhraya Utara Selatan (PLUS) Bhd. issued MYR30.6 billion (US$ 9.7 billion) worth of multi-tranche Islamic MTNs, marking the world's largest *sukuk* issuance to date. The *sukuk* were issued in 23 tranches, with maturities ranging between 5 and 25 years, and coupons ranging between 3.90% and 5.75%. In addition, Sarawak Energy raised a total of MYR2.5 billion from the sale of *sukuk*, consisting of MYR1.2 billion worth of 10-year notes and MYR1.3 billion worth of 15-year notes, with coupons of 4.50% and 4.85%, respectively. In February, telecommunications company Maxis Bhd. sold MYR2.45 billion worth of 10-year *sukuk* paying a coupon of 5.0%.

Issuance from Singapore in recent months has included a Development Bank of Singapore (DBS) 10-year fixed-rate subordinated note, with a coupon of 3.3%, and a growing number of perpetual bonds. In late February, commodities trader Olam International issued SGD275 million of perpetual bonds at a yield of 7.0%. In the first week of March, Singapore Post (SingPost) issued SGD350 million worth of perpetual bonds priced at 4.25%, while gaming conglomerate Genting Singapore Plc. priced (at par) SGD1.8 billion of perpetual bonds that pay a coupon of 5.125% per annum. The bonds are callable at par after 5.5 years and will pay 6.125% from the 10th year onward, without the benefit of a subsequent coupon rate reset.

While some of these recent issues pay coupons significantly higher than sovereign bonds with comparable maturities, one frequently observed weakness of the emerging East Asian corporate bond market has been the absence of a significant high-yield segment in which small and medium-sized enterprises (SMEs) can issue bonds. Nevertheless, some high-yield (or at least moderately high-yield) bonds are beginning to appear in the market.

This has been the case in Hong Kong, China's CNH bond market. Most issuers in the CNH bond market have been blue chip issuers from the PRC or abroad, who have the ability to issue at very tight yields. On the other hand, investors are beginning to look beyond top-rated Chinese names in search of yields exceeding the 2%–3% range that has been typical in the CNH bond market to date. Several examples of high- and moderately high-yield bond issues in the CNH market last year include the following:

(i) On 18 April, Big Will Investment Co., a special purpose vehicle of Guangzhou R&F Properties, issued a 3-year bond for CNH2.6 billion (US$406 million) with a coupon of 7.0%.

(ii) On 9 November, Lafarge Shui On Cement raised CNH1.5 billion from the issuance of 3-year commercial paper with a coupon of 9.0%.

(iii) On 10 November, Tsinlien Group Company, an investment holding arm of the Tianjin government operating in Hong Kong, China, issued CNH1.3 billion of 5.75% guaranteed bonds due in 2014 via its wholly-owned unit, Victor Soar. The bonds were listed at the Singapore Exchange Securities Trading Limited.

Neither the Big Will, Lafarge Shui On Cement, nor Tianjin–Victor Soar CNH bonds were rated. However, the French-based Lafarge cement company guaranteed the Lafarge Shui On bond based on its ratings of Ba1 from Moody's and BB+ from S&P.

More recently, Ford Motor of the United States (US) issued a CNH1 billion 3-year bond with a coupon of 4.875%. Ford has ratings of Ba1 (positive) from Moody's, BB+ (stable) from S&P, and BB+ (positive) from Fitch. Ford's financing will be the first in the CNH market from an entirely foreign company with a sub-investment grade rating.

The China Securities Regulatory Commission (CSRC) has announced that it will allow SMEs in the PRC to begin issuing high-yield bonds that can be traded on the stock exchanges of Shanghai and Shenzhen. The launch date for this new program, has yet to be announced.

Meanwhile, the Republic of Korea is setting up an SME bond trading platform that is expected to be launched in May.

Development of the region's corporate bond market over the next several years could be influenced to some extent by the tightening of bank lending standards in preparation for the implementation of Basel III capital regulations. Specifically, the tightening of lending standards and higher capital requirements and liquidity coverage ratios could possibly result in greater corporate bond issuance.

Finally, contractual savings institutions (CSIs)—pension funds, insurance companies, and social security institutions—are building their portfolios of corporate bonds as rapidly as they are building their portfolios of government bonds. Demand from this sector, discussed in more detail below, will likely continue to grow as CSIs seek enhanced yields and duration.

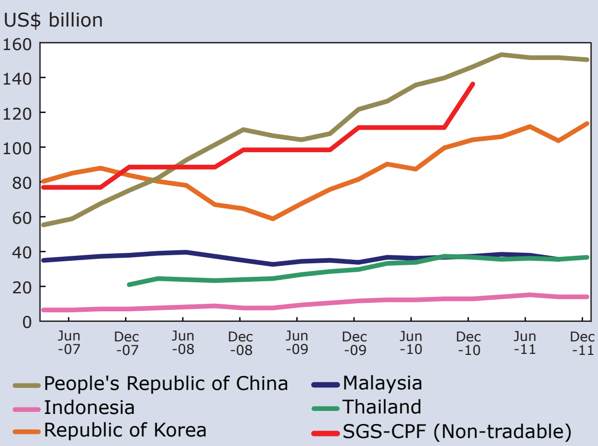
The Growing Role of Contractual Savings Institutions in Emerging East Asia's Bond Market

CSIs have become an increasingly important investor class in the emerging East Asian bond market in recent years, reflecting the ongoing maturation of the region's bond markets.

Government bonds held by CSIs. The rapid growth of government bonds held by insurance companies and other CSI investors over the last 5 years is shown in **Figure 3a**. The PRC and the Republic of Korea have seen the most rapid overall growth in CSI holdings of their government bonds. In the Republic of Korea, the US$ value of government bonds held by insurance companies and pension funds reached US$114.3 billion at end-December of last year. In the PRC, the amount of treasury bonds and policy bank bonds held by insurance companies has been on a long-term rise since the 1997/98 Asian financial crisis, reaching US$151 billion at the end of 2011.

Government bonds held by insurance companies and pension funds in Indonesia have increased at a more gradual pace in recent years. Holdings of Malaysian government bonds by Malaysian insurance companies and social security institutions also have grown moderately in recent years to reach US$35.7 billion at end-September. Holdings of Thai government bonds (excluding central bank bonds and SOE bonds) by Thai insurance companies, pension funds, and social security institutions declined slightly at the end of 2011 to US$36.9 billion from a high of US$37.9 billion at end-September 2010.

Figure 3a: Trends in Holdings of Government Bonds by CSI Investors



CSI = contractual savings institution.
Notes:
1. Data for the People's Republic of China refer only to treasury bonds and policy bank bonds.
2. Special issues of Singapore Government Securities (SGS) held by the Central Provident Fund (CPF) are non-tradable bonds and are not included in computation of bonds oustanding for Singapore.
3. Data for Thailand exclude central bank bonds and state-owned enterprise bonds.
4. Data for Singapore as of December 2010; Malaysia as of September 2011.

Sources: People's Republic of China (*ChinaBond*), Indonesia (Indonesia Debt Management Office), Republic of Korea (The Bank of Korea), Malaysia (Bank Negara Malaysia), Singapore (Central Provident Fund Singapore Annual Reports), and Thailand (Bank of Thailand).

Finally, Singapore Government Securities (SGS) held by Singapore's Central Provident Fund (CPF) at the end of 2010 amounted to SGD176 billion, or slightly less than US$140 billion. The SGS issued to the CPF are non-tradable and *AsianBondsOnline* does not include them in its database on Singapore government debt.

The proportion of total government bonds outstanding held by CSIs varies a great deal from one market to another across the region. It is the lowest in the PRC, where the percentage of PRC government bonds held by insurance companies is only 6.9%. The percentage is highest in Thailand, where the share of government bonds (excluding central bank bonds and SOE bonds) held by insurance companies and contractual savings funds is 45% of the total. In between these two extremes is the Republic of Korea, where the percentage of government bonds held by insurance companies and pension funds is 25%, and Indonesia, where the percentage of treasury bonds held by insurance companies and pensions funds is 18%, with insurance companies accounting for 13% and pension funds holding 5%.

Corporate bonds held by CSIs. Investments by insurance companies and pension funds account for 32% of all bonds (excluding financial debentures) in the Republic of Korea's corporate bond market. CSI investors in the Republic of Korea increased their historically low holdings of financial debentures to 14% in 2011.

In Malaysia, a combination of insurance companies and the Employees Provident Fund held 46% of total corporate bonds at the end of 2010. Insurance companies held 33% of total corporate bonds outstanding, with life insurance companies holding the largest share at 30% and general insurance companies holding only 3%. The Employees Provident Fund held 13% of Malaysian corporate bonds at the end of 2010. In Thailand, a combination of insurance companies and contractual savings funds held around 20% of Thai corporate bonds at end-September. Contractual savings funds held 11% of the total and insurance companies held 9%.

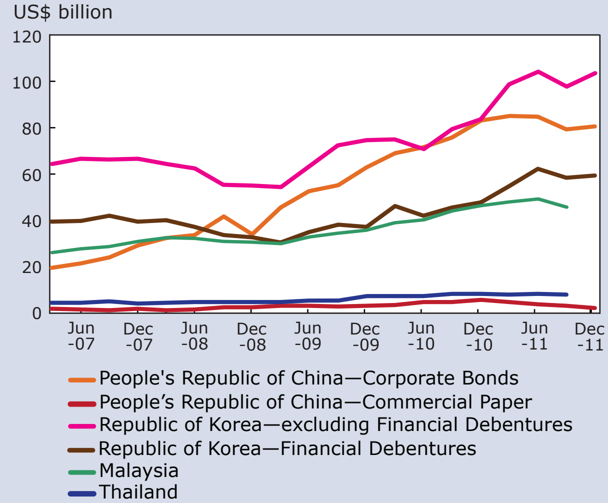
In the PRC's corporate bond market, insurance companies held 21% of total corporate bonds, including MTNs, commercial paper, and commercial bank bonds. However, insurance companies held 57% of commercial bank bonds, of which the majority comprise subordinated bonds with longer maturities and higher yields than most other corporate bonds. Thus, they nicely satisfy the requirements of CSI investors.

Figure 3b provides a glimpse of investment trends in corporate bonds with regard to insurance companies, pension funds, and other CSIs over the last 5 years. The time series data for CSI holdings of PRC corporate bonds in Figure 3b does not include data on holdings of MTNs or commercial bank bonds as data on these CSI holdings have only been available since the end of 2010. **Table 2a** brings these additional data points together.

Holdings of all types of PRC corporate bonds by CSI investors had risen by the end of 4Q11 to an amount equivalent to US$172.0 billion from US$152.5 billion at end-September. Comparable data for holdings of corporate bonds by CSI investors in other emerging East Asian markets is presented in **Table 2b**.

Figure 4 compares the ratios of CSI holdings of corporate bonds to total corporate bonds with that of CSI holdings of government bonds to total government bonds in the four markets for which data are available. The share of CSI corporate bond holdings exceeds that for CSI holdings of government bonds in all markets except Thailand. Furthermore, the absolute value of corporate bonds held by CSI investors exceeds the absolute value of their holdings of government bonds in the PRC, Republic of Korea, and Malaysia. Only in Thailand is the absolute value of government bonds held by CSI investors greater than their holdings of corporate bonds.

Figure 3b: Trends in Holdings of Corporate Bonds by CSI Investors



CSI = contractual savings institution.

Notes:

1. People's Republic of China—Corporate Bonds include state-owned enterprise (SOE) bonds and local corporate bonds.
2. Republic of Korea—excluding Financial Debentures includes private corporate bonds and special public bonds.
3. Republic of Korea—Financial Debentures include bank bonds and bonds issued by Korea Development Bank.

Sources: People's Republic of China (*ChinaBond*), Republic of Korea (The Bank of Korea), Malaysia (Bank Negara Malaysia and Employees Provident Fund), and Thailand (Thai Bond Market Association).

Ratio of Bonds Outstanding to Gross Domestic Product

The ratio of LCY bonds outstanding to gross domestic product in emerging East Asia fell to 52.6% in 4Q11 from 53.1% in 3Q11.

The ratio of bonds outstanding to gross domestic product (GDP) in emerging East Asia fell to 52.4% in 4Q11 from 53.1% in 3Q11, and from 56.6% in 4Q10 **(Table 3)**. The ratio of government bonds to GDP fell to 34.9% in 4Q11 from 35.9% in 3Q11, while the ratio of corporate bonds to GDP rose slightly to 17.5% in 4Q11 from 17.2% in 3Q11. The ratio of government bonds to GDP fell or remained unchanged in 4Q11 in all of the region's markets except the Philippines, where the ratio rose. Meanwhile, the ratio of government bonds to GDP remained unchanged at 47.0% in Singapore and 37.4% in Hong Kong, China. The ratio of corporate bonds to GDP, on the other hand, rose in most markets. The only markets to experience a

Table 2a: Total Corporate Bonds Held by Contractual Savings Institutions in the PRC (US$ billion)

	4Q10	1Q11	2Q11	3Q11	4Q11
PRC Corporate Bonds Held by CSIs	**138.4**	**142.6**	**160.3**	**152.5**	**172.0**
Corporate Bonds	83.2	84.9	84.6	79.2	80.4
Commercial Paper	5.6	4.7	3.6	3.3	2.1
Medium-Term Notes	4.0	5.9	5.9	5.2	5.5
Commercial Bank Bonds	45.6	47.1	66.2	64.9	83.9
CSI Holdings as % of Total Corporate Bonds	***22%***	***21%***	***22%***	***20%***	***21%***
CSI Holdings of Commercial Bank Bonds as % of Total Commercial Bank Bonds	49%	49%	56%	55%	57%

CSIs = contractual savings institutions, PRC = People's Republic of China.
Source: *ChinaBond*.

Table 2b: Total Corporate Bonds Held by Contractual Savings Institutions in Other Emerging East Asian Markets (US$ billion)

	2006	2007	2008	2009	2010	2011
Republic of Korea	**99.4**	**106.0**	**87.8**	**111.7**	**131.4**	**162.8**
Corporate Bonds	62.3	66.5	55.1	74.6	83.7	103.4
Financial Debentures	37.2	39.6	32.7	37.1	47.7	59.4
CSI Holdings as % of Total Corporate Bonds	***15%***	***16%***	***16%***	***17%***	***18%***	***22%***
Excluding Republic of Korea Financial Debentures	*27%*	*31%*	*29%*	*29%*	*28%*	*32%*
Malaysia	**25.0**	**30.9**	**30.7**	**35.9**	**46.4**	–
Insurance Companies	15.4	19.2	19.4	24.9	32.8	–
Employees Provident Fund	9.5	11.8	11.3	11.0	13.6	–
CSI Holdings as % of Total Corporate Bonds	***46%***	***44%***	***40%***	***43%***	***46%***	–
Thailand	**4.3**	**4.0**	**4.7**	**7.3**	**8.3**	–
Insurance Companies	1.6	1.6	2.2	2.7	3.6	–
Pension Funds	2.7	2.4	2.5	4.6	4.7	–
CSI Holdings as % of Total Corporate Bonds	***28%***	***25%***	***22%***	***23%***	***22%***	–

– = data not available, CSI = contractual savings institution.
Note: For the Republic of Korea, financial debentures include bonds issued by the Korea Development Bank.
Source: Republic of Korea (The Bank of Korea), Malaysia (Bank Negara Malaysia and Employees Provident Fund), and Thailand (Thai Bond Market Association).

decline in the ratio of corporate bonds to GDP were those of Hong Kong, China; Malaysia; Singapore; and Viet Nam.

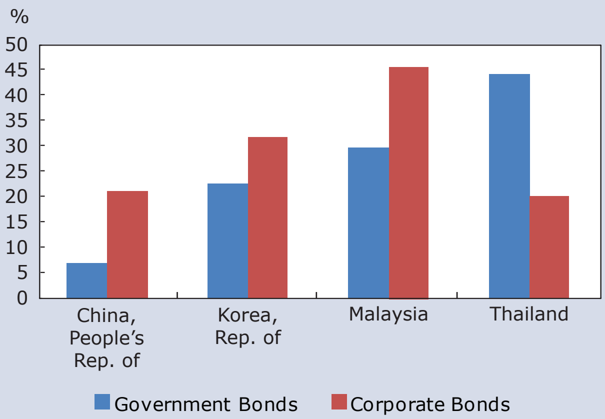
Issuance

LCY bond issuance in emerging East Asia totaled US$3.4 trillion in 2011, a decline of 10.2% from 2010.

Government bond issuance shrunk by 14.8% in 2011 to US$2.7 trillion, while corporate bond issuance rose 12.5% to US$714 billion. Quarterly issuance was quite volatile during the year, whether measured by government (including SOE) and central bank issuance **(Figure 5a)**, corporate issuance **(Figure 5b)**, or total issuance (excluding the PRC and issuance by the PRC only) **(Figure 5c)**. In almost all cases except central bank issuance, 4Q11 was the low point of issuance during the year. Central bank issuance in 4Q11 fell from its 3Q11 level, but was still slightly higher than it was during 2Q11.

Total LCY bond issuance in emerging East Asia in 4Q11 reached US$783 billion, a 4.6% rise on a y-o-y basis, but a 7.9% decline on a q-o-q basis. The principal causes of this weak performance were substantial q-o-q declines in issuance by governments and central banks and monetary authorities. As mentioned above, issuance by central banks and monetary authorities has been declining since the middle of 2010 as these entities have retreated from the sterilization activities pursued in response to the 2007–09 financial crisis. Governments—and state agencies other than central banks—sharply reduced their issuance as well in 4Q11. Thus, issuance of treasuries and government agency bonds rose 8.8% q-o-q in 3Q11, but fell 31.3% in 4Q11. On a y-o-y basis, issuance of treasuries and government agency bonds rose 14.5% y-o-y in 3Q11, but fell 12.4%

Figure 4: CSI Holdings of Government and Corporate Bonds as Percentage of Total



CSI = contractual savings institutions.
Notes:
1. Data for the People's Republic of China's (PRC) government bonds include treasury bonds and policy bank bonds.
2. Data for the PRC's corporate bonds include regular corporate bonds, commercial paper, medium-term notes, and commercial bank bonds.
3. Data for Thailand's government bonds exclude central bank bonds and state-owned enterprise bonds.
4. Data for CSI holdings of government bonds as of December 2011.
5. Data for CSI holdings of corporate bonds for the PRC and the Republic of Korea as of December 2011; Malaysia and Thailand as of September 2011.
Source: People's Republic of China (*ChinaBond*), Republic of Korea (The Bank of Korea), Malaysia (Bank Negara Malaysia), and Thailand (Bank of Thailand and Thai Bond Market Association).

in 4Q11. These outcomes contrast sharply with issuance by corporates in the region, which rose 43.6% y-o-y and 46.5% q-o-q **(Table 4)**.

The three central banks or monetary authorities that reduced their issuance the most in 4Q11 on a q-o-q basis were those of Malaysia (–33.3%); Hong Kong, China (–27.3%); and the Republic of Korea (–12.0%). Interestingly, issuance by the People's Bank of China (PBOC) and Bank Indonesia (BI) rose on a q-o-q basis by 100.6% and 160.5%, respectively. Thus, both the PBOC and BI may have stepped up their sterilization activities in 4Q11, after a substantial reduction in issuance earlier in the year.

These two sets of figures contrast sharply with the y-o-y declines of issuance in 4Q11 by the PBOC (–18.2%) and BI (–66.6%). The rise in BI issuance in 4Q11 to US$6 billion from US$2 billion in 3Q11 was modest when taking into account issuance of US$17 billion in 4Q10. In 2010, BI ceased issuing *Sertifikat* Bank Indonesia (SBI) on a weekly basis,

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

	4Q10	3Q11	4Q11
China, People's Rep. of			
Total	50.2	46.0	45.3
Government	39.6	35.1	33.9
Corporate	10.6	11.0	11.4
Hong Kong, China			
Total	72.9	70.9	69.4
Government	38.9	37.4	37.4
Corporate	34.0	33.4	32.0
Indonesia			
Total	14.9	13.7	13.4
Government	13.1	11.8	11.4
Corporate	1.8	1.9	2.0
Korea, Rep. of			
Total	110.3	113.7	114.5
Government	47.2	48.2	47.5
Corporate	63.0	65.3	67.0
Malaysia			
Total	98.6	100.7	97.8
Government	58.2	60.5	58.5
Corporate	40.4	40.2	39.3
Philippines			
Total	35.5	34.4	34.8
Government	31.3	30.1	30.4
Corporate	4.3	4.3	4.5
Singapore			
Total	70.0	76.0	75.2
Government	42.7	47.0	47.0
Corporate	27.3	29.0	28.2
Thailand			
Total	66.8	67.0	67.5
Government	54.4	54.6	54.5
Corporate	12.4	12.4	13.0
Viet Nam			
Total	15.4	15.2	14.0
Government	13.6	13.8	12.7
Corporate	1.8	1.4	1.3
Emerging East Asia			
Total	56.6	53.1	52.4
Government	39.1	35.9	34.9
Corporate	17.5	17.2	17.5
Japan			
Total	185.9	191.5	192.9
Government	168.3	173.9	175.4
Corporate	17.7	17.6	17.5

GDP = gross domestic product, LCY = local currency.
Notes:
1. Data for GDP is from CEIC.
2. For Singapore, corporate bonds outstanding quarterly figures are 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); the Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); the 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).

Figure 5a: Government (including SOE) **and Central Bank Bond Issuance, 1Q08–4Q11**

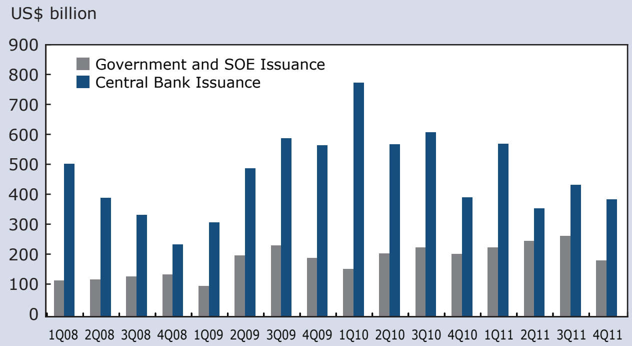


Figure 5b: Government (including SOE) **and Corporate Bond Issuance, 1Q08–4Q11**

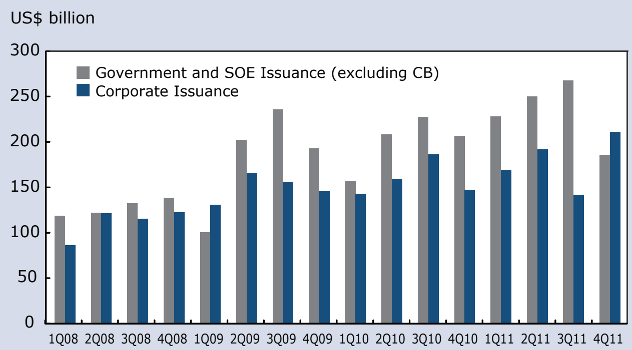
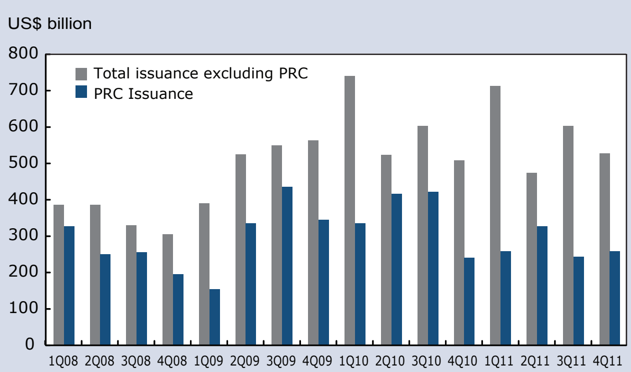


Figure 5c: Total LCY Bond Issuance, 1Q08–4Q11



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*.

instituted a required holding period of 1 month for SBIs (which has since been increased to 6 months). BI also abolished the 3- and 6-month maturities for SBI in February 2011, limiting issuance to the 9-month tenor. The y-o-y decline in BI issuance reflected the sharp reduction of SBI issuance over the last year, a measure taken in large part to discourage foreign investors from buying SBI as a means of speculating on movements in the Indonesian rupiah.

The 4Q11 trends for treasury and other government agency bonds are more complicated. While issuance of these bonds for the region as a whole fell sharply on both a q-o-q and y-o-y basis, issuance of these bonds actually rose by significant amounts on a y-o-y basis in Indonesia (141.4%); Malaysia (75.8%); the Republic of Korea (69.6%); and Hong Kong, China (22.2%). However, issuance in all of these markets declined on a q-o-q basis.

The sharp declines in Philippine government bond issuance in 4Q11 (–59.0% q-o-q and –40.8% y-o-y) stand in contrast to the fairly modest growth of Philippine government bonds outstanding (4.9% y-o-y and 3.1% q-o-q). The answer to this seeming contradiction lies in large government bond exchange transactions in 4Q10 and 3Q11; the Philippine BTr issued PHP323.0 billion of bonds in 3Q11 and PHP199.6 billion of bonds in 4Q10, resulting in the large y-o-y and q-o-q declines in issuance in 4Q11.

The overall decline of the region's government sector issuance in 4Q11 was offset to a large degree by exceptionally strong issuance from the corporate sector, which grew 46.5% q-o-q and 43.6% y-o-y. In general, issuance of PRC corporate bonds varies greatly from one quarter to the next. Among the larger corporate bond markets, the PRC corporate sector led the way with issuance growth of 102% q-o-q and 110% y-o-y. Much of the dramatic rise in PRC corporate issuance in 4Q11 was due to the extraordinarily large issuances of commercial bank bonds and MTNs, which totaled CNY182.9 billion and CNY259.8 billion, respectively. These represented

Table 4: LCY-Denominated Bond Issuance (gross)

	LCY (billion)		US$ (billion)		Growth Rate (LCY-base %)		Growth Rate (US$-base %)	
	4Q11	% share	4Q11	% share	4Q11		4Q11	
					q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of (PRC)								
Total	1,619	100.0	257	100.0	4.7	2.1	6.1	7.2
Government	983	60.7	156	60.7	(20.2)	(23.3)	(19.2)	(19.5)
Central Bank	329	20.3	52	20.3	100.6	(18.2)	103.4	(14.1)
Treasury and Other Govt	654	40.4	104	40.4	(38.8)	(25.7)	(38.0)	(22.0)
Corporate	636	39.3	101	39.3	102.4	109.7	105.2	120.1
Hong Kong, China								
Total	1,349	100.0	174	100.0	(27.3)	2.1	(27.1)	2.2
Government	1,297	96.1	167	96.1	(27.6)	1.9	(27.4)	2.0
Central Bank	1,292	95.7	166	95.7	(27.3)	1.9	(27.1)	2.0
Treasury and Other Govt	6	0.4	1	0.4	(65.6)	22.2	(65.5)	22.3
Corporate	52	3.9	7	3.9	(18.8)	6.4	(18.6)	6.5
Indonesia								
Total	93,164	100.0	10	100.0	48.0	(48.0)	44.8	(48.4)
Government	77,191	82.9	9	82.9	35.1	(53.2)	32.2	(53.6)
Central Bank	51,641	55.4	6	55.4	160.5	(66.6)	155.0	(66.8)
Treasury and Other Govt	25,550	27.4	3	27.4	(31.5)	141.4	(33.0)	139.5
Corporate	15,973	17.1	2	17.1	174.5	12.5	168.6	11.6
Korea, Rep. of								
Total	161,842	100.0	140	100.0	7.0	26.4	9.4	23.5
Government	66,516	41.1	58	41.1	(9.7)	39.7	(7.7)	36.5
Central Bank	41,390	25.6	36	25.6	(12.0)	26.3	(10.1)	23.4
Treasury and Other Govt	25,126	15.5	22	15.5	(5.6)	69.6	(3.5)	65.7
Corporate	95,326	58.9	83	58.9	22.9	18.5	25.6	15.8
Malaysia								
Total	109	100.0	34	100.0	(27.0)	(8.5)	(26.5)	(11.5)
Government	86	78.8	27	78.8	(31.1)	(8.3)	(30.7)	(11.3)
Central Bank	66	60.4	21	60.4	(33.3)	(19.9)	(32.9)	(22.5)
Treasury and Other Govt	20	18.3	6	18.3	(22.7)	75.8	(22.2)	70.0
Corporate	23	21.2	7	21.2	(6.3)	(9.2)	(5.7)	(12.2)
Philippines								
Total	212	100.0	5	100.0	(52.7)	(30.5)	(52.8)	(30.5)
Government	180	85.1	4	85.1	(59.0)	(40.8)	(59.1)	(40.9)
Central Bank	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt	180	85.1	4	85.1	(59.0)	(40.8)	(59.1)	(40.9)
Corporate	32	14.9	1	14.9	294.4	–	293.8	–
Singapore								
Total	96	100.0	74	100.0	0.1	58.3	0.9	56.7
Government	93	96.2	71	96.2	1.5	67.9	2.4	66.2
Central Bank	35	36.6	27	36.6	–	–	–	–
Treasury and Other Govt	57	59.6	44	59.6	5.1	4.0	6.0	2.9
Corporate	4	3.8	3	3.8	(26.6)	(35.7)	(26.0)	(36.4)
Thailand								
Total	2,775	100.0	88	100.0	(7.2)	(15.8)	(8.2)	(19.8)
Government	2,527	91.1	80	91.1	(9.7)	(16.5)	(10.7)	(20.5)
Central Bank	2,484	89.5	79	89.5	(0.2)	(14.3)	(1.3)	(18.3)
Treasury and Other Govt	42	1.5	1	1.5	(86.3)	(67.3)	(86.4)	(68.9)
Corporate	248	8.9	8	8.9	29.6	(7.7)	28.1	(12.1)

continued on next page

Table 4 *continued*

	LCY (billion)		US$ (billion)		Growth Rate (LCY-base %)		Growth Rate (US$-base %)	
	4Q11	% share	4Q11	% share	4Q11		4Q11	
					q-o-q	y-o-y	q-o-q	y-o-y
Viet Nam								
Total	10,549	100.0	0.5	100.0	(57.7)	(6.0)	(58.1)	(12.9)
Government	10,450	99.1	0.5	99.1	(58.1)	9.7	(58.5)	1.7
Central Bank	0	0.0	0.0	0.0	–	–	–	–
Treasury and Other Govt	10,450	99.1	0.5	99.1	(58.1)	9.7	(58.5)	1.7
Corporate	99	0.9	0.0	0.9	–	(94.2)	–	(94.6)
Emerging East Asia (EEA)								
Total	–	–	783	100.0	(7.9)	4.6	(7.2)	4.9
Government	–	–	573	73.1	(18.9)	(5.0)	(18.4)	(4.6)
Central Bank	–	–	387	49.4	(11.3)	(0.9)	(11.0)	(1.7)
Treasury and Other Govt	–	–	186	23.7	(31.3)	(12.4)	(30.5)	(10.1)
Corporate	–	–	211	26.9	46.5	43.6	48.7	43.5
EEA Less PRC								
Total	–	–	526	100.0	(12.9)	5.8	(12.5)	3.8
Government	–	–	416	79.1	(18.4)	4.4	(18.2)	2.6
Central Bank	–	–	335	63.6	(18.4)	2.5	(18.2)	0.6
Treasury and Other Govt	–	–	82	15.5	(18.6)	13.3	(18.0)	11.6
Corporate	–	–	110	20.9	16.8	11.4	18.7	8.7
Japan								
Total	48,443	100.0	630	100.0	(3.7)	(2.3)	(3.5)	3.0
Government	45,008	92.9	585	92.9	(3.3)	(1.3)	(3.1)	4.1
Central Bank	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt	45,008	92.9	585	92.9	(3.3)	(1.3)	(3.1)	4.1
Corporate	3,435	7.1	45	7.1	(8.4)	(13.4)	(8.2)	(8.6)

– = 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-Decermber 2011 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); the Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); the Philippines (Bloomberg LP); Singapore (Singapore Government Securities and Bloomberg LP); Thailand (Bank of Thailand); Viet Nam (Bloomberg LP); and Japan (Japan Securities Dealers Association).

q-o-q increases of 299% for MTNs and 1,375% for commercial bank bonds. Commercial bank bond issuance in 4Q11 consisted largely of subordinated debt bonds, which the banks can count as Tier II capital.

Issuance of corporate bonds in the Republic of Korea rose 22.9% q-o-q and 18.5% y-o-y, mostly due to a large increase in issuance by private sector corporates, as opposed to issuance by SOEs or commercial banks. Thai corporate issuance also grew an impressive 29.6% on a q-o-q basis, but fell 7.7% on a y-o-y basis.

The most dramatic increases in corporate issuance on a q-o-q basis in 4Q11 came from the still modest Philippine and Indonesian corporate bond markets, which grew 294% and 175%, respectively. The large increase in Philippine corporate issuance reflects the fact that firms have run up against their borrowing limits with domestic banks as they come under pressure to improve their capital adequacy in preparation for the Philippines' adoption of Basel III capital adequacy standards. In addition, Philippine banks are issuing Tier II subordinated debt to bolster their capital adequacy ratios.

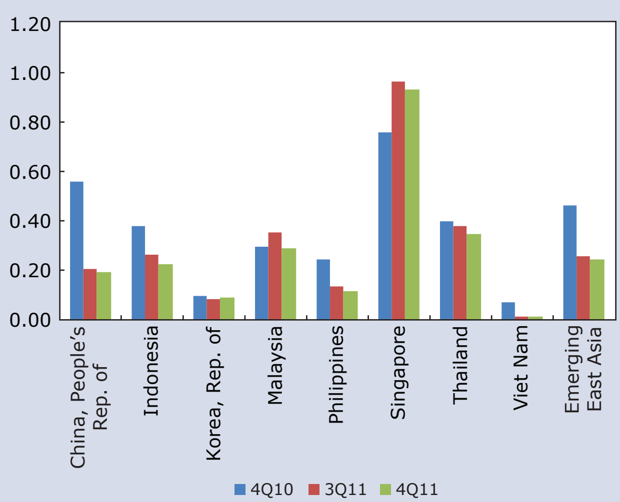
Most of the increase in issuance of Indonesian corporate bonds came from banks and specialized finance companies, and was driven by the rapid growth of the domestic economy over the last several years. The recent upgrade of Indonesia's sovereign rating by Fitch Ratings, which returned Indonesia to investment grade level in December, and Moody's, which did so in January, have also boosted corporate issuance in the early months of this year.

Money Market Trends and Bills-to-Bonds Ratios

Bills-to-bonds ratios fell in most emerging East Asian markets in 4Q11.

The total bills-to-bonds ratio fell in 4Q11 for six out of the eight emerging East Asian markets presented in **Figure 6**, which excludes Hong Kong, China due to its unusually high bills-to-bonds ratio. (However, the bills-to-bonds ratio for Hong Kong, China also fell in 4Q11). The principal reason for the decline in the region's total bills-to-bonds ratio from 0.26 in 3Q11 to 0.24 in 4Q11 was the sharp drop in the ratio of central bank bills to bonds from 0.96 in 3Q11 to 0.92 in 4Q11, signaling the continuation of a trend in place since the end of last year **(Table 5)**. Central banks and monetary authorities in the region have had less need to use sterilization as tool to mop up excess liquidity since the latter months of 2011, or have resorted to other policy tools, such as raising bank's reserve requirements in the case of the PRC. In 4Q11, there was a continued decline in the central bank bills-to-bonds ratio for the PRC, reflecting a decline in the PBOC's stock of bills outstanding from US$127 billion in 3Q11 to US$125 billion in 4Q11, while the PBOC's stock of bonds rose from US$203 billion to US$213 billion.

Figure 6: 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*.

The bills-to-bonds ratio also fell for the Bank of Thailand (BOT) from 1.12 in 3Q11 to 1.05 in 4Q11, reflecting a modest rise in the stock of BOT bonds from US$38 billion in 3Q11 to US$41 billion in 4Q11, while BOT's stock of bills remained unchanged at US$43 billion. The Bank of Korea's ratio for central bank bills to bonds actually rose in 4Q11 to 0.35 from 0.30 in 3Q11, as the bank's stock of bills rose to US$37 billion and its stock of bonds fell slightly. In addition, the Hong Kong Monetary Authority's (HKMA) ratio of bills to bonds rose to 8.46 in 4Q11 from 8.41 in 3Q11.

The overall ratio of treasury bills to bonds for the region fell marginally from 0.10 in 3Q11 to 0.09 in 4Q11, reflecting slight declines in this ratio for the PRC, the Philippines, and Singapore. In the PRC and the Philippines, the stock of treasury bills fell slightly as the stock of treasury bonds rose, while in Singapore a small rise in the stock of treasury bills was exceeded by a slightly larger increase in treasury bonds. Treasury bills exist in significant volumes only in these three markets. Meanwhile, treasury bills are either non-existent or exist only in small volumes in Hong Kong, China; the Republic of Korea; Indonesia; Malaysia; Thailand; and Viet Nam. The trends for both ratios in 4Q11—central bank bills-to-bonds and treasury bills-to-bonds—reflected the monetary and fiscal policy stances adopted by central banks and monetary authorities, and governments, respectively.

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

	4Q10		3Q11		4Q11		Government Bills-to-Bonds Ratio			Growth Rate (LCY-base %) 4Q11		Growth Rate (US$-base %) 4Q11	
	Amount (US$ billion)	% share	Amount (US$ billion)	% share	Amount (US$ billion)	% share	4Q10	3Q11	4Q11	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of (PRC)													
Total	1,521	100.0	1,334	100.0	1,362	100.0				0.7	(14.6)	2.1	(10.4)
Total Bills	546	35.9	229	17.2	218	16.0	0.56	0.21	0.19	(6.1)	(61.9)	(4.8)	(60.0)
Treasury Bills	111	7.3	102	7.6	94	6.9	0.14	0.11	0.10	(9.5)	(19.8)	(8.2)	(15.8)
Central Bank Bills	435	28.6	127	9.5	125	9.2	2.36	0.63	0.59	(3.3)	(72.7)	(2.0)	(71.3)
Total Bonds	975	64.1	1,105	82.8	1,144	84.0				2.1	11.8	3.5	17.3
Treasury Bonds	791	52.0	901	67.6	932	68.4				1.9	12.2	3.3	17.7
Central Bank Bonds	184	12.1	203	15.2	213	15.6				3.1	10.2	4.5	15.7
Hong Kong, China													
Total	87	100.0	90	100.0	91	100.0				0.9	3.9	1.1	4.0
Total Bills	75	86.1	75	83.9	75	83.3	6.21	5.22	5.00	0.2	0.5	0.4	0.6
Treasury Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Central Bank Bills	75	86.1	75	83.9	75	83.3	8.34	8.41	8.46	0.2	0.5	0.4	0.6
Total Bonds	12	13.9	14	16.1	15	16.7				4.6	24.9	4.9	25.0
Treasury Bonds	3	3.5	5	6.1	6	6.8				12.9	100.0	13.2	100.1
Central Bank Bonds	9	10.3	9	10.0	9	9.9				(0.4)	(0.9)	(0.2)	(0.8)
Indonesia													
Total	94	100.0	96	100.0	93	100.0				(0.1)	0.3	(2.2)	(0.5)
Total Bills	26	27.6	20	20.7	17	18.2	0.38	0.26	0.22	(11.8)	(33.7)	(13.7)	(34.2)
Treasury Bills	3	3.5	3	2.8	3	3.7	0.05	0.04	0.05	30.6	4.8	27.8	3.9
Central Bank Bills	23	24.1	17	17.8	14	14.6	–	–	–	(18.5)	(39.3)	(20.2)	(39.8)
Total Bonds	68	72.4	76	79.3	76	81.8				2.9	13.2	0.7	12.3
Treasury Bonds	68	72.4	76	79.3	76	81.8				2.9	13.2	0.7	12.3
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Korea, Rep. of													
Total	422	100.0	449	100.0	450	100.0				(1.8)	9.2	0.4	6.7
Total Bills	37	8.7	34	7.5	37	8.1	0.09	0.08	0.09	6.2	2.5	8.6	0.1
Treasury Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Central Bank Bills	37	8.7	34	7.5	37	8.1	0.34	0.30	0.35	6.2	2.5	8.6	0.1
Total Bonds	386	91.3	415	92.5	414	91.9				(2.5)	9.8	(0.3)	7.3
Treasury Bonds	277	65.6	301	67.2	308	68.4				(0.1)	13.8	2.1	11.2
Central Bank Bonds	109	25.8	113	25.3	106	23.5				(8.8)	(0.4)	(6.7)	(2.7)
Malaysia													
Total	145	100.0	158	100.0	157	100.0				(1.1)	12.2	(0.5)	8.5
Total Bills	33	23.0	41	26.2	35	22.3	0.30	0.35	0.29	(15.9)	8.7	(15.3)	5.1
Treasury Bills	1	1.0	1	0.9	1	0.9	0.01	0.01	0.01	0.0	(4.0)	0.7	(7.2)
Central Bank Bills	32	22.0	40	25.3	34	21.4	–	–	–	(16.4)	9.3	(15.9)	5.7
Total Bonds	112	77.0	117	73.8	122	77.7				4.1	13.2	4.8	9.5
Treasury Bonds	112	77.0	117	73.8	122	77.7				4.1	13.2	4.8	9.5
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Philippines													
Total	61	100.0	63	100.0	65	100.0				3.4	5.8	3.2	5.7
Total Bills	12	19.6	8	12.0	7	10.4	0.24	0.14	0.12	(10.5)	(44.1)	(10.6)	(44.1)
Treasury Bills	12	19.6	8	12.0	7	10.4	0.24	0.14	0.12	(10.5)	(44.1)	(10.6)	(44.1)
Central Bank Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Total Bonds	49	80.4	55	88.0	58	89.6				5.3	17.9	5.1	17.8
Treasury Bonds	49	80.4	55	88.0	58	89.6				5.3	17.9	5.1	17.8
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–

continued on next page

Table 5 *continued*

	4Q10		3Q11		4Q11		Government Bills-to-Bonds Ratio			Growth Rate (LCY-base %)		Growth Rate (US$-base %)	
										4Q11		4Q11	
	Amount (US$ billion)	% share	Amount (US$ billion)	% share	Amount (US$ billion)	% share	4Q10	3Q11	4Q11	q-o-q	y-o-y	q-o-q	y-o-y
Singapore													
Total	103	100.0	116	100.0	118	100.0				0.8	16.0	1.6	14.8
Total Bills	44	43.2	57	49.0	57	48.3	0.76	0.96	0.93	(0.8)	29.8	0.0	28.5
Treasury Bills	44	43.2	44	38.0	46	38.5	0.76	0.75	0.74	2.1	3.5	2.9	2.4
Central Bank Bills	0	0.0	13	11.0	12	9.8	–	–	–	(10.7)	–	(10.0)	–
Total Bonds	59	56.8	59	51.0	61	51.7				2.3	5.6	3.2	4.5
Treasury Bonds	59	56.8	59	51.0	61	51.7				2.3	5.6	3.2	4.5
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Thailand													
Total	167	100.0	171	100.0	167	100.0				(1.4)	5.2	(2.6)	0.3
Total Bills	48	28.6	47	27.4	43	25.7	0.40	0.38	0.35	(7.6)	(5.6)	(8.7)	(10.1)
Treasury Bills	2	1.4	4	2.4	0	0.0	0.03	0.05	0.00	–	–	–	–
Central Bank Bills	45	27.2	43	25.0	43	25.7	1.30	1.12	1.05	1.1	(0.6)	(0.1)	(5.3)
Total Bonds	119	71.4	124	72.6	124	74.3				0.9	9.6	(0.2)	4.4
Treasury Bonds	84	50.4	86	50.2	83	49.9				(2.1)	4.1	(3.2)	(0.8)
Central Bank Bonds	35	21.0	38	22.4	41	24.5				7.7	22.7	6.5	16.9
Viet Nam													
Total	6	100.0	7	100.0	7	100.0				1.8	26.0	0.8	16.8
Total Bills	0.4	6.4	0.1	1.4	0.1	1.4	0.07	0.01	0.01	0.0	(72.2)	(1.0)	(74.2)
Treasury Bills	0.4	6.4	0.1	1.4	0.1	1.4	0.07	0.01	0.01	0.0	(72.2)	(1.0)	(74.2)
Central Bank Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Total Bonds	6	93.6	7	98.6	7	98.6				1.8	32.7	0.8	23.0
Treasury Bonds	6	93.6	7	98.6	7	98.6				1.8	32.7	0.8	23.0
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Emerging East Asia (EEA)													
Total	2,606	100.0	2,484	100.0	2,511	100.0				0.1	(5.5)	1.1	(3.6)
Total Bills	821	31.5	511	20.6	489	19.5	0.46	0.26	0.24	(5.0)	(42.0)	(4.2)	(40.4)
Treasury Bills	175	6.7	162	6.5	151	6.0	0.12	0.10	0.09	(7.8)	(16.3)	(6.9)	(13.9)
Central Bank Bills	646	24.8	349	14.0	338	13.5	1.92	0.96	0.92	(3.6)	(49.0)	(3.0)	(47.6)
Total Bonds	1,785	68.5	1,973	79.4	2,022	80.5				1.3	11.5	2.5	13.3
Treasury Bonds	1,449	55.6	1,609	64.8	1,654	65.9				1.7	12.3	2.8	14.2
Central Bank Bonds	336	12.9	364	14.7	368	14.7				(0.3)	7.8	1.1	9.4
EEA Less PRC													
Total	1,085	100.0	1,150	100.0	1,149	100.0				(0.8)	8.3	(0.1)	5.9
Total Bills	275	25.4	282	24.5	271	23.6	0.34	0.32	0.31	(4.0)	0.2	(3.8)	(1.6)
Treasury Bills	64	5.9	60	5.2	57	5.0	0.10	0.08	0.08	(5.0)	(9.8)	(4.6)	(10.7)
Central Bank Bills	211	19.5	222	19.3	214	18.6	1.38	1.38	1.37	(3.8)	3.2	(3.6)	1.2
Total Bonds	810	74.6	868	75.5	878	76.4				0.3	11.1	1.2	8.4
Treasury Bonds	657	60.6	707	61.5	722	62.9				1.4	12.6	2.2	9.9
Central Bank Bonds	153	14.1	161	14.0	156	13.5				(4.5)	4.8	(3.2)	1.9
Japan													
Total	9,240	100.0	9,987	100.0	10,056	100.0				0.5	3.2	0.7	8.8
Total Bills	370	4.0	389	3.9	390	3.9	0.04	0.04	0.04	(0.0)	0.0	0.2	5.5
Treasury Bills	370	4.0	389	3.9	390	3.9	0.04	0.04	0.04	(0.0)	0.0	0.2	5.5
Central Bank Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Total Bonds	8,870	96.0	9,598	96.1	9,666	96.1				0.5	3.3	0.7	9.0
Treasury Bonds	8,870	96.0	9,598	96.1	9,666	96.1				0.5	3.3	0.7	9.0
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-December 2011 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); the Republic of Korea (Bloomberg LP); Malaysia (Bank Negara Malaysia); the Philippines (Bureau of the Treasury); Singapore (Monetary Authority of Singapore); Thailand (Bloomberg LP); Viet Nam (Bloomberg LP); and Japan (Japan Securities Dealers Association).

Foreign Holdings

Foreign holdings of government bonds leveled off in several markets in late 2011.

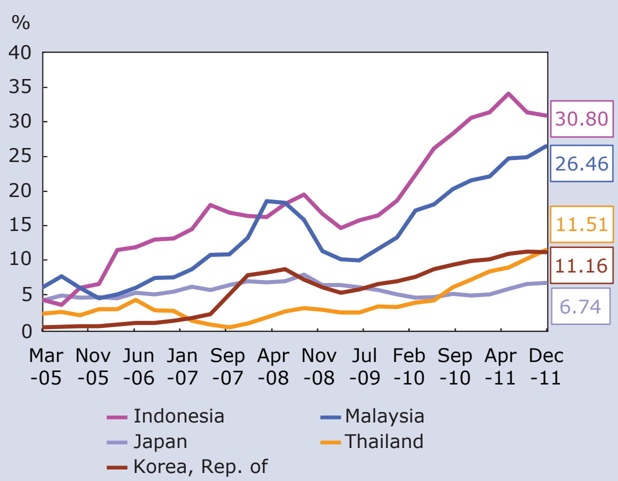
The rapid growth of foreign holdings among the region's LCY government bond markets tapered off in late 2011, except in Malaysia and Thailand. In the case of Indonesia, the share of foreign holdings fell from 31.3% at end-September to 30.8% at end-December **(Figure 7)**. The only markets to experience a rise in foreign holdings of its LCY government bonds in 4Q11 were those of Malaysia and Thailand. At end-December, foreign holdings of Thai LCY government bonds had risen to 11.5% from 10.2% at end-September. Foreign holdings of Malaysian government bonds at end-December had risen to 26.5% from 24.8% at end-September.

Foreign investors' share of the Indonesian government bond market recovered from the year-end downturn to rise to 32.1% in January, driven in part by the recent upgrade of Indonesian sovereign debt by Fitch Ratings and Moody's, before falling again to 30.4% in mid-March.

Foreign holdings of SBI fell sharply at the end of last year to 6.5% of the total from 27.4% at end-September. BI has sought to discourage foreign investors from owning SBI out of fear that large foreign holdings of these short-term securities undermines exchange rate stability. BI extended the minimum SBI holding period to 6 months in May 2011, while also reducing issuance of new SBI. BI supplies short-term liquidity to the domestic market by providing domestic deposits to replace SBI and buying government securities for its monetary operations.

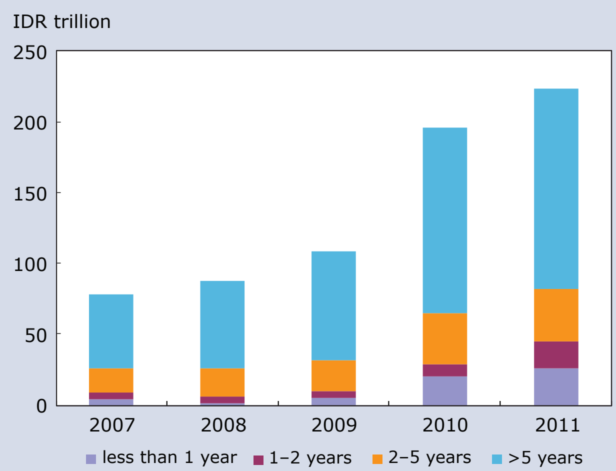
At the end of 2011, foreign holdings of Indonesian government bonds in the form of longer-dated tenors (maturities of 5 years or more) stood at IDR140.8 trillion for a 63.2% share of the total, compared with a share of 67.0% in 2010 **(Figure 8)**. Foreign holdings of shorter-dated tenors (maturities of less than 1 year) rose to IDR26.4 trillion at the end of 2011 from IDR19.9 trillion at the end of 2010 and IDR4.8 trillion at the end of 2009, representing a rise from only 4.5% in 2009 to 11.9% of the total at the end of 2011. At the same time, foreign holdings of SBI fell sharply to IDR7.8 trillion at the end of 2011 from IDR54.9 trillion at the end of 2010 **(Figure 9)**.

Figure 7: Foreign Holdings of LCY Government Bonds in Select Asian Economies (% of total)



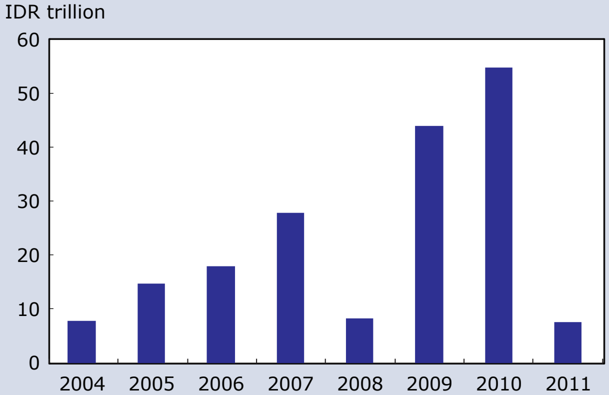
LCY = local currency.
Note: Data as of December 2011.
Source: *AsianBondsOnline*.

Figure 8: Foreign Holdings of Indonesian LCY Government Bonds by Maturity, 2007–2011



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

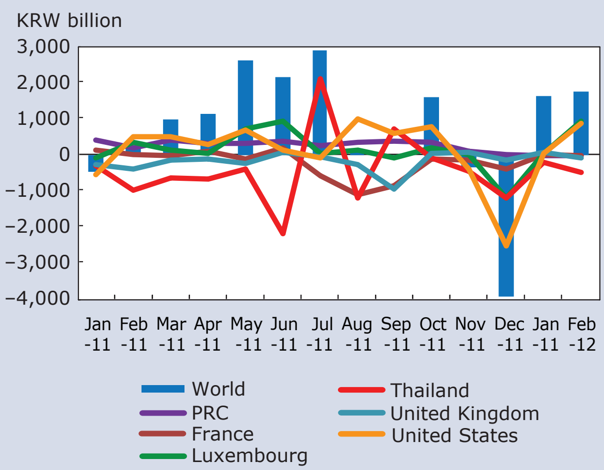
Figure 9: Non-Bank Foreign Holdings of *Sertifikat* Bank Indonesia



Source: Bank Indonesia.

Net foreign investment in the Republic of Korea's LCY bond market stood at KRW1.8 trillion in February—led by large investments from Luxembourg and the US—amid sound economic fundamentals and expectations of currency appreciation **(Figure 10)**. This was an improvement over the previous month's net bond inflows totaling KRW1.6 trillion, following significant net bond outflows of KRW2.6 trillion in 4Q11 on the back of massive redemptions in December.

Figure 10: Net Foreign Investment by Country in LCY Bonds in the Republic of Korea, January 2011–February 2012



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

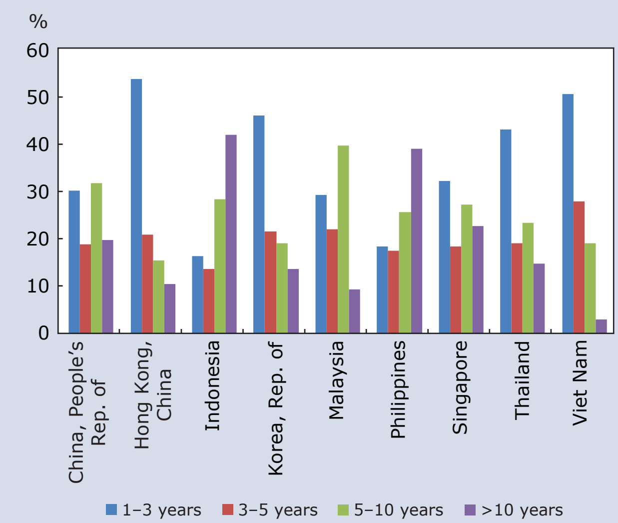
Maturity Profiles

The maturity profiles of the region's government bond markets generally improved between mid-year and the end of 2011, while maturity profiles for most corporate bond markets remained largely unchanged.

Government bond maturities remained more concentrated at the short-end of the curve at the end of 2011 in the markets of Hong Kong, China; the Republic of Korea; Thailand; and Viet Nam. These four markets each had 15% or less of their long-term bonds in maturities of more than 10 years, and 40% or more of their bonds outstanding in maturities of 1–3 years **(Figure 11a)**. Countries with a greater concentration of maturities at the short-end of the curve are more vulnerable to potential concerns about market liquidity. However, there are few such liquidity concerns at the present time.

The four markets with 20% or more of their government bonds outstanding in maturities of 10 years or more were Indonesia (42%), the Philippines (39%), Singapore (23%), and the PRC (20%). These four markets—plus Malaysia—each

Figure 11a: Government Bonds Maturity Profiles
(individual maturities as % of total)



Source: *AsianBondsOnline*.

had 25% or more of their bonds outstanding in maturities of 5–10 years, resulting in a maturity structure in which 50% or more of all bonds (49% in the case of Malaysia) were carried in maturities of 5 years or more.

A consistent comment from the most recent *AsianBondsOnline* Bond Market Liquidity Survey was that in most markets investors are seeking a wider range of investable government bonds (See Asia Bond Monitor, November 2011). Furthermore, market participants acknowledged that most governments in the region have made good progress over the last year in extending the maturity structures of their bond stocks, resulting in an increasingly large share of new bonds being issued in maturities greater than 10 years, as discussed below.

Some of the most noticeable improvements in government bond maturity structures have been the following:

(i) Thailand's recent issue of THB5 billion of 50-year bonds in early March encouraged investors seeking additional longer-dated issues in the future.

(ii) Singapore issued its maiden 30-year bond for SGD1.2 billion at the end of March.

(iii) In a series of bond exchanges starting in December 2010, the Philippines increased the percentage of its bonds with maturities of more than 10 years to 39% at the end of 4Q11 from less than 10% at the end of 4Q09.

(iv) The Republic of Korea increased the portion of its bonds in maturities greater than 10 years from 9.0% at the end of 4Q10 to 13.6% at the end of 4Q11. The government converted settlement of Korean Treasury Bond (KTB) futures contracts from a physical to a cash basis last year to make them more attractive to investors. This contributed to an increase in 10-year KTB futures contracts' share of total contracts traded from only 1% in 1Q11 to 17% in 4Q11. During the first 3 months of 2012, the percentage of 10-year KTB futures contracts traded as a share of the total increased to 23%.

(v) The proportion of Indonesian government bonds with maturities greater than 10 years rose from 37% at the end of 4Q10 to 42% at the end of 4Q11, while the share of government bonds with maturities of 1–3 years shrunk from 20% of the total in 4Q10 to 16% in 4Q11.

(vi) The share of Malaysian government bonds with maturities greater than 10 years increased slightly in 2011 from 6% at the beginning of the year to 9% at the end of 4Q11. Malaysian government bonds with maturities of 5–10 years also increased from 35% of the total at the end of 4Q10 to 40% at the end of 4Q11. Yet, Malaysian government bond issuance with maturities of more than 10 years remains constrained by the fact that Government Investment Issues (GII)—an Islamic security—stood at MYR110 billion at the end of 2011, or approximately one-third of total Malaysian government bonds outstanding, and are issued only in maturities of 1–10 years.

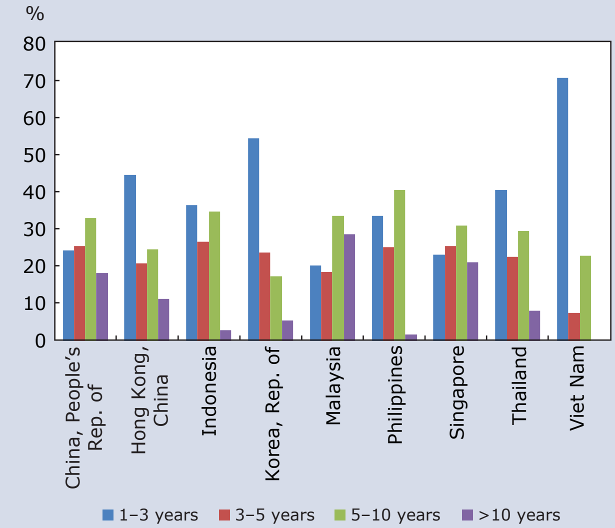
(vii) Viet Nam reduced the portion of its government bonds in maturities of 1–3 years from nearly 60% of the total at the end of 2Q10 to 50% at the end of 4Q11, while increasing the proportion of bonds in maturities of 3–10 years from 35% to 47% over the same period.

Maturity Profiles for Corporate Bonds

The maturity profiles of the corporate bond markets of emerging East Asia vary in structure **(Figure 11b)**:

(i) Among the region's corporate bond markets, Indonesia, the Republic of Korea, the Philippines, Thailand, and Viet Nam's corporate bond markets have a much larger share

Figure 11b: Corporate Bonds Maturity Profiles
(individual maturities as % of total)



Source: *AsianBondsOnline*.

of their maturities in the 1–3 year range. Furthermore, the proportion of corporate bonds in these four markets with maturities greater than 10 years is small.

(ii) The shares of Hong Kong, China; Malaysia; PRC; and Singapore corporate bonds with maturities of 1–3 years are much smaller than the respective shares for government bonds. Malaysia, however, has an extraordinarily large amount of its bonds (28%) issued in maturities greater than 10 years. The shares of Singapore; the PRC; and Hong Kong, China corporate bonds with maturities greater than 10 years are broadly comparable to the respective shares of government bonds.

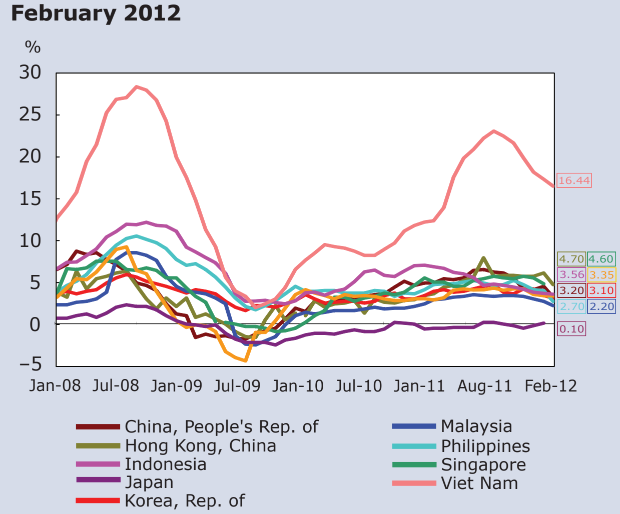
(iii) The maturity structure of the Viet Nam corporate bond market is unique in the region. At the end of 4Q11, almost 70% of Viet Nam's corporate bonds outstanding carried maturities of 1–3 years, while there were no Viet Nam corporate bonds with maturities greater than 10 years. However, this structure is a distinct improvement over the one that existed at the end of 2010, when 92% of Viet Nam's corporate bonds outstanding had maturities of 1–3 years. There also were no Vietnamese corporate bonds with maturities greater than 5 years at the end of 2010, while at the end of 2011, 23% of Viet Nam's corporate bonds outstanding had maturities of 5–10 years.

Government Bond Yield Curves

Government bond yield curves in emerging East Asia flattened in most markets in 2011 on the back of moderating inflation and growth rates, and improving sovereign rating prospects.

The region's quarterly GDP growth rates generally moderated in 2011, while still remaining robust. In some cases, growth trended upwards even as the recent announcement of Premier Wen Jia Bao that the PRC government's GDP growth forecast for 2012 of 7.5% drew global attention and dampened commodity prices. This moderating trend has contributed to reduced inflationary pressures **(Figure 12)**, which had been considered the major risk to the region's economic outlook at mid-year 2011, and a flattening of emerging East Asian government bond yield curves.

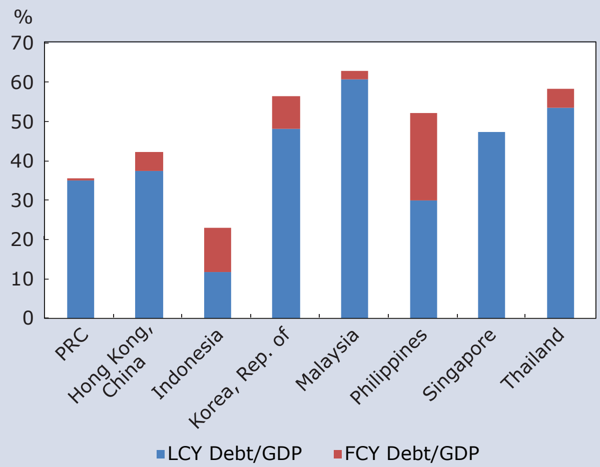
Figure 12: Headline Inflation Rates, January 2008–February 2012



Note: Inflation rate for Japan as of January 2012.
Source: Bloomberg LP.

Another factor supporting the flattening of the region's government bond yield curves in 2011 is the very moderate debt burden of emerging East Asian governments. The ratio of total government debt to GDP is around 50% or less for most governments in the region. The only governments with ratios significantly above 50% have strong credit ratings, such as the Republic of Korea, Malaysia, and Thailand. Furthermore, foreign-currency-denominated debt is a relatively small portion of total government debt across the region **(Figure 13)**. Two of the three international credit rating agencies have acknowledged this with an upgrade of Indonesian sovereign debt to investment grade. Meanwhile, the prospect for an upgrade of the Philippines' credit rating, which still lies below investment grade, is improving **(Table 6)**. For example, S&P upgraded its outlook for the Philippines to positive from stable in December. Moody's and Fitch have not taken any ratings action on the Philippines, although recent statements from Moody's have acknowledged the progress the Philippines has made with its debt consolidation efforts.

Figure 13: Ratios of LCY and FCY Government Debt to GDP (as of end-September 2011)



FCY = foreign currency, GDP = gross domestic product, LCY = local currency, PRC = People's Republic of China.
Source: *AsianBondsOnline* and CEIC.

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	A1	A+
Malaysia	A–	A3	A–
Philippines	BB	Ba2	BB+
Singapore	AAA	Aaa	AAA
Thailand	BBB+	Baa1	BBB

Source: Rating Agencies.

Yield Curve Movements in 2011

Most government bond yield curves flattened dramatically between the end of 2010 and the end of 2011 **(Figure 14)**. The most impressive examples of this trend were the government bond yield curves of Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; and Singapore. The government bond yield curves of the PRC, Thailand, and Viet Nam, however, shifted upward between end-December 2010 and end-September 2011. The yield curves for the PRC and Thailand then shifted downward by end-December to join in the trend for the region as a whole. Viet Nam's yield curve remained roughly at its end-September levels at end-December.

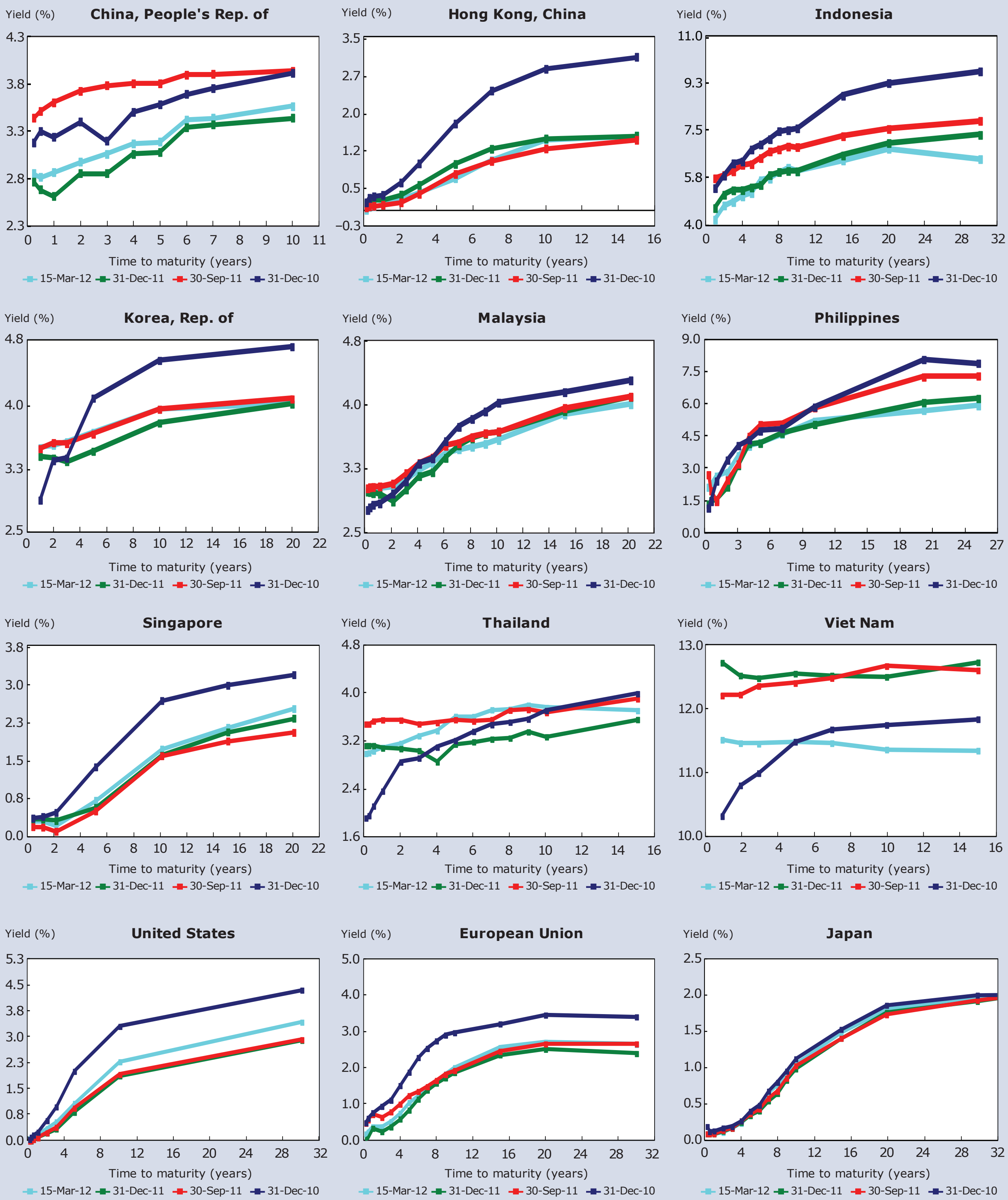
The main reasons for the upward shift of the yield curves for the PRC, Thailand, and Viet Nam between end-December 2010 and end-September 2011 include the following:

(i) The upward movement of the PRC's yield curve between end-December 2010 and end-September 2011 reflected six increases in the PBOC's reserve ratio and three hikes in the PBOC's benchmark interest rate, bringing the 1-year lending rate to 6.56% and the 1-year deposit rate to 3.50%.

(ii) Although inflation tapered in the PRC after reaching a 37-month high of 6.5% y-o-y in July, before falling to 6.2% in August and 6.1% in September, it remained at a high level.

(iii) Thailand's yield curve shifted upward from the short-end to the belly of the curve between end-December 2010 and end-September

Figure 14: Benchmark Yield Curves—LCY Currency Bonds



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

2011 due to concerns about inflationary pressures and the prospect of a hike in BOT's policy rate, the 1-day repurchase rate. On 13 July, BOT raised its policy rate 25bps to 3.25% before subsequently returning it to 3.00% on 25 January.

(iv) The dramatic rise of Viet Nam's yield curve during the first 9 months of 2011 reflected growing inflationary pressures, which drove Viet Nam's inflation rate to 21.6% in October, the highest level in emerging East Asia, and led to a hike in the State Bank of Viet Nam's (SBV) refinancing rate from 14% to 15%. This move was the fifth increase of the refinancing rate in 2011.

Yield Curve Movements in 1Q12

Between end-December 2011 and 15 March, the yield curves for Hong Kong, China; Indonesia; and Viet Nam shifted downward. The most dramatic movements came from Viet Nam, where yields fell more than 100 bps across most of the curve, and Indonesia, where yields fell 20 bps–88 bps across most of the curve. The movements of the Malaysian and Philippine yield curves between end-December and 15 March might be characterized as more of a conventional flattening, with yields at the long-end of the curve falling while yields at the short-end of the curve rose substantially.

In the case of Malaysia, yields at the long-end of the curve fell 4 bps–12 bps for most maturities, while yields from the short-end to the belly of the curve rose 2 bps–16 bps. The case of the Philippines, however, was more dramatic, with short-term yields rising by as much as 100 bps, while yields at the long-end of the curve fell about 35 bps. The disparity between movements in Philippine short- and long-dated yields reflects in large part a sharp reduction in issuance of short-dated treasury bills as a result of the government executing a very large debt exchange at the end of last year to consolidate its bonds in longer-dated maturities. This move involved issuing substantial amounts of new bonds at the long-end of its yield curve.

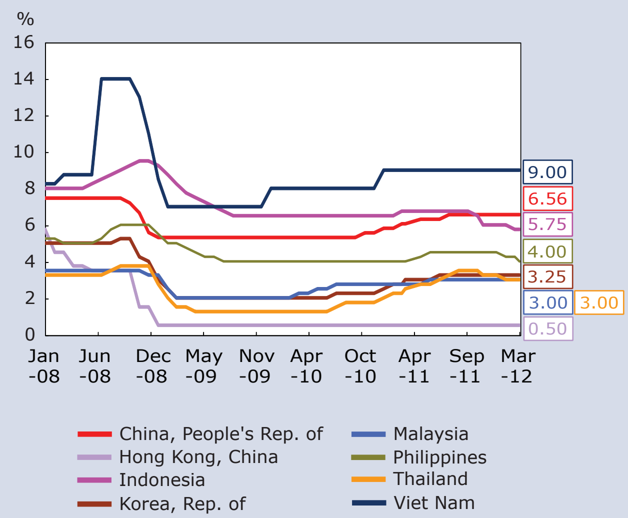
The overall downward trends for yield curves reflect the fact that an earlier bias toward the tightening of monetary policies in the region—evident this time last year—has been replaced thus far in 2012 by a trend of progressive loosening of monetary policies and a reduction of policy interest rates **(Figure 15)**. Examples that support this new trend include the following:

(i) BOT announced a 25 bps cut in its policy rate to 3.0% on 25 January, which was followed by a BI announcement on 9 February of a 25 bps cut in its policy rate to 5.75%. BOT and BI had both previously cut their policy rates by 25 bps and 50 bps, respectively, in November of last year.

(ii) More recently, Bangko Sentral ng Pilipinas (BSP) cuts its policy rates on 1 March for the second time this year by 25 bps each, reducing the overnight lending (repurchase) rate to 4.0% from 4.25%, and the overnight lending (repurchase) rate to 6.0% from 6.25%.

(iii) The SBV reduced its discount rate, refinancing rate, and overnight rate twice this year by 100 bps each in March and April.

Figure 15: Policy Rates, 1 January 2008–15 March 2012



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

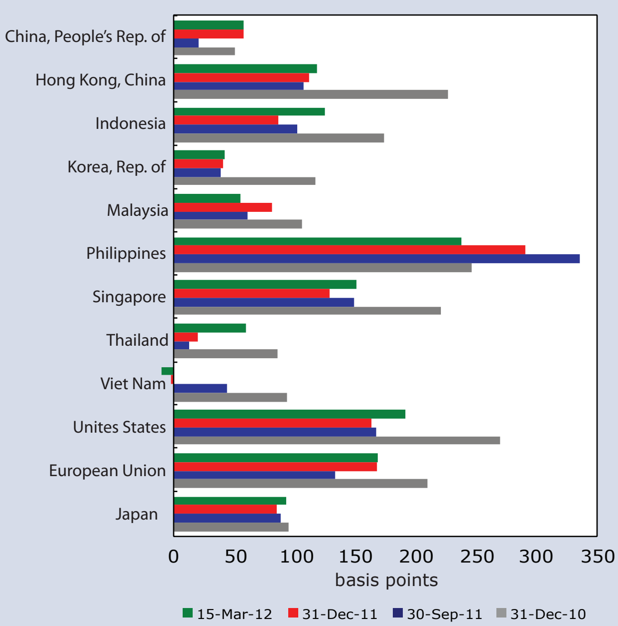
Bucking this developing trend, the yield curves for Thailand and Singapore steepened between the end of 2011 and 15 March. Singapore's yields fell 5 bps–10 bps at the short-end of the curve, while rising as much as 19 bps at the long-end. Thai yields fell 9 bps–13 bps at the short-end of the curve, while rising almost 50 bps for some maturities at the long-end, although the yield for the 15-year maturity at the end of the Thai curve rose by only 15 bps. The rise in long-term yields in Thailand may have been driven by market expectations of substantial government bond issues this year to finance the rebuilding of infrastructure following the catastrophic floods of 2011. The fall in Singapore's yields at the short-end of its curve seems to reflect the recent easing of inflationary pressures.

The yield curves for the PRC and the Republic of Korea also shifted upward between the end of 2011 and 15 March. PRC monetary authorities are still concerned about underlying inflationary pressures and have been reluctant to reduce their policy rates. The decision of The Bank of Korea's Monetary Policy Committee to keep its base rate—the 7-day repurchase rate—steady at 3.25% on 8 March also reflects concerns about inflationary pressures, which appear to be a factor sustaining the upward pressure on government bond yields in the Republic of Korea.

The effects of these trends on the yield spread between 2- and 10-year government bonds are shown in **Figure 16**. Yield spreads fell in most markets in 2011 compared with their end-2010 levels, with the exception of the PRC and the Philippines. However, a more complicated pattern emerged for the period between end-December and 15 March. Yield spreads over this period were unchanged in the PRC and rose in Hong Kong, China; Indonesia; the Republic of Korea; Singapore; and Thailand. On the other hand, yield spreads fell over this period in Malaysia, the Philippines, and Viet Nam.

Also supporting the strong performance of the region's government bond markets in the early months of 2012 has been the strengthening of regional exchange rates—a key factor in attracting foreign funding **(Table 7)**. Any sustained trend of further strengthening in the region's exchange rates will likely spur additional inflows and put downward pressure on yield curves.

Figure 16: Yield Spreads Between 2- and 10-Year Government Bonds



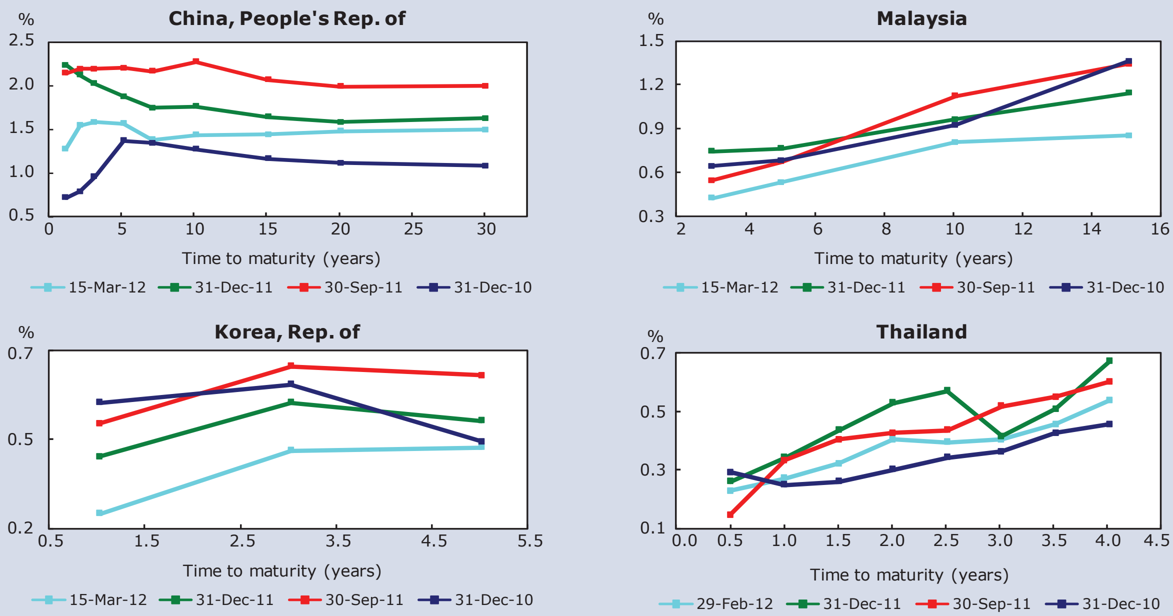
Source: Based on data from Bloomberg LP.

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

Currency	2010	2011	As of 15 March 2012	
	y-o-y	y-o-y	y-o-y	q-o-q
CNY	3.3	4.8	3.8	(0.5)
HKD	(0.2)	0.1	0.4	0.1
IDR	4.4	(0.8)	(4.5)	(1.2)
KRW	3.3	(2.3)	0.6	2.2
MYR	11.2	(3.4)	0.2	3.6
PHP	5.2	(0.1)	1.8	1.9
SGD	9.0	(1.0)	1.6	2.7
THB	10.4	(4.8)	(1.1)	2.6
VND	(5.4)	(7.6)	0.2	1.0
JPY	13.7	5.3	(3.5)	(8.3)

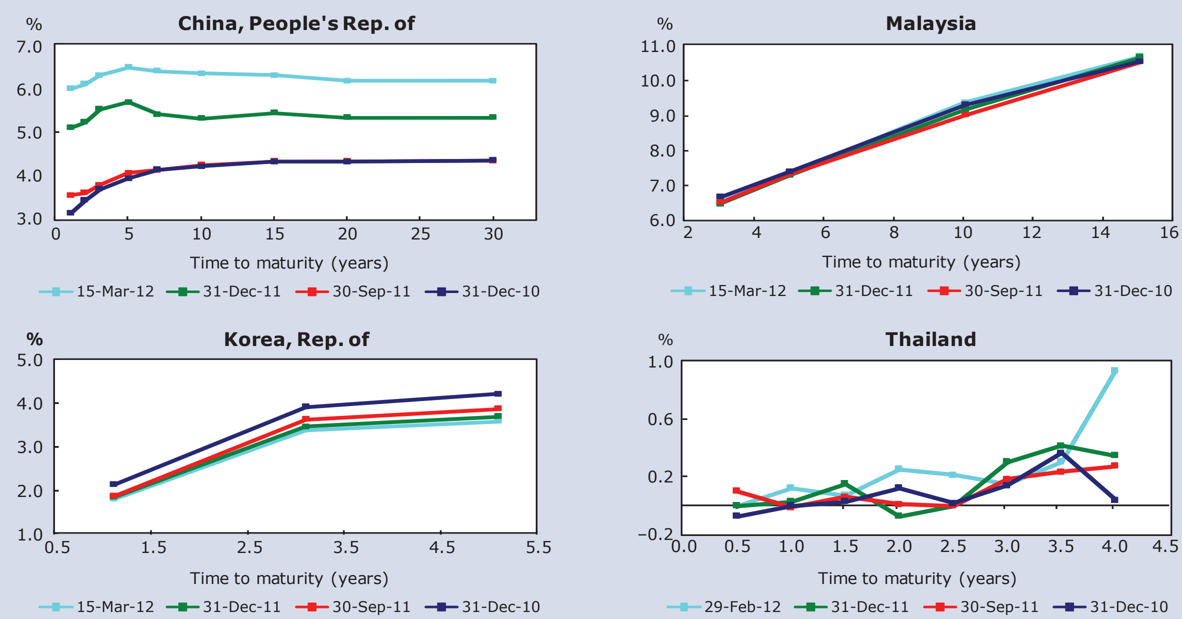
q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Appreciation (depreciation) is equal to –LN(end-of-period rate/start-of-period rate).
2. For 15 March 2012 q-o-q figures, appreciation (depreciation) is equal to –LN(15 March 2012 rate/end-2011 rate).
Source: Bloomberg LP.

Figure 17a: 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 17b: 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).

Corporate Bond Credit Spreads

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

High-grade credit spreads—LCY corporates rated AAA vs. government bonds—have tightened since end-September 2011 over most of the curve in the PRC, Republic of Korea, Malaysia, and Thailand **(Figure 17a)**. The most dramatic movement occurred in the PRC, Republic of Korea, and Malaysia, where in each instance the entire credit spread curve shifted downward between end-September and 15 March.

Malaysian high-grade credit spreads declined along the entire curve between end-September and 15 March. Credit spreads for Thai high-grade bonds had shifted downward by end-February from their levels at the end of 2011, but were still above their end-December 2010 levels.

The movements of credit spreads for high-yield bonds—lower rated corporates vs. AAA corporates—were more complex **(Figure 17b)**. Credit spreads for the PRC's high-yield bonds at 15 March were almost 200 bps higher than at end-September 2011. Credit spreads on high-yield bonds in the Republic of Korea, on the other hand, have trended downward since the end of 2010, albeit by rather modest amounts. Credit spreads for Malaysian high-yield bonds have remained roughly unchanged since end-September, rising 3 bps–50 bps depending on their maturity.

Finally, credit spreads for Thai high-yield corporate bonds have moved upward slightly since end-September, except for maturities of 3 years. Yield movements for Thai high-yield corporate bonds are generally the most erratic in this class of instrument.

G3 Currency Issuance and Bonds Outstanding

G3 currency issuance in emerging East Asia fell 14.0% y-o-y in 2011, although G3 bonds outstanding rose 13.5%. The ratio of G3 currency bonds to LCY bonds remained well under 15% in most markets in the region.

G3 currency issuance in emerging East Asia in 2011 totaled US$75 billion, a decline of USD12 billion, or 14%, from 2010. The largest declines occurred in the markets of Hong Kong, China; the Philippines; and Singapore. On the other hand, issuance in the first several months of the year has been extremely robust, reaching US$28.4 billion as of 15 March **(Table 8)**.

At the end of 4Q11, the total amount of G3 currency bonds outstanding amounted to US$415 billion **(Table 9)**. This amount represents a 2.1% increase over G3 currency bonds outstanding at the end of 2Q11 and a 13.5% increase from the end of 4Q10. The most rapidly growing segment of this market has been bonds outstanding issued by banks and financial institutions. The largest amounts of G3 currency government bonds outstanding at the end of 4Q11 were found in the Philippines (US$34 billion) and Indonesia (US$22 billion). The largest amounts of G3 currency corporate bonds outstanding at the end of 4Q11 were in the Republic of Korea (US$53 billion) and the PRC (US$47 billion). Despite the rapid growth of G3 currency bond issuance over the last several years, the value of G3 currency bonds outstanding remains quite small compared with LCY bonds in all markets except for Hong Kong, China **(Figure 18)**. (This was still the case even after removing LCY bonds issued by central banks and monetary authorities from the data used to compile Figure 18.)

Table 8: G3 Currency Bond Issuance, 2011 and 1 January–15 March 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 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**	
HAGL 9.875% 2016	90	20-May-11
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—15 March 2012		
Issuer	**US$ (million)**	**Issue Date**
China, People's Rep. of	**1,379**	
China Overseas Finance 4.875% 2017	500	15-Feb-12
Shui On Development 9.75% 2015	400	16-Feb-12
Others	479	
Hong Kong, China	**9,329**	
Hutch Whampoa 4.625% 2022	1,000	13-Jan-12
Wharf Finance 4.625% 2017	900	8-Feb-12
Henderson Land 4.75% 2017	700	14-Feb-12
Nan Fung Treasury 5.25% 2017	600	20-Jan-12
Wheelock Finance 4.75% 2017	535	23-Feb-12
Hutch Whampoa 3.5% 2017	500	3-Feb-12
Hutch Whampoa 4.625% 2022	500	3-Feb-12
Sun Hung Kai Properties 4.5% 2022	500	14-Feb-12
Wiseyear Holdings 5.0% 2017	500	15-Feb-12
Others	3,594	
Indonesia	**2,896**	
Indonesia (sovereign) 5.25% 2042	1,750	17-Jan-12
Berau Coal Energy 7.25% 2017	500	13-Mar-12
Listrindo 6.95% 2019	500	21-Feb-12
Others	146	
Korea, Rep. of	**8,105**	
Korea Eximbank 4.0% 2017	1,250	11-Jan-12
Korea Eximbank 5.0% 2022	1,000	11-Jan-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
Hyundai Capital Services 3.5% 2017	500	13-Mar-12
KT Corp. 3.875% 2017	350	20-Jan-12
Busan Bank 4.125% 2017	300	9-Feb-12
Kookmin Bank (*samurai*) 1.96% 2013	284	8-Feb-12
Korea National Oil Corp. 2.717% 2015	250	3-Feb-12
Others	1,971	
Malaysia	**400**	
Maybank 3.0% 2017	400	10-Feb-12
Philippines	**2,250**	
Philippines (sovereign) 5.0% 2037	1,500	13-Jan-12
BDO Unibank 4.5% 2017	300	16-Feb-12
SM Investments 1.625% 2017	250	15-Feb-12
RCBC 5.25% 2017	200	30-Jan-12
Singapore	**4,090**	
DBS 2.35% 2017	1,000	28-Feb-12
OCBC Bank 1.625% 2015	1,000	13-Mar-12
United Overseas Bank 2.25% 2017	750	7-Mar-12
SingTel Group 2.375% 2017	700	8-Mar-12
Others	640	
Thailand	**0**	
Viet Nam	**0**	
Emerging East Asia Total	**28,449**	
Memo Items:		
India	**2,627**	
Reliance Holdings 5.4% 2022	1,000	14-Feb-12
Axis Bank 5.125% 2017	500	5-Mar-12
Reliance Holdings 5.4% 2022	500	28-Feb-12
Others	627	
Sri Lanka	**0**	

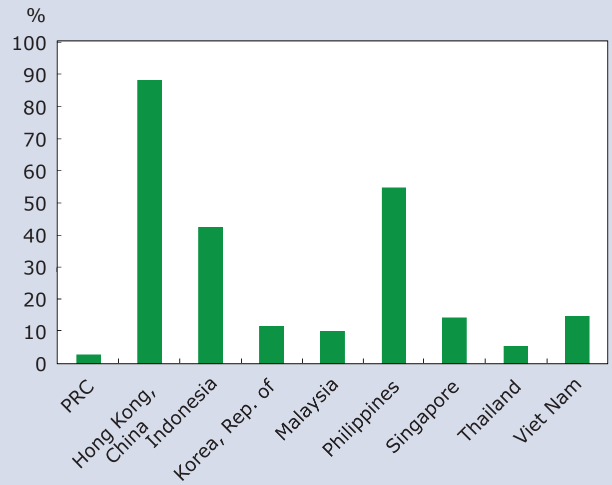
Note: Not included in this table is the Philippines' sovereign Global Peso bond, a PHP54.8 billion (US$1.2 billion) 25-year bond issued in January 2011.
Source: Bloomberg LP, newspaper and wire reports.

Table 9: G3 Currency Bonds Outstanding in Emerging East Asia (US$ billion)

	4Q10	% share	2Q11	% share	4Q11	% share
China, People's Rep. of (PRC)						
Total	49	100.0	72	100.0	75	100.0
Government	10	21.1	11	16.0	12	15.3
Banks and FIs	8	15.9	14	19.5	17	22.7
Corporate	31	63.0	46	64.5	47	61.9
Hong Kong, China						
Total	63	100.0	72	100.0	74	100.0
Government	2	2.6	2	2.2	2	2.2
Banks and FIs	26	42.0	32	44.4	35	47.4
Corporate	35	55.5	39	53.4	37	50.4
Indonesia						
Total	36	100.0	39	100.0	41	100.0
Government	18	50.6	21	52.5	22	53.2
Banks and FIs	3	8.0	6	15.7	6	14.1
Corporate	15	41.3	12	31.8	13	32.7
Korea, Rep. of						
Total	117	100.0	120	100.0	125	100.0
Government	19	16.0	19	16.2	21	16.7
Banks and FIs	48	41.1	49	40.7	51	40.6
Corporate	50	42.9	52	43.1	53	42.7
Malaysia						
Total	24	100.0	23	100.0	23	100.0
Government	3	12.7	3	13.0	3	14.2
Banks and FIs	5	20.1	5	21.8	5	22.0
Corporate	16	67.2	15	65.1	15	63.7
Philippines						
Total	39	100.0	42	100.0	42	100.0
Government	32	82.4	34	80.7	34	80.9
Banks and FIs	2	4.2	1	3.0	1	2.8
Corporate	5	13.4	7	16.4	7	16.4
Singapore						
Total	28	100.0	28	100.0	25	100.0
Government	0	0.0	0	0.0	0	0.0
Banks and FIs	18	62.5	17	60.0	16	62.9
Corporate	11	37.5	11	40.0	9	37.1
Thailand						
Total	8	100.0	8	100.0	8	100.0
Government	1	18.6	1	14.3	1	17.0
Banks and FIs	3	38.9	3	44.0	3	41.5
Corporate	3	42.5	3	41.6	3	41.5
Viet Nam						
Total	2	100.0	2	100.0	2	100.0
Government	2	97.2	2	95.6	2	94.1
Banks and FIs	0	0.0	0	0.0	0	0.0
Corporate	0.1	2.8	0	4.4	0.1	5.9
Emerging East Asia						
Total	366	100.0	407	100.0	415	100.0
Government	88	24.1	94	23.0	97	23.3
Banks and FIs	112	30.6	128	31.4	134	32.3
Corporate	166	45.3	185	45.6	185	44.5
Less PRC:						
Total	317	100.0	335	100.0	340	100.0
Government	78	24.5	82	24.6	85	25.0
Banks and FIs	104	32.9	114	33.9	117	34.4
Corporate	135	42.5	139	41.5	138	40.6

FIs = financial institutions.
Source: *AsianBondsOnline* and Bloomberg LP.

Figure 18: Ratios of G3 to LCY Bonds Outstanding



LCY = local currency, PRC = People's Republic of China.
Notes:
1. G3 currency bonds outstanding comprise the absolute amount of bonds denominated in G3 currencies: US dollar, euro, and Japanese yen.
2. LCY bonds outstanding comprise the absolute amount of LCY bonds, both government and corporate, but exclude bonds issued by central banks and monetary authorities.

Source: *AsianBondsOnline* and Bloomberg LP.

Market Returns

Returns on emerging East Asia's LCY bonds were very buoyant in 2011, but have since moderated in 2012.

The Pan-Asian Index rose 6.8% on a US$ unhedged basis in 2011 **(Table 10)**. In the current year through 15 March, the Pan-Asian Index rose only 1.7% at a time when the MSCI Equity Market Index for Asia rose 15.0% in US$ terms **(Table 11)**. Indonesian bonds were the best performers in 2011 as a whole, yielding a return of 18.4% on a US$ unhedged basis and 19.7% on an LCY total return basis. Philippine bonds were the second best performers, yielding an almost identical return of 14.7% on both a US$ unhedged and LCY total return basis.

In most markets in the region there was little difference in 2011 between US$ unhedged and LCY returns. The only exceptions were in the PRC, Malaysia, and Thailand. US$ unhedged returns in the PRC were 9.9%, or almost double LCY returns

Table 10: 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	5.79	1.5	5.1	5.4	9.9	0.2	(0.2)
Hong Kong, China	4.23	2.0	1.8	5.2	5.2	0.4	0.5
Indonesia	6.87	19.3	23.7	19.7	18.4	2.2	1.5
Korea, Rep. of	4.28	8.0	10.6	6.2	4.7	0.2	2.4
Malaysia	4.74	5.2	15.6	4.7	1.8	0.9	4.8
Philippines	6.88	14.3	19.7	14.8	14.7	2.4	4.3
Singapore	5.68	2.5	11.3	6.3	5.0	0.3	2.8
Thailand	4.81	5.4	15.4	4.9	0.3	(1.1)	1.4
Pan-Asian Index	5.16	–	10.2	–	6.8	–	1.7
HSBC ALBI	7.57	–	11.5	–	4.9	–	2.7
US Govt. 1–10 years	4.04	–	5.3	–	6.8	–	(0.8)

– = 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 15 March 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 15 March 2012.
Source: *AsianBondsOnline* and Bloomberg LP.

Table 11: 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)	14.7	14.8
Hong Kong, China	20.0	19.7	(18.5)	(18.4)	17.2	17.3
Indonesia	25.8	31.2	4.7	4.0	2.9	1.8
Korea, Rep. of	22.1	25.3	(11.5)	(12.8)	13.4	15.9
Malaysia	19.3	32.5	(0.2)	(2.9)	3.3	7.1
Philippines	23.5	30.3	(3.1)	(3.2)	16.0	18.2
Singapore	8.1	18.4	(20.0)	(21.0)	15.5	18.4
Thailand	36.4	50.8	(1.2)	(5.6)	15.7	18.6
Far East ex-Japan Index	12.5	16.7	(15.6)	(16.8)	13.5	15.0
MSCI US	–	13.2	–	(0.1)	–	11.8

– = 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 15 March 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.

of 5.4%. Meanwhile, US$ unhedged returns were almost negligible in the case of Thailand and a little under 2% for Malaysia, compared with LCY total returns of just under 5% in both of these markets.

Through 15 March, the rankings for returns in individual markets had changed considerably from the previous year. Malaysia emerged as the market with the highest return on a US$ unhedged basis (4.8%), followed by the Philippines (4.3%), and Singapore (2.8%). Indonesia fell to fourth place (2.4%), while US$ returns for the PRC and Hong Kong, China bond markets were negligible. On an LCY basis, however, the Philippines and Indonesia retained their positions from 2011 as the markets with the two highest returns—albeit in reverse order—at 2.4% and 2.2%, respectively.

Equity returns, as reflected in the MSCI index, dramatically reversed their weak performance in 2011 in the first several months of the year through 15 March. The highest returns on a US$ basis through 15 March were found in Thailand (18.6%); Singapore (18.4%); the Philippines (18.2%); and Hong Kong, China (17.3%). In LCY terms, however, Hong Kong, China (17.2%) and the Philippines (16.0%) showed the highest returns, followed by Thailand (15.7%) and Singapore (15.5%).