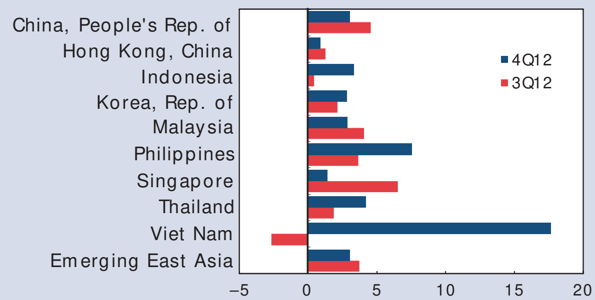
Bond Market Developments in the Fourth Quarter of 2012

Size and Composition

Total bonds outstanding in emerging East Asia's LCY bond market grew 3.0% q-o-q and 12.1% y-o-y to reach US$6.5 trillion at the end of 4Q12, primarily due to strong growth in the region's corporate bond sector in the last quarter of the year.[3]

The quarter-on-quarter (q-o-q) growth rate for emerging East Asia's local currency (LCY) bond market in 4Q12 was 3.0%, down slightly from 3.7% in 3Q12 **(Figure 1a)**. The five most rapidly growing markets in 4Q12 on a q-o-q basis were Viet Nam (17.6%), the Philippines (7.5%), Thailand (4.2%), Indonesia (3.3%), and the People's Republic of China (PRC) (3.0%) **(Table 1)**.

Figure 1a: Growth of LCY Bond Markets
(q-o-q, %)



LCY = local currency, q-o-q = quarter-on-quarter.
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 figures are based on end-December 2012 currency exchange rates and does not include currency effects.
4. For Singapore, corporate bonds outstanding quarterly figures based on *AsiaBondsOnline* estimates.

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

Some of the rapid growth of the Vietnamese and Philippine bond markets reflected the fact that these are the two smallest markets in the region, and thus have great potential for further growth and development, especially in their nascent corporate bond sectors. The growth of these two markets' government bond sectors, however, was the result of significant borrowing requirements in 2012. The budget deficit for Viet Nam was equal to 6.2% of gross domestic product (GDP) in the first 9 months of the year. The Philippine budget deficit for full-year 2012 is 2.3% of GDP, up slightly from 2.0% in 2011, reflecting, in part, an uptick in infrastructure investment in 2012.

The bond markets of the Republic of Korea and Malaysia were among the slower growing markets in the region in 4Q12, with both expanding only 2.8% q-o-q. The weakest q-o-q growth rate was that of Hong Kong, China, which came in at 0.9%, down slightly from 1.3% in 3Q12.

The slight q-o-q decline in the region's 4Q12 growth rate was driven by a sharp decline in the region's growth rate for government bonds to 1.4% from 3.5% in 3Q12. Much of this downturn, however, was offset by a substantial increase in the corporate sector's q-o-q growth rate to 6.2% in 4Q12 from 4.2% in 3Q12.

The region's five most rapidly growing markets on a y-o-y basis in 4Q12 were Viet Nam, the Philippines, Malaysia, Thailand, and Singapore, which grew 42.7%, 20.5%, 19.9%, 19.8%, and 19.4%, respectively **(Figure 1b)**. The growth of Viet Nam's bond market was driven entirely by its government bond market, which grew 54.6% y-o-y at the same time its corporate bond

[3] 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

	4Q11		3Q12		4Q12		Growth Rate (LCY-base %)				Growth Rate (US$-base %)			
	Amount (US$ billion)	% share	Amount (US$ billion)	% share	Amount (US$ billion)	% share	4Q11		4Q12		4Q11		4Q12	
							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	3,392	100.0	3,667	100.0	3,811	100.0	3.1	5.9	3.0	11.2	4.5	11.1	3.9	12.4
Government	2,540	74.9	2,724	74.3	2,772	72.7	1.3	0.5	0.9	8.0	2.7	5.5	1.8	9.1
Corporate	852	25.1	943	25.7	1,040	27.3	8.7	26.0	9.3	20.8	10.2	32.2	10.2	22.0
Hong Kong, China														
Total	169	100.0	176	100.0	178	100.0	(0.8)	3.1	0.9	5.1	(0.6)	3.2	0.9	5.3
Government	91	53.7	93	52.8	93	52.7	0.9	3.9	0.5	3.0	1.1	4.0	0.5	3.2
Corporate	78	46.3	83	47.2	84	47.3	(2.8)	2.2	1.3	7.6	(2.5)	2.3	1.3	7.8
Indonesia														
Total	110	100.0	110	100.0	111	100.0	1.2	3.6	3.3	9.7	(1.0)	2.8	1.2	1.6
Government	93	85.2	92	83.8	92	82.8	(0.1)	0.3	2.2	6.6	(2.2)	(0.5)	0.1	(1.3)
Corporate	16	14.8	18	16.2	19	17.2	9.2	28.0	9.4	27.6	6.8	27.0	7.2	18.1
Korea, Rep. of														
Total	1,229	100.0	1,370	100.0	1,471	100.0	2.0	9.5	2.8	10.5	4.2	7.0	7.4	19.7
Government	510	41.5	543	39.6	572	38.9	(0.5)	6.0	0.9	3.7	1.7	3.5	5.4	12.3
Corporate	719	58.5	827	60.4	899	61.1	3.8	12.1	4.1	15.4	6.1	9.5	8.7	24.9
Malaysia														
Total	263	100.0	318	100.0	327	100.0	(0.7)	10.4	2.8	19.9	(0.1)	6.7	2.9	24.2
Government	158	59.8	192	60.3	196	59.9	(1.2)	12.0	2.2	20.0	(0.5)	8.3	2.2	24.3
Corporate	106	40.2	126	39.7	131	40.1	(0.05)	8.1	3.9	19.8	0.6	4.5	3.9	24.1
Philippines														
Total	77	100.0	91	100.0	100	100.0	3.6	5.8	7.5	20.5	3.4	5.7	9.4	28.9
Government	67	87.1	79	86.5	87	87.1	3.1	4.8	8.3	20.5	2.9	4.7	10.2	28.8
Corporate	10	12.9	12	13.5	13	12.9	6.8	13.4	2.3	20.7	6.7	13.3	4.1	29.1
Singapore														
Total	190	100.0	237	100.0	241	100.0	0.3	13.7	1.4	19.4	1.1	12.6	1.9	26.8
Government	118	62.2	139	58.7	142	58.6	0.8	16.0	1.2	12.6	1.6	14.8	1.7	19.5
Corporate	72	37.8	98	41.3	100	41.4	(0.5)	10.1	1.7	30.6	0.3	9.0	2.1	38.6
Thailand														
Total	225	100.0	265	100.0	279	100.0	(0.6)	5.3	4.2	19.8	(1.7)	0.3	5.0	23.6
Government	182	80.8	212	79.8	221	79.3	(1.4)	4.4	3.6	17.7	(2.5)	(0.5)	4.4	21.4
Corporate	43	19.2	54	20.2	58	20.7	3.1	9.1	6.7	28.8	1.9	3.9	7.6	32.8
Viet Nam														
Total	17	100.0	21	100.0	25	100.0	0.04	17.1	17.6	42.7	(0.9)	8.6	17.9	44.0
Government	15	88.3	20	92.5	24	95.7	0.03	20.8	21.8	54.6	(0.9)	12.0	22.0	56.1
Corporate	2	11.7	2	7.5	1	4.3	0.1	(5.0)	(33.2)	(47.6)	(0.9)	(11.9)	(33.1)	(47.1)
Emerging East Asia (EEA)														
Total	5,673	100.0	6,255	100.0	6,543	100.0	2.2	7.0	3.0	12.1	3.5	9.1	4.6	15.3
Government	3,774	66.5	4,093	65.4	4,199	64.2	0.8	2.6	1.4	8.8	1.9	5.1	2.6	11.2
Corporate	1,899	33.5	2,162	34.6	2,344	35.8	5.2	17.0	6.2	18.6	6.9	17.9	8.4	23.5
EEA excl. PRC														
Total	2,281	100.0	2,588	100.0	2,731	100.0	1.1	8.7	3.0	13.4	2.2	6.2	5.5	19.8
Government	1,234	54.1	1,369	52.9	1,427	52.2	(0.3)	6.9	2.3	10.3	0.4	4.4	4.2	15.6
Corporate	1,047	45.9	1,219	47.1	1,304	47.8	2.7	10.8	3.8	17.0	4.3	8.4	7.0	24.6
Japan														
Total	12,708	100.0	12,847	100.0	11,732	100.0	0.5	2.8	1.6	4.1	0.7	8.4	(8.7)	(7.7)
Government	11,556	90.9	11,741	91.4	10,738	91.5	0.6	3.3	1.8	4.8	0.8	9.0	(8.5)	(7.1)
Corporate	1,152	9.1	1,106	8.6	994	8.5	(0.8)	(1.8)	(0.01)	(2.7)	(0.6)	3.5	(10.1)	(13.7)
Memo Item: CNH														
Total	44	100.0	53	100.0	53	100.0	9.3	297.8	(1.2)	19.1	10.8	317.5	(0.3)	20.4
Government	7	14.8	13	24.5	12	22.9	(6.8)	36.7	(7.9)	84.1	(5.5)	43.4	(7.1)	86.0
Corporate	38	85.2	40	75.5	41	77.1	12.7	495.1	1.0	7.9	14.3	524.6	1.9	9.0
Memo Item: India														
Total	846	100.0	1,045	100.0	1,015	100.0	5.1	17.8	1.1	24.3	(3.0)	(0.8)	(2.9)	20.0
Government	674	79.7	830	79.5	804	79.2	6.0	17.9	0.7	23.5	(2.2)	(0.7)	(3.2)	19.2
Corporate	172	20.3	214	20.5	211	20.8	1.7	17.2	2.6	27.6	(6.2)	(1.2)	(1.4)	23.1

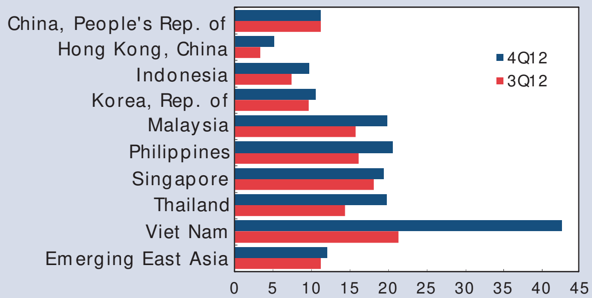
( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.

Notes:

1. For Singapore, corporate bonds outstanding quarterly figures based on *AsianBondsOnline* estimates. For Japan, 4Q12 data carried over from November 2012.
2. Corporate bonds include issues by financial institutions.
3. CNH bonds are renminbi-denominated bonds issued in Hong Kong, China. Data include certificates of deposit and bonds issued by foreign companies.
4. Bloomberg LP end-of-period LCY–US$ rates are used.
5. For LCY base, emerging East Asia growth figures based on end-December 2012 currency exchange rates and do not include currency effects.
6. Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

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

Figure 1b: Growth of LCY Bond Markets
(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 figures are based on end-December 2012 currency exchange rates and does not include currency effects.
4. For Singapore, corporate bonds outstanding quarterly figures based on *AsiaBondsOnline* estimates.
Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia and Indonesia Stock Exchange); Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore, Singapore Government Securities, and Bloomberg LP); Thailand (Bank of Thailand); and Viet Nam (Bloomberg LP).

market shrank 47.6% y-o-y. New issuance in Viet Nam's corporate sector remained constrained by a combination of high interest rates and investor concerns about corporate sector credit quality as Vietnamese banks have become more cautious about extending new credit.

In the next four most rapidly growing markets (the Philippines, Malaysia, Thailand, and Singapore), the corporate sectors expanded at strong double-digit rates of growth. In addition, the y-o-y growth rates for government and corporate bond markets in both Malaysia and the Philippines in 4Q12 were almost the same: 20.0% and 19.8% for Malaysia's government and corporate bond markets, respectively, and 20.5% and 20.7% for the Philippines' government and corporate bond markets, respectively.

Asian LCY bond markets outside of emerging East Asia also have made significant progress in recent years. The Indian LCY bond market, in particular, has grown rapidly—24.3% y-o-y in 2012—while undergoing significant regulatory and structural changes. See **Box 1** on page 28 for more detail on the Indian LCY bond market.

Total government bonds outstanding in emerging East Asia grew only 1.4% q-o-q in 4Q12, reflecting very slow growth in the PRC even as growth in Viet Nam, the Philippines, Thailand, and several other markets remained relatively robust.

The slowdown in the region's q-o-q growth rate in 4Q12 was due mainly to sluggish growth of only 0.9% in the PRC's government bond market, which accounts for 66% of the region's total government bond market, as well as slower q-o-q growth in the government bond markets of Singapore (1.2%); the Republic of Korea (0.9%); and Hong Kong, China (0.5%). One factor responsible for the slow growth of the government bond sector in the PRC and several other markets has been the moderation of central bank bill issuance in recent quarters as sterilization activities have been reduced over the last year. The People's Bank of China (PBOC) ceased issuing new bills in the beginning of 2012. The stock of bills of the Hong Kong Monetary Authority (HKMA) rose by 0.4% y-o-y, while HKMA's bonds fell by 0.9% y-o-y. The stock of the Bank of Korea's (BOK) bills rose by 3.5%, but the stock of BOK's bonds fell by 3.3%.

While the stock of bills issued by the Monetary Authority of Singapore (MAS) grew by 12.6% q-o-q and 102.0% y-o-y in 4Q12, Singapore's overall government bond growth rate was a surprisingly low 1.2% q-o-q as the government cut back issuance of Singapore Government Securities (SGSs), which comprise both treasury bonds and bills, by 18.7% q-o-q and 19.7% y-o-y in the last quarter of the year. The growth of MAS bills has been very brisk since MAS first began issuing bills as part of its Money Market Operations (MMO) in April 2011. Previously, MAS used three instruments to inject and withdraw liquidity into and from the banking system as part of its daily MMO: (i) foreign exchange (FX) swaps or reverse swaps, (ii) SGS repos or reverse repos, and (iii) clean lending and borrowing. The timing and amount of individual MAS bill issues is decided by MAS in consultation with primary dealers. Any issuance of MAS bills involves MAS' estimate of its sterilization requirements, which can be driven by factors such as capital flows into and out of the region.

The next most rapidly growing government bond market in 4Q12 on a q-o-q basis after Viet Nam and the Philippines was Thailand (3.6%), followed by Malaysia and Indonesia, both of which expanded 2.2%.

Corporate Bond Market

The LCY corporate bond market in emerging East Asia grew 6.2% q-o-q in 4Q12, up from 4.2% growth recorded in 3Q12.

The largest LCY corporate bond market in emerging East Asia at the end of 4Q12 remained that of the PRC at a size equivalent to US$1 trillion, followed by the Republic of Korea at US$899 billion. The next largest corporate bond markets were those of Malaysia at US$131 billion; Singapore at US$100 billion; Hong Kong, China at US$84 billion; and Thailand at US$58 billion. The three remaining LCY corporate bond markets—Indonesia, the Philippines, and Viet Nam—are much smaller in size at US$19 billion, US$13 billion, and US$1 billion, respectively.

The two most rapidly growing corporate bond markets in 4Q12 on a q-o-q basis were those of Indonesia and the PRC, which grew 9.4% and 9.3%, respectively, despite the immense difference in size between these two markets. The next three most rapidly growing corporate bond markets on a q-o-q basis were those of Thailand (6.7%), the Republic of Korea (4.1%), and Malaysia (3.9%). Viet Nam's tiny corporate bond market (US$1 billion) actually contracted 33.2% during the quarter. As mentioned earlier, this reflected a combination of high issuance costs in Viet Nam, given persistently high domestic interest rates, as well as investor concerns over the credit quality of corporate bonds.

Indonesia's corporate bond sector is not only small in relation to the region's total bond market, but it also accounted for only 17.2% of Indonesia's LCY bond market at the end of 4Q12. Conventional corporate bonds accounted for 81.9% of total corporate bonds. Subordinated bank bonds accounted for 14.2% of the stock of Indonesia's corporate bonds at the end of the year and *sukuk* (Islamic bond) issues by corporate entities comprised only 3.5%. Indonesia's corporate bond market is also highly concentrated among a relatively small universe of issuers.

At the end of 4Q12, the bonds outstanding of the top 33 corporate bond issuers in Indonesia amounted to IDR150.3 trillion (US$15.3 billion), or 80.2% of total corporate bonds outstanding. Indonesia's top three LCY corporate bond issuers in 4Q12 were the same as in 3Q12, led by state-power firm PLN with outstanding bonds valued at IDR14.2 trillion, followed by leasing company Adira Dinamika Multifinance with bonds outstanding of IDR9.4 trillion, and telecommunications firm Indosat with bonds outstanding of IDR9.2 trillion.

The LCY corporate bond market in the Republic of Korea grew 15.4% y-o-y in 4Q12 to reach KRW956.7 trillion (US$899 billion) at the end of 4Q12. The top 30 LCY corporate bond issuers had cumulative bonds outstanding of KRW593.7 trillion, or 62.1% of the total. The largest issuer of corporate bonds remained government-owned Korea Land & Housing Corporation with bonds outstanding of KRW57.9 trillion, which accounted for about 10% of the total market.

Two of the largest new issues during the quarter were Nonghyup Bank's KRW700 billion 8-year bond carrying a 3.33% coupon and Korea Land & Housing Corporation's KRW500 billion 3-year bond with a 3.02% coupon. The longest-dated LCY corporate bond issued during the quarter was Korea Land & Housing Corporation's 40-year bond worth KRW90 billion. Two of the more interesting high-yield bonds issued in 4Q12 were (i) Dongbu Corporation's 1-year bond of KRW42 billion carrying an 8.9% coupon, and (ii) Kolon Global Corporation's 2.5-year bond of KRW100 billion with an 8.5% coupon. These bonds had small issue sizes and short-dated maturities, but their high yields make them attractive to more sophisticated private investors who understand the operating environment and business risks, rather than institutional investors who would be looking for longer-dated securities with an investment grade credit rating. The high-yield bond market in the Republic of Korea—and in some other markets in the region as well—has considerable potential for further growth and development, because it satisfies a need for higher yields on the part of investors such as private banking clients, who must currently look outside the region for higher returns on their bond investments.

Malaysia's LCY corporate bond market climbed to MYR401 billion (US$131 billion) at end-December, expanding 3.9% q-o-q and 19.8% y-o-y. As of end-December, the total bonds outstanding of the top 30 corporate bond issuers in Malaysia stood at MYR221.8 billion, accounting for 55.3% of total corporate bonds outstanding. Project Lebuhraya Usahasama Bhd., an expressway operator, remained the largest issuer of LCY corporate bonds in Malaysia with bonds outstanding valued at MYR30.6 billion. National mortgage corporation Cagamas and the government's investment-holding arm Khazanah followed with total bonds outstanding of MYR20.2 billion and MYR17.7 billion, respectively. Financial firms accounted for a third of the list of the top 30 LCY corporate bond issuers in Malaysia in 4Q12. Other bond issuers were from the following sectors: energy, gas, and water; transport, storage, and communications; quasi-government; and construction.

Ratio of Bonds Outstanding to Gross Domestic Product

The ratio of bonds outstanding to GDP in emerging East Asia rose slightly to 55.0% in 4Q12 from 54.0% in 3Q12.

The ratio of bonds outstanding to GDP in emerging East Asia rose slightly to 55.0% in 4Q12 from 54.0% in 3Q12 **(Table 2)**. Specifically, the ratio of government bonds to GDP fell slightly to 35.3% in 4Q12 from 35.4% in 3Q12, while the ratio of corporate bonds to GDP rose from 18.7% to 19.7%.

Table 2: Size and Composition of LCY Bond Markets
(% of GDP)

	4Q11	3Q12	4Q12
China, People's Rep. of			
Total	45.1	45.7	45.7
Government	33.8	33.9	33.3
Corporate	11.3	11.7	12.5
Hong Kong, China			
Total	67.6	68.3	68.9
Government	36.3	36.1	36.3
Corporate	31.3	32.2	32.6
Indonesia			
Total	13.4	13.1	13.2
Government	11.4	10.9	11.0
Corporate	2.0	2.1	2.3
Korea, Rep. of			
Total	114.5	120.1	129.0
Government	47.5	47.6	50.2
Corporate	67.0	72.5	78.8
Malaysia			
Total	94.6	105.1	108.2
Government	56.6	63.4	64.8
Corporate	38.0	41.8	43.4
Philippines			
Total	34.8	36.8	38.7
Government	30.3	31.8	33.7
Corporate	4.5	5.0	5.0
Singapore			
Total	75.5	86.8	88.4
Government	47.0	51.0	51.8
Corporate	28.6	35.8	36.6
Thailand			
Total	67.5	75.3	79.0
Government	54.5	60.1	62.7
Corporate	13.0	15.2	16.3
Viet Nam			
Total	14.4	15.9	17.7
Government	12.7	14.7	16.9
Corporate	1.7	1.2	0.8
Emerging East Asia			
Total	52.2	54.0	55.0
Government	34.7	35.4	35.3
Corporate	17.5	18.7	19.7
Japan			
Total	207.7	210.3	213.9
Government	188.9	192.2	195.8
Corporate	18.8	18.1	18.1

GDP = gross domestic product, LCY = local currency.
Notes:
1. Data for GDP are from CEIC. 4Q12 GDP figures carried over from 3Q12 except for the People's Republic of China, Indonesia, Japan, the Philippines, and Viet Nam.
2. For Singapore, corporate bonds outstanding quarterly figures based on *AsianBondsOnline* estimates. For Japan, 4Q12 bonds outstanding carried over from November 2012.

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

The ratio of government bonds to GDP fell in the PRC from 33.9% to 33.3% between 3Q12 and 4Q12, but rose in all other markets. The largest such increase in the ratio of LCY government bonds to GDP was in the Republic of Korea, where the ratio rose from 47.6% to 50.2%. The huge size of the PRC government bond market, however, outweighed these increases in other markets, resulting in a modest decline of the ratio of government bonds to GDP for the region as a whole.

The largest increases in the ratios of corporate bonds to GDP occurred in the Republic of Korea (6.3 percentage points), Malaysia (1.6 percentage points), and Thailand (1.1 percentage points). The ratio of corporate bonds to GDP remained stable at 5.0% between 3Q12 and 4Q12 in the Philippines, but fell in Viet Nam from 1.2% to 0.8%. The ratio of corporate bonds to GDP rose in all of the remaining markets by 1 percentage point or less. Finally, the low ratio of bonds to GDP for Viet Nam's corporate sector reflected the tiny size—equivalent to only US$1 billion—of this market.

Issuance

LCY bond issuance in emerging East Asia totaled US$3.3 trillion in 2012, a decline of 8.4% from 2011. This decline reflected a 15.6% fall in government bond issuance in 2012, while corporate bond issuance rose 20.1%.

LCY bond issuance in emerging East Asia totaled US$3.3 trillion in 2012, a decline of 8.4% from 2011. Government bond issuance shrank 15.6% to US$2.4 trillion from US$2.8 trillion a year earlier, while corporate bond issuance rose 20.1% to US$860 billion from US$716 billion.

Quarterly issuance was volatile during the year, whether measured by government (including state-owned enterprises [SOEs]) and central bank issuance **(Figure 2a)**, corporate issuance **(Figure2b)**, or total issuance excluding the PRC and issuance by the PRC only **(Figure 2c)**.

Quarterly issuance by central banks and monetary authorities in 4Q12 rose slightly from 3Q12 **(Table 3)**. HKMA increased its issuance in 4Q12 by almost 20% to US$188 billion, while MAS and BOK increased their respective issuance by much more modest amounts. BI raised its issuance by 29.8% in 4Q12, but this still only amounted to US$4 billion, given the sharp reduction of BI's issuance of *Sertifikat* Bank Indonesia (SBI) over the last year. BI has sharply reduced the stock of SBI outstanding over the last several years to curb speculation on the direction of the rupiah–US$ exchange rate. Bank Negara Malaysia (BNM), meanwhile, reduced its q-o-q issuance by 25.7% in 4Q12.

Issuance by treasuries and other government agencies in emerging East Asia in 4Q12 fell sharply by 31.1% q-o-q as many annual issuance programs had already been completed by the beginning of the fourth quarter. In particular, the PRC, Indonesia, and the Philippines all reduced their 4Q12 government sector bond issuance by 30% or more. Thailand reduced its government bond issuance by 57.9% q-o-q in 4Q12, while Malaysia and Singapore reduced their issuance by about 20% each.

Issuance in the region's corporate bond sector grew 6.3% q-o-q and 6.6% y-o-y. The only large increases in new corporate issuance on a q-o-q basis came from the PRC and Indonesia, which saw their issuance levels rise 26.1% and 118.7%, respectively. The US$109 billion of new corporate issuance in the PRC was the largest in the region. The next largest amount of corporate issuance was in the Republic of Korea at US$93 billion. Taken together, corporate issuance in 4Q12 in the PRC and Republic of Korea accounted for US$201 billion out of the region's total corporate bond issuance of US$234 billion in the last quarter of the year.

Issuance in the region's smaller markets can be highly volatile quarter-to-quarter, since issuance by a relatively small number of government-owned companies, financial institutions, and large blue chip issuers from the private sector can skew

Figure 2a: Government (including SOE) and Central Bank Bond Issuance

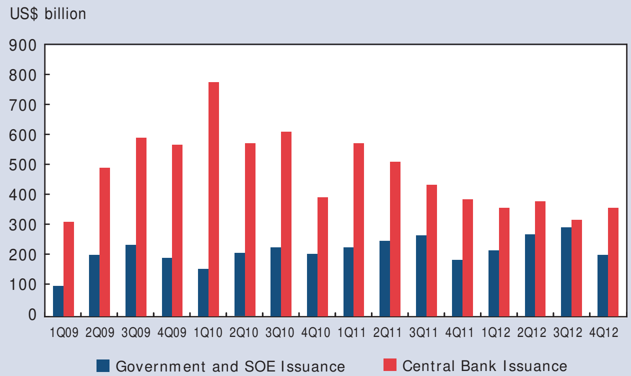


Figure 2b: Government (including SOE) and Corporate Bond Issuance

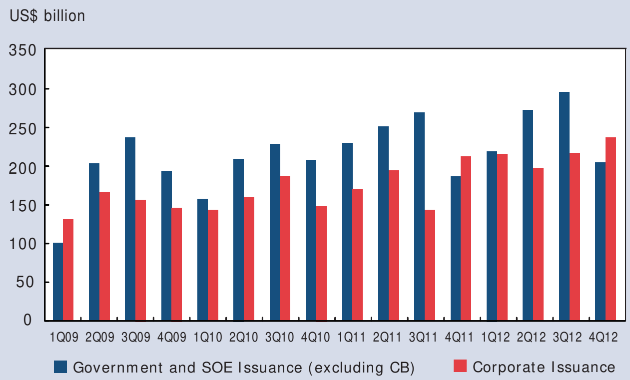
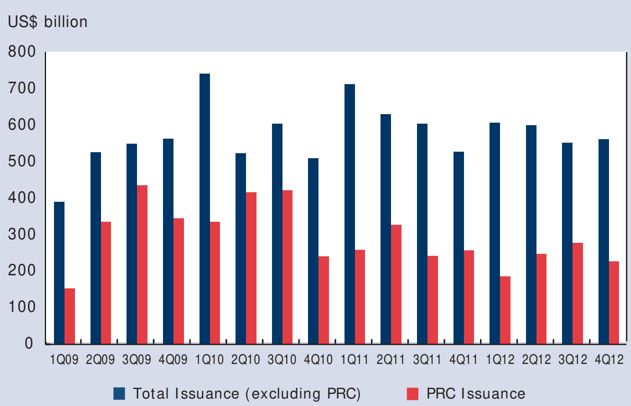


Figure 2c: Total LCY Bond Issuance



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.*

issuance numbers in a given quarter. The smaller markets, nevertheless, can offer investors a good deal of diversity in terms of credit quality, yield, and maturity, with Indonesia being a case in point. In 4Q12, 40 new bond series were issued by 20 Indonesian corporates, with maturities ranging from 1 year to 7 years, and coupons ranging from 6.25% to 9.40%. Indonesia's new corporate bond issues in 4Q12 consisted entirely of conventional bonds with the exception of two *sukuk* issues and four subordinated bond series.

Money Market Trends and Bills-to-Bonds Ratios

The ratio of bills to bonds fell or remained unchanged in most emerging East Asian markets between the end of 3Q12 and the end of 4Q12.

The ratio of bills-to-bonds fell or remained unchanged between the end of 3Q12 and the end of 4Q12 in five out of the eight individual markets presented in **Figure 3a**. The ratio of bills to bonds rose only in Singapore, Thailand, and Viet Nam. The most dramatic decline was in the PRC due to the fact that the PBOC ceased issuance of bills in the beginning of 2012, resulting in a sharp decline of PBOC bills outstanding by the end of 3Q12 and their disappearance by the end of 4Q12 **(Figure 3b)**. On the other hand, the stock of bills issued by central banks and monetary authorities rose significantly on y-o-y basis in Malaysia, Singapore, Thailand, and Viet Nam. The State Bank of Viet Nam (SBV), however, dramatically increased its stock of bills in 4Q12 by 165.3% q-o-q to a level of US$3 billion, resulting in an increase of Viet Nam's bills-to-bonds ratio to 0.41 at the end of 4Q12 from 0.19 at the end of 3Q12 **(Table 4)**. SBV had no bills outstanding at the end of 4Q11. The bills-to-bonds ratio for Hong Kong, China stood at 4.3 at the end of 4Q12; however, Hong Kong, China is not included in Figure 3a because its very high ratio puts it on a different scale than other markets.

The region's stock of treasury bills at the end of 4Q12 was equivalent to US$98 billion. Of this

Table 3: LCY-Denominated Bond Issuance (gross)

	LCY (billion)		**US$** (billion)		**Growth Rate** (LCY-base %)		**Growth Rate** (US$-base %)	
	4Q12	**% share**	**4Q12**	**% share**	**4Q12**		**4Q12**	
					q-o-q	**y-o-y**	**q-o-q**	**y-o-y**
China, People's Rep. of (PRC)								
Total	1,412	100.0	227	100.0	(18.8)	(12.8)	(18.1)	(11.9)
Government	735	52.1	118	52.1	(38.9)	(25.2)	(38.3)	(24.4)
Central Bank	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	735	52.1	118	52.1	(38.9)	12.4	(38.3)	13.6
Corporate	676	47.9	109	47.9	26.1	6.4	27.2	7.5
Hong Kong, China								
Total	1,509	100.0	195	100.0	16.3	12.1	16.4	12.4
Government	1,460	96.7	188	96.7	18.6	12.8	18.7	13.1
Central Bank	1,457	96.5	188	96.5	19.8	13.1	19.9	13.3
Treasury and Other Govt.	3	0.2	0	0.2	(79.3)	(45.5)	(79.3)	(45.3)
Corporate	50	3.3	6	3.3	(25.7)	(4.7)	(25.7)	(4.5)
Indonesia								
Total	87,135	100.0	9	100.0	8.9	(6.5)	6.7	(13.4)
Government	65,355	75.0	7	75.0	(6.7)	(15.3)	(8.6)	(21.6)
Central Bank	38,246	43.9	4	43.9	29.8	(25.9)	27.1	(31.4)
Treasury and Other Govt.	27,109	31.1	3	31.1	(33.2)	6.1	(34.5)	(1.7)
Corporate	21,780	25.0	2	25.0	118.7	36.4	114.2	26.3
Korea, Rep. of								
Total	170,220	100.0	160	100.0	6.3	5.2	11.0	13.9
Government	71,603	42.1	67	42.1	13.1	7.6	18.1	16.6
Central Bank	43,470	25.5	41	25.5	11.5	5.0	16.4	13.7
Treasury and Other Govt.	28,133	16.5	26	16.5	15.7	12.0	20.8	21.2
Corporate	98,617	57.9	93	57.9	1.9	3.5	6.4	12.0
Malaysia								
Total	139	100.0	45	100.0	(24.0)	27.1	(24.0)	31.6
Government	106	76.6	35	76.6	(24.8)	23.5	(24.8)	28.0
Central Bank	83	60.0	27	60.0	(25.7)	26.1	(25.6)	30.7
Treasury and Other Govt.	23	16.6	8	16.6	(21.5)	14.9	(21.4)	19.1
Corporate	33	23.4	11	23.4	(21.4)	40.2	(21.4)	45.2
Philippines								
Total	157	100.0	4	100.0	(32.9)	(25.2)	(31.7)	(20.1)
Government	141	89.8	3	89.8	(31.7)	(21.0)	(30.5)	(15.5)
Central Bank	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	141	89.8	3	89.8	(31.7)	(21.0)	(30.5)	(15.5)
Corporate	16	10.2	0.4	10.2	(41.6)	(49.3)	(40.6)	(45.8)
Singapore								
Total	89	100.0	73	100.0	(15.3)	(7.1)	(14.9)	(1.4)
Government	87	97.3	71	97.3	(8.9)	(6.1)	(8.5)	(0.3)
Central Bank	41	45.8	33	45.8	5.4	16.2	5.9	23.3
Treasury and Other Govt.	46	51.5	38	51.5	(18.7)	(19.7)	(18.4)	(14.8)
Corporate	2	2.7	2	2.7	(76.1)	(33.3)	(75.9)	(29.2)
Thailand								
Total	2,199	100.0	72	100.0	(9.1)	(20.8)	(8.4)	(18.3)
Government	1,858	84.5	61	84.5	(10.7)	(26.5)	(10.0)	(24.2)
Central Bank	1,693	77.0	55	77.0	0.3	(31.8)	1.0	(29.7)
Treasury and Other Govt.	165	7.5	5	7.5	(57.9)	289.7	(57.5)	301.9
Corporate	341	15.5	11	15.5	0.7	36.8	1.5	41.1

continued on next page

Table 3 *continued*

	LCY (billion)		US$ (billion)		Growth Rate (LCY-base %)		Growth Rate (US$-base %)	
	4Q12	% share	4Q12	% share	4Q12		4Q12	
					q-o-q	y-o-y	q-o-q	y-o-y
Viet Nam								
Total	111,936	100.0	5	100.0	557.7	913.1	559.1	922.5
Government	111,786	99.9	5	99.9	591.3	969.7	592.8	979.7
Central Bank	58,560	52.3	3	52.3	–	–	–	–
Treasury and Other Govt.	53,226	47.6	3	47.6	229.2	409.3	229.9	414.1
Corporate	150	0.1	0.01	0.1	(82.4)	(75.0)	(82.3)	(74.7)
Emerging East Asia (EEA)								
Total	–	–	790	100.0	(5.6)	(2.0)	(4.5)	0.8
Government	–	–	556	70.4	(9.9)	(5.2)	(9.1)	(2.9)
Central Bank	–	–	352	44.5	9.8	(11.0)	10.6	(9.0)
Treasury and Other Govt.	–	–	204	25.9	(31.1)	6.6	(30.4)	10.0
Corporate	–	–	234	29.6	6.3	6.6	8.6	10.9
EEA excl. PRC								
Total	–	–	563	100.0	1.0	3.1	2.3	7.1
Government	–	–	438	77.7	3.3	2.1	4.2	5.2
Central Bank	–	–	352	62.4	9.8	2.8	10.6	5.2
Treasury and Other Govt.	–	–	86	15.3	(16.7)	(0.5)	(15.6)	5.4
Corporate	–	–	125	22.3	(6.5)	6.8	(3.6)	14.1
Japan								
Total	51,396	100.0	592	100.0	(1.7)	6.1	(11.7)	(5.9)
Government	47,890	93.2	552	93.2	(2.2)	6.4	(12.1)	(5.7)
Central Bank	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	47,890	93.2	552	93.2	(2.2)	6.4	(12.1)	(5.7)
Corporate	3,507	6.8	40	6.8	6.3	2.1	(4.5)	(9.5)

– = not applicable, ( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. For Japan, government and corporate bond issuance 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 2012 currency exchange rates and do not include currency effects.
Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia, Indonesia Debt Management Office, and Indonesia Stock Exchange); Republic of Korea (EDAILY *BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bloomberg LP); Singapore (Singapore Government Securities and Bloomberg LP); Thailand (Bank of Thailand); Viet Nam (Bloomberg LP); and Japan (Japan Securities Dealers Association).

amount, US$49 billion was issued by Singapore and another US$37 billion by the PRC, leaving only US$12 billion divided among all other markets in emerging East Asia. The region's US$260 billion stock of central bank bills is somewhat more evenly distributed, as has been mentioned above. The average treasury bills-to-treasury bonds ratio for the region as a whole was 0.05 at the end of 4Q12, reflecting a small stock of treasury bills and almost US$2 trillion of treasury bonds.

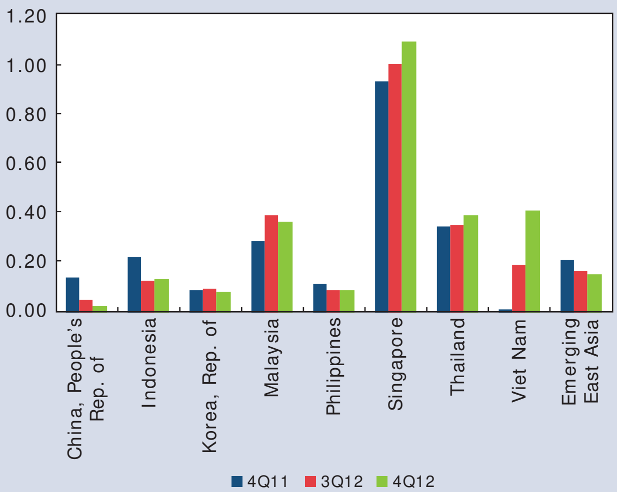
The region's stock of treasury bonds grew 11.6% y-o-y in 4Q12. Slightly over one-half of this amount (US$1.1 trillion) was issued by the PRC, US$368 billion was issued by the Republic of Korea, and US$142 billion by Malaysia. The remaining US$345 billion was more or less evenly distributed between Thailand (US$99 billion), Indonesia (US$81 billion), the Philippines (US$77 billion), and Singapore (US$68 billion).

Foreign Holdings

Foreign holdings of Asian LCY government bonds rose in most markets in the second half of 2012.

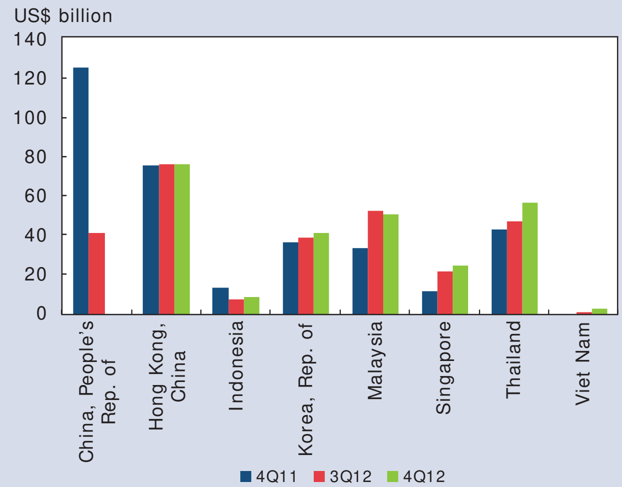
Foreign holdings of Asian LCY government bonds rose in late 2012 in most markets **(Figure 4)**. In

Figure 3a: Total Bills-to-Bonds Ratios



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

Figure 3b: Central Bank Bills Outstanding



Notes:
1. The People's Republic of China ceased issuance of central bank bills in the beginning of 2012.
2. The Philippines has no central bank bills outstanding.
Source: *AsianBondsOnline*.

Indonesia, the share of foreign holdings to total government bonds recovered from a downturn in mid-2012 to finish the year at 33.0% of total holdings. This was only slightly below the all-time high for foreign holdings as a proportion of total holdings: 35.5% in July 2011. Foreign holdings of Malaysian government bonds rose to 28.5% of total holdings at end-September from 27.1% at end-June. Foreign holdings of Thai bonds rose to 16.4% of total holdings at end-December from 15.0% at end-September. Foreign holdings of bonds in the Republic of Korea were 10.2% of total holdings at end-September, which was down from a high of 11.2% at end-September 2011. For comparison, foreign holdings of Japanese bonds also rose slightly last year.

Figure 5 shows that net foreign investment flows into the Republic of Korea's LCY bond market turned negative in January following significant inflows in December. Monthly foreign investment flows are highly volatile and often reflect profit-taking by foreign investors as much as underlying economic and financial trends. The largest net outflows in January were generated by investors in Luxembourg, Thailand, and the United States (US). The only net inflows in January from a major investing country in the Republic of Korea's LCY bond market were from investors in the PRC.

Maturity Structure

The maturity profiles of the region's government bond markets generally lengthened in 2012, with a modest expansion in maturities of 10 years or more, while the maturity profiles of the region's corporate bond markets remained much more short-dated.

The maturity profiles of the region's government bond markets remained concentrated at the shorter-end of the yield curve for Hong Kong, China; the Republic of Korea; Thailand; and Viet Nam **(Figure 6a)**. These four markets had 40% or more of their bonds outstanding in remaining maturities ranging between more than 1 year and 3 years. Approximately 42% of the outstanding government bonds in the Republic of Korea and Thailand had maturities in this range. For Hong Kong, China and Viet Nam, the proportion of bonds outstanding with maturities between more than 1 year and 3 years was 50% and 58%, respectively.

Table 4: Government Bills-to-Bonds Ratios in LCY Bond Markets

	4Q11		3Q12		4Q12		Government Bills-to-Bonds Ratio			Growth Rate (LCY-base %) 4Q12		Growth Rate (US$-base %) 4Q12	
	Amount (US$ billion)	% share	Amount (US$ billion)	% share	Amount (US$ billion)	% share	4Q11	3Q12	4Q12	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of (PRC)													
Total	1,362	100.0	1,354	100.0	1,349	100.0				(1.2)	(2.0)	(0.4)	(1.0)
Total Bills	167	12.3	69	5.1	37	2.7	0.14	0.05	0.03	(47.4)	(78.2)	(46.9)	(78.0)
Treasury Bills	43	3.1	28	2.1	37	2.7	0.04	0.03	0.03	30.1	(14.5)	31.3	(13.6)
Central Bank Bills	125	9.2	41	3.0	0	0.0	0.59	0.19	0.00	–	–	–	–
Total Bonds	1,195	87.7	1,285	94.9	1,312	97.3				1.3	8.7	2.1	9.8
Treasury Bonds	983	72.1	1,072	79.2	1,098	81.4				1.5	10.6	2.4	11.7
Central Bank Bonds	213	15.6	213	15.7	215	15.9				0.0	0.0	0.9	1.0
Hong Kong, China													
Total	91	100.0	93	100.0	93	100.0				0.5	3.0	0.5	3.2
Total Bills	75	83.3	76	81.5	76	81.3	5.00	4.42	4.34	0.1	0.4	0.2	0.7
Treasury Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Central Bank Bills	75	83.3	76	81.5	76	81.3	8.46	8.52	8.57	0.1	0.4	0.2	0.7
Total Bonds	15	16.7	17	18.5	18	18.7				2.0	15.7	2.1	15.9
Treasury Bonds	6	6.8	8	8.9	9	9.2				4.7	39.6	4.7	39.9
Central Bank Bonds	9	9.9	9	9.6	9	9.5				(0.4)	(0.9)	(0.4)	(0.6)
Indonesia													
Total	93	100.0	92	100.0	92	100.0				2.2	6.6	0.1	(1.3)
Total Bills	17	18.2	10	11.3	11	11.7	0.22	0.13	0.13	5.5	(31.8)	3.4	(36.8)
Treasury Bills	3	3.7	3	3.3	2	2.5	0.05	0.04	0.03	(21.0)	(26.3)	(22.6)	(31.7)
Central Bank Bills	14	14.6	7	8.0	8	9.1	–	–	–	16.5	(33.2)	14.1	(38.1)
Total Bonds	76	81.8	82	88.7	81	88.3				1.7	15.1	(0.4)	6.6
Treasury Bonds	76	81.8	82	88.7	81	88.3				1.7	15.1	(0.4)	6.6
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Korea, Rep. of													
Total	450	100.0	497	100.0	520	100.0				0.2	6.7	4.7	15.5
Total Bills	37	8.1	43	8.6	41	7.9	0.09	0.09	0.09	(8.0)	3.5	(3.9)	12.0
Treasury Bills	0	0.0	4	0.8	0	0.0	0.00	0.01	0.00	–	–	–	–
Central Bank Bills	37	8.1	39	7.8	41	7.9	0.35	0.37	0.37	1.7	3.5	6.1	12.0
Total Bonds	414	91.9	454	91.4	479	92.1				1.0	7.0	5.5	15.8
Treasury Bonds	308	68.4	350	70.5	368	70.8				0.7	10.5	5.2	19.6
Central Bank Bonds	106	23.5	104	21.0	111	21.3				1.9	(3.3)	6.4	4.7
Malaysia													
Total	157	100.0	191	100.0	194	100.0				1.8	19.1	1.9	23.4
Total Bills	35	22.3	53	28.0	52	26.7	0.29	0.39	0.36	(2.9)	42.8	(2.9)	48.0
Treasury Bills	1	0.9	1	0.7	1	0.7	0.01	0.01	0.01	0.0	0.0	0.0	3.6
Central Bank Bills	34	21.4	52	27.3	50	26.0	–	–	–	(3.0)	44.6	(3.0)	49.8
Total Bonds	122	77.7	137	72.0	142	73.3				3.7	12.4	3.7	16.4
Treasury Bonds	122	77.7	137	72.0	142	73.3				3.7	12.4	3.7	16.4
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Philippines													
Total	65	100.0	76	100.0	84	100.0				9.2	21.2	11.2	29.6
Total Bills	7	10.4	6	8.1	7	8.0	0.12	0.09	0.09	7.8	(6.8)	9.7	(0.4)
Treasury Bills	7	10.4	6	8.1	7	8.0	0.12	0.09	0.09	7.8	(6.8)	9.7	(0.4)
Central Bank Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Total Bonds	58	89.6	69	91.9	77	92.0				9.3	24.5	11.3	33.1
Treasury Bonds	58	89.6	69	91.9	77	92.0				9.3	24.5	11.3	33.1
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–

continued on next page

Table 4 *continued*

	4Q11		3Q12		4Q12		Government Bills-to-Bonds Ratio			Growth Rate (LCY-base %) 4Q12		Growth Rate (US$-base %) 4Q12	
	Amount (US$ billion)	% share	Amount (US$ billion)	% share	Amount (US$ billion)	% share	4Q11	3Q12	4Q12	q-o-q	y-o-y	q-o-q	y-o-y
Singapore													
Total	118	100.0	139	100.0	142	100.0				1.2	12.6	1.7	19.5
Total Bills	57	48.3	70	50.1	74	52.2	0.93	1.00	1.09	5.6	21.9	6.1	29.3
Treasury Bills	46	38.5	48	34.3	49	34.7	0.74	0.69	0.73	2.4	1.5	2.9	7.7
Central Bank Bills	12	9.8	22	15.7	25	17.5	–	–	–	12.6	102.0	13.2	114.4
Total Bonds	61	51.7	69	49.9	68	47.8				(3.2)	4.0	(2.7)	10.4
Treasury Bonds	61	51.7	69	49.9	68	47.8				(3.2)	4.0	(2.7)	10.4
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Thailand													
Total	167	100.0	192	100.0	201	100.0				3.8	16.6	4.6	20.3
Total Bills	43	25.7	50	26.2	56	28.1	0.35	0.35	0.39	11.4	27.5	12.3	31.5
Treasury Bills	0	0.0	3	1.7	0	0.0	0.00	0.04	0.00	–	–	–	–
Central Bank Bills	43	25.7	47	24.4	56	28.1	1.05	0.97	1.24	19.3	27.5	20.2	31.5
Total Bonds	124	74.3	142	73.8	144	71.9				1.1	12.9	1.9	16.4
Treasury Bonds	83	49.9	94	48.7	99	49.2				4.8	15.1	5.6	18.7
Central Bank Bonds	41	24.5	48	25.1	46	22.7				(6.1)	8.3	(5.4)	11.7
Viet Nam													
Total	7	100.0	12	100.0	15	100.0				30.2	110.9	30.5	112.9
Total Bills	0	1.4	2	16.0	4	29.2	0.01	0.19	0.41	137.4	4263.4	138.0	4304.0
Treasury Bills	0.1	1.4	0.8	6.9	2	10.5	0.01	0.08	0.15	100.2	1474.8	100.6	1489.5
Central Bank Bills	0	0.0	1	9.2	3	18.7	–	–	–	165.3	–	165.9	–
Total Bonds	7	98.6	10	84.0	11	70.8				9.8	51.4	10.0	52.8
Treasury Bonds	7	98.6	10	84.0	11	70.8				9.8	51.4	10.0	52.8
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–
Emerging East Asia (EEA)													
Total	2,511	100.0	2,645	100.0	2,690	100.0				0.4	4.3	1.7	7.1
Total Bills	438	17.4	379	14.3	358	13.3	0.21	0.17	0.15	(6.5)	(20.2)	(5.7)	(18.4)
Treasury Bills	100	4.0	94	3.6	98	3.6	0.06	0.05	0.05	2.9	(5.1)	3.7	(1.8)
Central Bank Bills	338	13.5	285	10.8	260	9.7	0.92	0.76	0.68	(9.6)	(24.7)	(8.8)	(23.2)
Total Bonds	2,073	82.6	2,266	85.7	2,333	86.7				1.5	9.5	3.0	12.5
Treasury Bonds	1,705	67.9	1,891	71.5	1,953	72.6				1.9	11.6	3.2	14.5
Central Bank Bonds	368	14.7	374	14.1	380	14.1				(0.2)	(0.1)	1.6	3.2
EEA excl. PRC													
Total	1,149	100.0	1,291	100.0	1,341	100.0				2.0	11.6	3.9	16.8
Total Bills	271	23.6	310	24.0	321	23.9	0.31	0.32	0.31	2.7	14.8	3.5	18.4
Treasury Bills	57	5.0	66	5.1	61	4.6	0.08	0.08	0.07	(8.6)	1.5	(7.9)	6.9
Central Bank Bills	214	18.6	244	18.9	260	19.4	1.37	1.51	1.57	5.7	18.5	6.6	21.5
Total Bonds	878	76.4	981	76.0	1,020	76.1				1.8	10.6	4.0	16.2
Treasury Bonds	722	62.9	820	63.5	855	63.7				2.3	13.0	4.3	18.4
Central Bank Bonds	156	13.5	161	12.5	165	12.3				(0.6)	(0.2)	2.5	6.3
Japan													
Total	10,056	100.0	10,208	100.0	9,336	100.0				1.8	4.7	(8.5)	(7.2)
Total Bills	390	3.9	385	3.8	346	3.7	0.04	0.04	0.04	0.0006	(0.0008)	(10.1)	(11.3)
Treasury Bills	390	3.9	385	3.8	346	3.7	0.04	0.04	0.04	0.0006	(0.0008)	(10.1)	(11.3)
Central Bank Bills	0	0.0	0	0.0	0	0.0	–	–	–	–	–	–	–
Total Bonds	9,666	96.1	9,823	96.2	8,991	96.3				1.8	4.9	(8.5)	(7.0)
Treasury Bonds	9,666	96.1	9,823	96.2	8,991	96.3				1.8	4.9	(8.5)	(7.0)
Central Bank Bonds	0	0.0	0	0.0	0	0.0				–	–	–	–

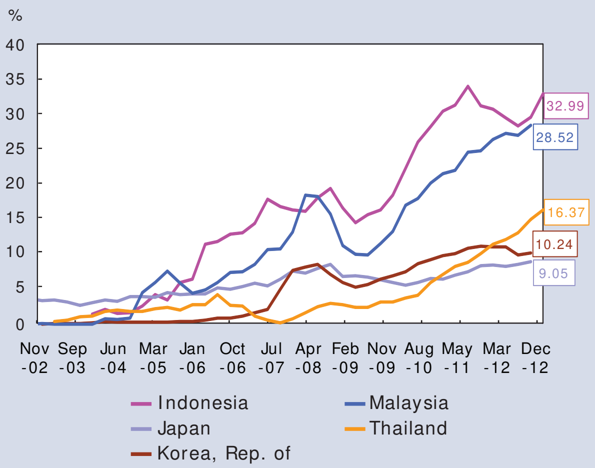
– = not applicable, ( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.

Notes:

1. For Japan, 4Q12 data carried over from November 2012.
2. Bloomberg LP end-of-period LCY–US$ rates are used.
3. For LCY-base, emerging East Asia growth figures are based on end-December 2012 currency exchange rates and do not include currency effects.
4. Total figures per market refer to bills and bonds issued by the central government and the central bank. They exclude bonds issued by policy banks and state-owned enterprises. Bills are defined as securities with original maturities of less than 1 year.

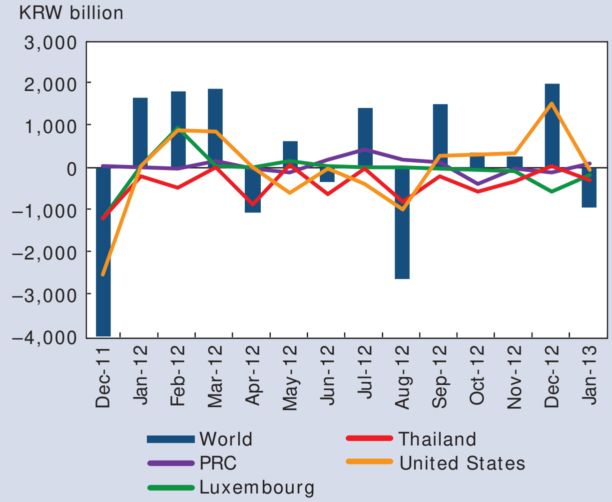
Source: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia and Indonesia Stock Exchange); Republic of Korea (Bloomberg LP); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury); Singapore (Monetary Authority of Singapore);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

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



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

Figure 5: Net Foreign Investment by Country in LCY Bonds in the Republic of Korea



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

In the Philippines and Indonesia, around 46% of government bonds outstanding had remaining maturities of more than 10 years. This resulted in a situation for both Indonesia and the Philippines where the greatest amount of market liquidity was concentrated at the longer-end of the curve, with very limited liquidity for maturities of 5 years or less. Singapore, the PRC, and Malaysia, on the other hand, had the greatest concentration of their government bonds—32%, 35%, and 40%, respectively—in remaining maturities of more than 5 years and up to 10 years.

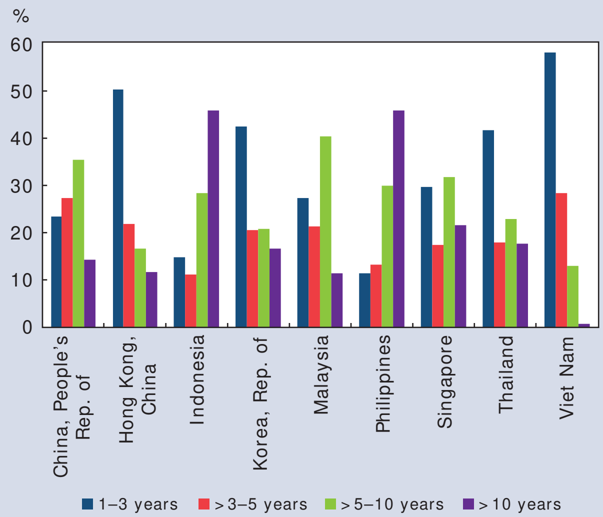
Figure 6b compares the proportion of bonds outstanding in remaining maturities of more than 10 years at the end of 4Q12 with the proportion outstanding at the end of 4Q11 for each economy in the region except Viet Nam. The largest increases in the proportion of bonds with maturities of more than 10 years were in Indonesia and the Philippines. The Philippine government has conducted a series of large debt exchanges in recent years that radically lengthened the maturity structure of Philippine government debt. Indonesia has also engaged in numerous debt buyback and debt switch transactions over most of the last decade. The efforts of both governments have been so successful that they can now issue very long-dated bonds—with maturities of 20 years or more—at very reasonable interest rates. The maturity profiles of government bond markets in Thailand, Malaysia, and the Republic of Korea have also lengthened over the last year, but this has primarily been a result of market conditions as these governments are able to issue in longer maturities at lower interest rates. In the case of the Republic of Korea, an additional factor has been the development over the last 2 years of the 10-year futures contract for Korean Treasury Bonds (KTBs).

Maturity Profiles for Corporate Bonds

The maturity profiles of the region's corporate bond markets vary in structure across the region's individual economies **(Figure 7a)**. Among emerging East Asia's corporate bond markets, Hong Kong, China; the Republic of Korea; and Viet Nam have the largest share of their maturities in a range of more than 1 year to 3 years.

Indonesia's corporate bond market has broadly similar amounts of bonds outstanding in the

Figure 6a: Government Bond Maturity Profiles (individual maturities as % of total)



Note: Data as of end-December 2012.
Source: *AsianBondsOnline*.

Figure 6b: Government Bonds—Maturities of More than 10 years (% of total)

Note: Viet Nam's local currency (LCY) government bonds with maturtities of more than 10 years were less than 1% of the total in 4Q12 and less than 3% in 4Q11.
Source: *AsianBondsOnline*.

ranges of more than 1 year to 3 years and more than 3 years to 5 years. More than 5 years and up to 10 years is the dominant maturity range in the PRC, Malaysia, the Philippines, Singapore, and Thailand. **Figure 7b** shows that the proportion of corporate bonds with maturities of more than 5 years and up to 10 years increased between 4Q11 and 4Q12 for all corporate bond markets in the region except for the PRC and Indonesia.

The proportion of bonds with maturities in excess of 10 years remains small in most corporate bond markets. Malaysia's relatively large stock of longer-dated bonds is a result of its active market for *sukuk*, which typically have longer maturities. The longer-dated bonds in the Singapore market seem to reflect investor appetite for longer maturities from Singapore's large number of blue chip companies, as well as a recent trend toward increased issuance of perpetual bonds with no fixed maturity date. In the PRC, a large portion of the bonds with longer maturities are subordinated debt bonds issued by banks.

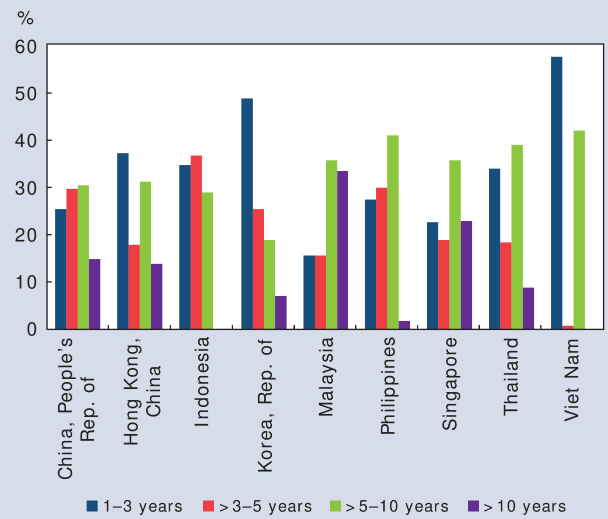
Issuance of bonds with maturities of more than 5 years and up to 10 years, and bonds with maturities of more than 10 years, is expected to grow as the region's corporate bond markets become more well-established and as demand for longer-dated and higher-yielding securities rises among institutional investors in the region.

Government Bond Yield Curves

Most government bond yield curves have shifted downward since the end of 3Q12 on the back of moderating inflation and reduced central bank policy rates.

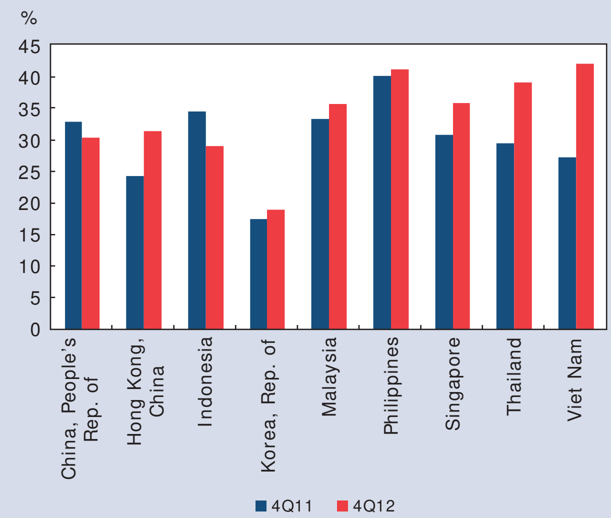
Most government bond yield curves have shifted downward since the end of 3Q12 **(Figure 8)** on the back of stable inflation **(Figures 9a, 9b)** and less active monetary policy stances being taken by most central banks and monetary authorities. Policy rates—with the exception of modest reductions in October in Thailand, the Republic of Korea, and the Philippines—have remained largely unchanged **(Figures 10a, 10b)**. Since the end of 4Q12, the Thai baht and Philippine peso have emerged as the most rapidly appreciating currencies in emerging East Asia, representing a return to the trend that was very much in evidence prior to the 2008 global

Figure 7a: Corporate Bond Maturity Profiles
(individual maturities as % of total)



Note: Data as of end-December 2012.
Source: *AsianBondsOnline*.

Figure 7b: Corporate Bonds—Maturity of More than 5 Years to 10 Years (as % of total)



Source: *AsianBondsOnline*.

financial crisis. Meanwhile, the yen has continued to depreciate rapidly, reflecting in large part a deliberate change in policy by the new Japanese government **(Table 5).**

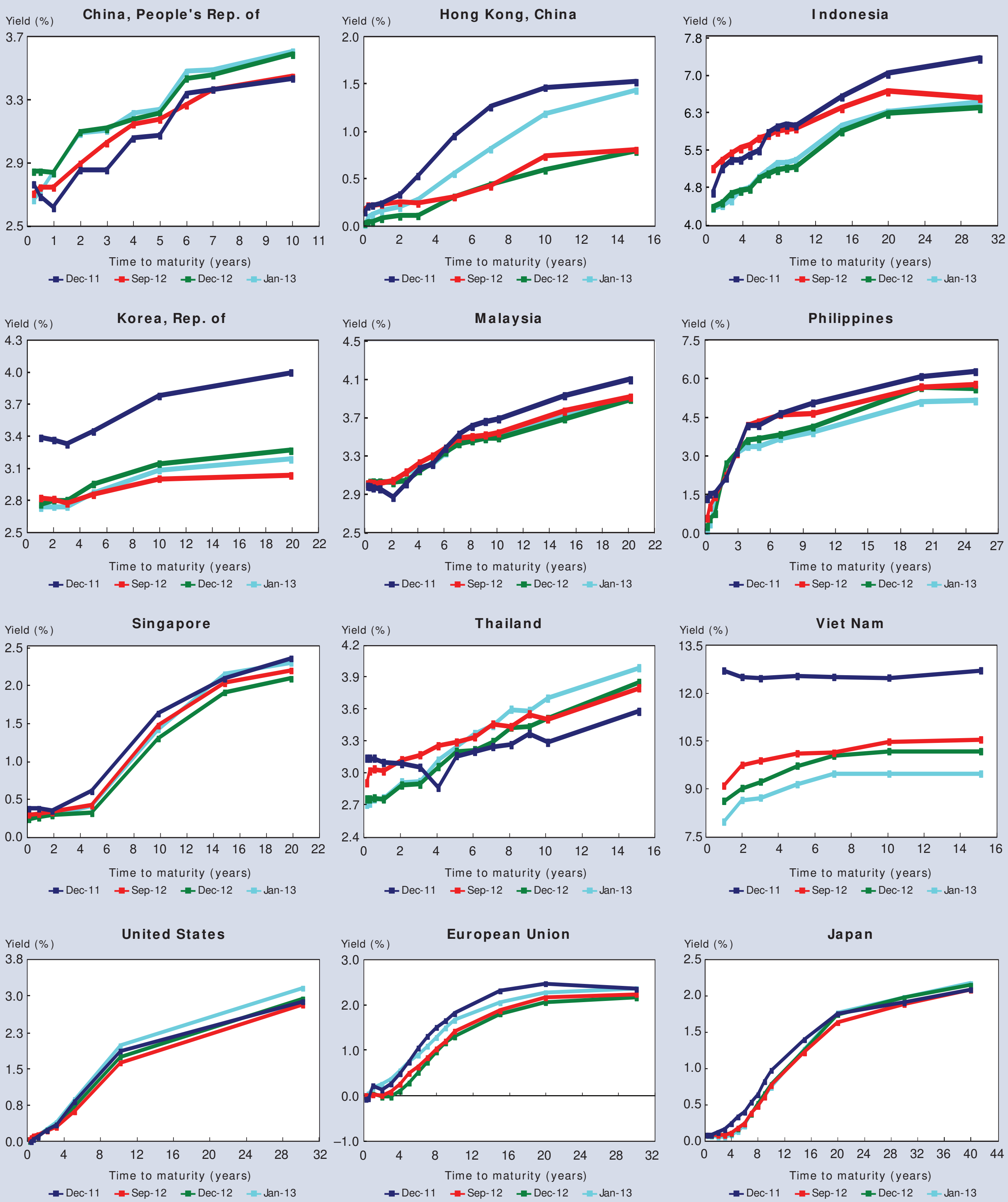
Some of the yield curve movements mentioned above are the result of monetary policy actions undertaken in 4Q12. Both the Bank of Thailand and BOK reduced their policy rates by 25 basis points (bps) in October from 3.00% to 2.75%. Bangko Sentral ng Pilipinas (BSP) reduced its policy rates by 25 bps in October, bringing the overnight borrowing (reverse repurchase) rate and the lending (repurchase) rate to 3.50% and 5.50%, respectively. SBV reduced its discount and refinancing rates by an additional 100 bps each on 24 December. However, SBV's base interest rate remained unchanged at 9.00%. Meanwhile, BNM decided to keep its overnight policy rate steady at 3.00% after its Monetary Policy Committee meeting on 31 January. BNM has kept its benchmark rate at this level since May 2011.

The movements of individual yield curves since the end of 3Q12 have varied widely in response to these factors and other policy actions.

The sharpest downward movements of yield curves were seen in Indonesia, the Philippines, and Viet Nam. Yields in Indonesia dropped the most from the shorter-end through the belly of the curve, shedding 78 bps–87 bps between the end of 3Q12 and the end of 4Q12, before recovering by a modest 1 bp–14 bps in the belly of the curve in January. (Indonesia's policy rate has remained unchanged since February 2012.) Yields in the Philippines continued to fall from the end of 3Q12 through end-January. This decline was the sharpest in the belly of the curve where yields fell more than 90 bps. The downward shift of the Philippine yield curve followed on the heels of a reduction in Philippine policy rates in October, as mentioned above. Meanwhile, yields in Viet Nam fell by as much as 65 bps–116 bps between the end of 3Q12 and end-January.

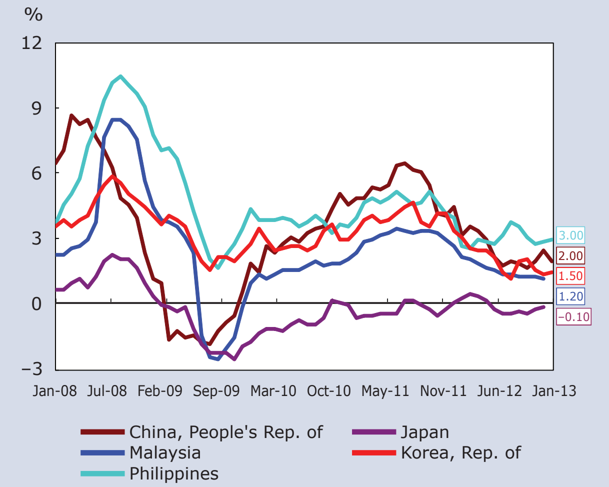
The government bond yield curves of the Republic of Korea and Thailand both steepened between the end of 3Q12 and end-January, although they attained this outcome through different paths. The yield curve for the Republic of Korea steepened sharply between the end of 3Q12 and the end of 4Q12, falling 6 bps at the very short-end and

Figure 8: Benchmark Yield Curves—LCY Bonds



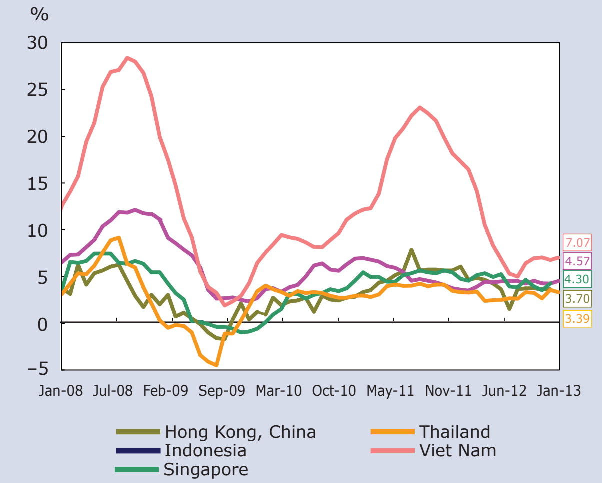
LCY = local currency.
Source: Based on data from Bloomberg LP.

Figure 9a: Headline Inflation Rates



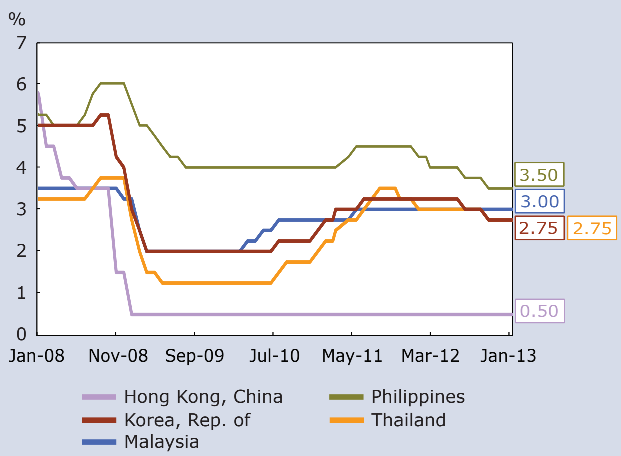
Note: Data as of end-January 2013 except for Japan and Malaysia as of end-December 2012.
Source: Bloomberg LP.

Figure 9b: Headline Inflation Rates



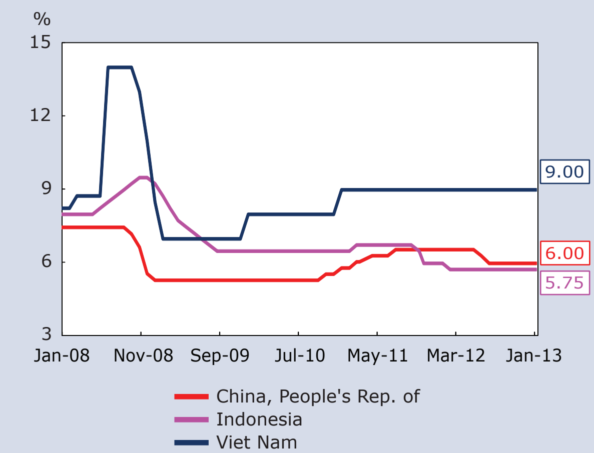
Note: Data as of end-January 2013 except for Hong Kong, China and Singapore as of end-December 2012.
Source: Bloomberg LP.

Figure 10a: Policy Rates



Note: Data as of end-January 2013.
Source: Bloomberg LP.

Figure 10b: Policy Rates



Note: Data as of end-January 2013.
Source: Bloomberg LP except for Viet Nam (State Bank of Viet Nam).

rising 14 bps and 23 bps for the 10- and 20-year maturities, respectively. Yields then fell 6 bps–8 bps over most of the curve in January. The Thai curve, on the other hand, steepened between the end of 3Q12 and end of 4Q12, falling as much as 15 bps–27 bps at the shorter-end of the curve and 8 bps–16 bps in the belly of the curve, while rising 0.4 bps and 5 bps for the 10- and 15-year maturities at the longer-end. The Thai curve then steepened further during the month of January, falling 1 bp–5 bps at the shorter-end of the curve and rising 14 bps–19 bps at the longer-end.

The yield curve for Hong Kong, China shifted downward between the end of 3Q12 and end of 4Q12, but fell more at the shorter-end of the curve, steepening in the process. The yield curve for Hong Kong, China then shifted upward during the month of January, steepening further, with

Table 5: Appreciation (Depreciation) of Emerging East Asian Currencies (%)

Currency	2011	2012	As of 31 January 2013	
	y-o-y	y-o-y	q-o-q	y-o-y
CNY	5.0	1.0	0.2	1.4
HKD	0.07	0.2	(0.06)	0.0
IDR	(0.8)	(7.4)	0.5	(7.7)
KRW	(2.3)	8.3	(2.2)	3.2
MYR	(3.3)	3.6	(1.5)	(2.1)
PHP	(0.1)	6.9	0.8	5.2
SGD	(1.0)	6.1	(1.3)	1.7
THB	(4.7)	3.1	2.5	3.8
VND	(7.3)	0.9	0.0	0.8
JPY	5.5	(11.3)	(5.4)	(16.8)

( ) = negative, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Currency rates refer to local currency per unit of a United States (US) dollar.
2. A positive (negative) value means appreciation (depreciation) of the local currency against the US dollar.
Source: Bloomberg LP.

yields rising around 60 bps at the longer-end of the curve, while only rising about 6 bps at the shorter-end.

The yield curve for Singapore shifted downward between the end of 3Q12 and end of 4Q12, flattening in the process, with yields falling 12 bps–17 bps at the longer-end of the curve, but only 4 bps–6 bps at the shorter-end. In January, however, the Singapore yield curve shifted upward as much as 21 bps–24 bps at the longer-end of the curve, while remaining essentially unchanged at the shorter-end.

The Malaysian yield curve was largely unchanged at end-January compared with the end of 3Q12. It flattened slightly in 4Q12 as yields rose at the shorter-end of the curve but fell from the 2-year maturity through the longer-end of the curve. The curve then steepened slightly in January between the shorter-end, where yields fell, and the belly of the curve, where yields rose slightly.

The PRC's curve continued its upward shift in 4Q12 amid the lack of any policy rate movement as the PRC's economy has remained relatively robust. Policy rates were last cut in the first week of July 2012, when the PBOC reduced its 1-year deposit rate by 25 bps and its 1-year lending rate by 31 bps. The PBOC announced on 21 January that it will begin using short-term liquidity operations as an additional tool to manage the money supply. The main tools for this new effort will be repurchase and reverse repurchase agreements with maturities of less than 7 days. This announcement, however, has had little effect on the market to date.

Finally, the spread between yields for the 2- and 10-year maturities widened in most markets between the end of 3Q12 and end-January **(Figure 11)**. Yield spreads tightened, however, in the PRC, Malaysia, and the Philippines. The tightening of yield spreads in both the PRC and Malaysia was quite modest, reflecting movements of only a few basis points in each case. The tightening of yield spreads in the Philippines, however, was quite dramatic, falling from 240 bps at the end of 3Q12 to 149 bps at end-January on the back of a decline in the Philippines' 10-year yield from 4.68% at end-September to 3.93% at end-January. This reflected the reduction in Philippine policy rates in 4Q12, as mentioned above, as well as continued high levels of capital inflows and workers' remittances.

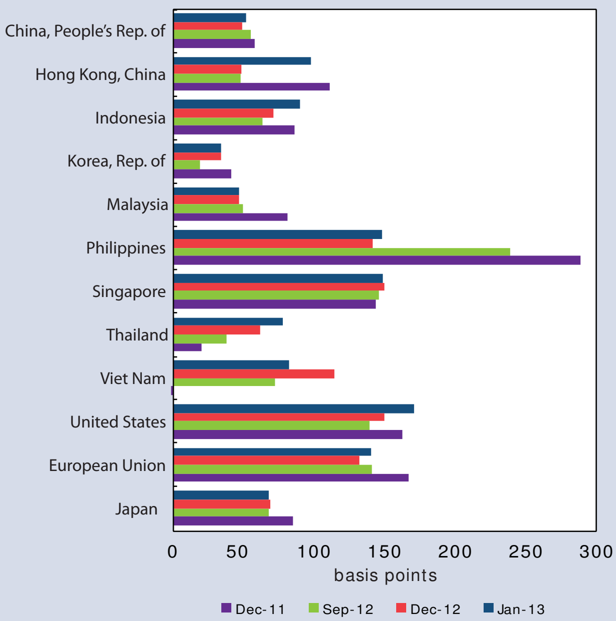
Corporate Bond Credit Spreads

The movement of corporate bond credit spreads between end-September and end-January differed greatly across markets in the region.

Credit spreads for high-grade corporate bonds demonstrated a greater amount of movement between end-December 2011 and end-December 2012 than was the case for high-yield corporate bond credit spreads **(Figure 12a)**.

Credit spreads in the PRC market have shown little movement since end-December 2011 for maturities of more than 10 years. Credit spreads for maturities of less than 5 years, however, have moved a great deal: tightening between end-December 2011 and end-September 2012, then widening between end-September and end-

Figure 11: Yield Spreads Between 2- and 10-Year Government Bonds



Source: Based on data from Bloomberg LP.

December, before finally tightening again between end-December and end-January.

High-grade corporate credit spreads in the Republic of Korea tightened 14 bps–23 bps between end-December 2011 and end-September 2012. They then moved little between end-September and end-December, except for a modest tightening of spreads for maturities of more than 3 years. Credit spreads in the Republic of Korea shifted downward across the entire curve between end-December and end-January.

Corporate bond credit spreads in Malaysia tightened dramatically along most of the curve between end-December 2011 and end-September 2012. They moved little in 4Q12 and in January, except at the very short-end of the curve, gradually tightening between end-September and end-December, and then tightening again in January.

The Thai curve for high-grade corporate bond spreads was among the most active in the region in 2012, tightening in the belly and very short-end of the curve between end-December 2011 and end-September 2012. Thai corporate credit spreads then widened at the very short-end of the curve (maturities of 0.5 years and 1 year) and at the very long-end of the curve (4 years) between end-September and end-December.

The PRC's high-yield corporate credit spreads **(Figure 12b)** widened dramatically between end-December 2011 and end-September 2012, but then tightened modestly along the entire curve between end-September and end-December. The PRC's credit spreads hardly moved at all in January, except at the very short-end of the curve, where spreads widened slightly.

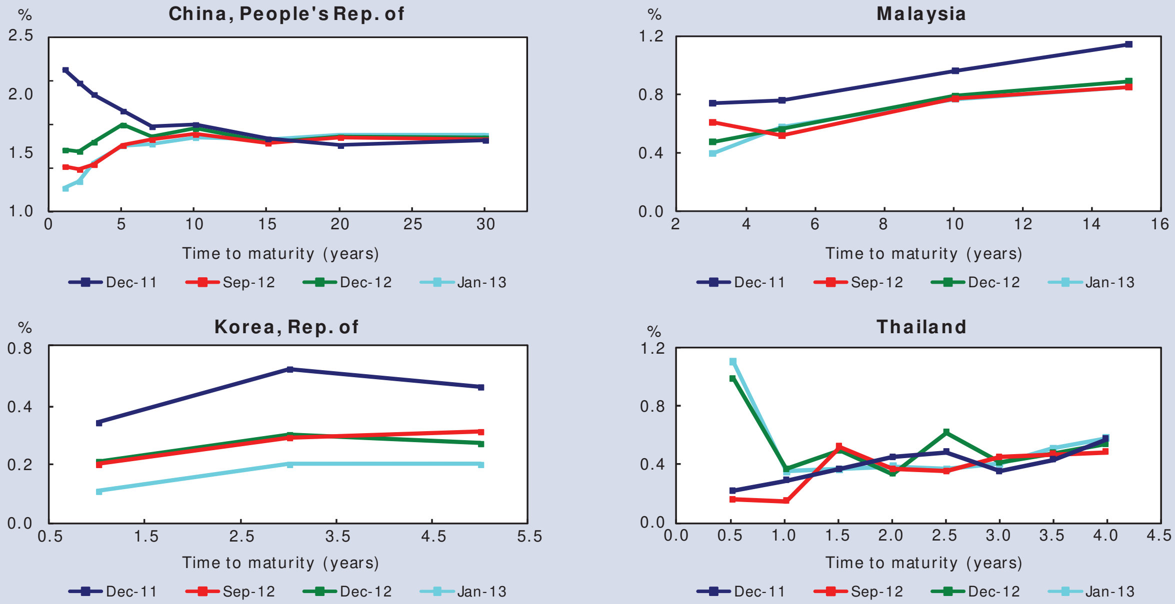
Credit spreads for Malaysian high-yield corporate bonds hardly moved at all between end-December 2011 and end-January 2013. They widened by only a very tiny amount between end-December 2011 and end-September 2012, except at the very long-end of the curve, where they tightened slightly. Between end-September and end-January, high-yield credit spreads for Malaysia tightened by very small amounts, except at the short-end of the curve.

High-yield credit spreads for the Republic of Korea gradually widened between end-September 2012 and end-January 2013. They first widened slightly along the entire curve between end-September and end-December, then further widened along the entire curve in January.

Finally, between end-December 2011 and end-September 2012, most Thai high-yield corporate credit spreads widened for maturities of less than 3 years and the 4-year maturity, while spreads for maturities of 3 and 3.5 years tightened. Between end-September and end-December, credit spreads for all maturities widened, except for the maturities at the very short-end of the curve, which tightened.

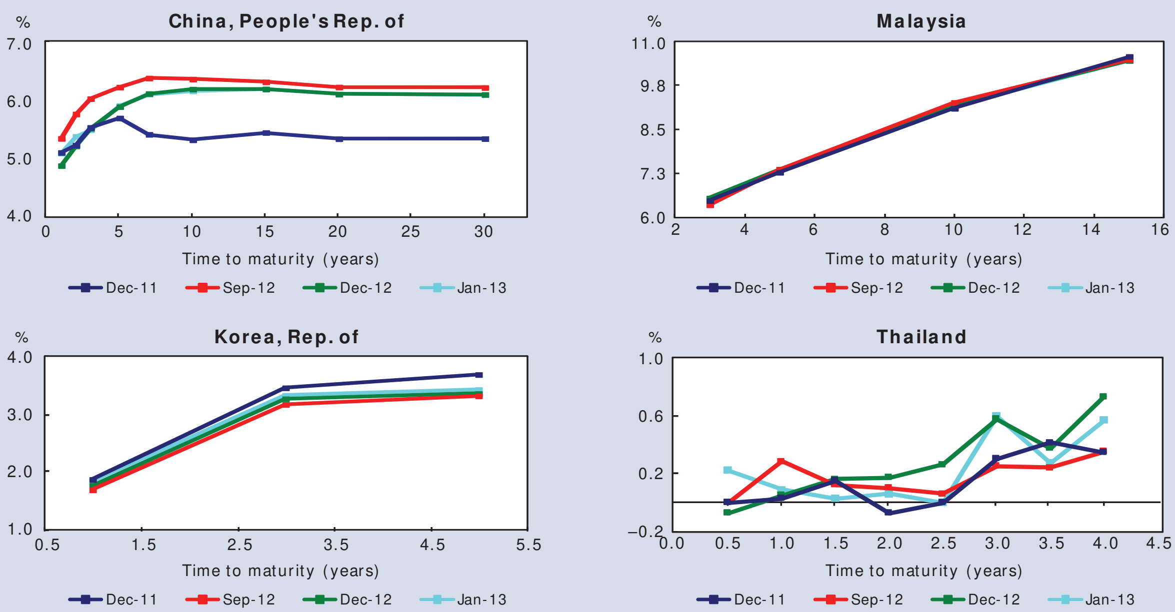
This variation in the movements of corporate bond credit spread curves across the region since end-December 2011 underlines the fact that liquidity is still very limited in emerging East Asian corporate bond markets.

Figure 12a: 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 12b: Credit Spreads—Lower-Rated LCY Corporates vs. 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).

Box 1: India's Local Currency Bond Market: What Can ASEAN+3 Learn from Its Development?[a]

Overview

The local currency (LCY) bond market in India consists of the government securities market, which includes central and state government securities, and the corporate bond market. Government securities can be classified into Government of India (GOI) bonds, treasury bills, cash management bills, special securities, state government bonds, and agency bonds. GOI bonds are long-term debt instruments issued to meet the government's long-term financing requirements, especially the financing of the government's fiscal deficit and infrastructure projects. Treasury bills are short-term debt instruments with tenors of 91, 182, and 364 days, while cash management bills have tenors of less than 91 days; both are used to facilitate the government's cash management operations. Special securities are issued to certain entities—such as fertilizer companies, the Food Corporation of India, and oil marketing companies—to serve as compensation in lieu of cash subsidies.

Major participants in the government securities market include commercial banks, insurance companies, and primary dealers. Other participants include co-operative banks, mutual funds, pension funds, and regional rural banks. The Reserve Bank of India (RBI) is the regulator of the government securities market, as well as the repurchase agreement (repo) market, the money market, and the over-the-counter (OTC) derivatives market. Government securities are auctioned by RBI on behalf of the government. RBI uses the Negotiated Dealing System (NDS), which was introduced in 2002, as the primary auction platform for government securities. Secondary trading of government securities is made through OTC, NDS, or the Negotiated Dealing System–Ordered Matching (NDS–OM), which was introduced by the RBI in 2005 and is maintained by the Clearing Corporation of India Limited (CCIL). CCIL serves as the clearing and settlement agency for government securities. The settlement system for government securities is based on delivery-versus-payment (DVP).

In the corporate bond market, the major participants are institutional investors, such as banks, non-financial corporates, insurance companies, pension funds, and primary dealers. However, retail investors are gradually entering the market. The corporate bond market is regulated by RBI with respect to repo transactions, OTC derivatives, and banks' exposure to corporate bonds. The Securities and Exchange Board of India (SEBI) also acts as a regulator of the corporate bond market, except for unlisted privately placed bonds. Private placements dominate the primary market for corporate bonds.

The government in recent years has introduced policy measures to develop the LCY government and corporate bond markets in India. In February, RBI decided to allow standalone primary dealers to become members of SEBI-approved stock exchanges in order to conduct proprietary transactions in corporate bonds. In January, the use of repos on certificates of deposit, commercial paper, and non-convertible debentures with maturities of less than 1 year was allowed. (The use of repos on corporate bonds was first permitted in January 2010.)

In January, RBI decided to increase the sub-limit on investment by foreign institutional investors (FIIs) and long-term investors—such as central banks, endowment funds, insurance funds, multilateral agencies, pension funds, and sovereign wealth funds—in government-dated securities by US$5 billion to reach US$15 billion, bringing the total limit on government securities to US$25 billion. Also, RBI decided to raise the limit on FII investment in corporate non-infrastructure debt by US$5 billion to reach US$25 billion; this increased the total corporate debt limit from US$45 billion to US$50 billion, which includes the sub-limit for infrastructure bonds of US$25 billion.

Meanwhile, the 1-year lock-in period and 5-year initial maturity restriction were both removed for the US$12 billion sub-category for investment in corporate long-term infrastructure bonds, effective February 2013, while the 1-year lock-in period for the US$10 billion reserved for FII investments in Infrastructure Debt Funds was also removed. In December 2011, the guidelines on the use of credit default swaps (CDS) on corporate bonds took effect, enabling market participants to hedge the credit risk associated with corporate bonds.

In August 2012, RBI released a report of the Working Group on Enhancing Liquidity in Government

[a] The Association of Southeast Asian Nations (ASEAN)+3 comprises Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam, plus the People's Republic of China; Hong Kong, China; and the Republic of Korea.

Securities and the Interest Rate Derivatives Market that outlined recommendations to improve secondary market liquidity. Among the main recommendations regarding the government securities market were (i) consolidation of outstanding government securities based on a plan specified in the report, (ii) a gradual increase in the FII limit on government securities, (iii) the allocation of specific securities to each primary dealer for market-making, (iv) gradual reduction in the upper limit on the held-to-maturity portfolio, and (v) development of a term repo market.

How Does Bond Market Development in India Compare with Emerging East Asia?

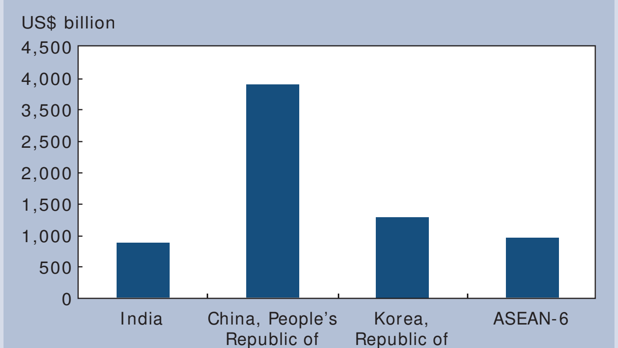
India's LCY bond market is one of the largest and fastest-growing bond markets in developing Asia. By the end of 2012, the outstanding amount of India's LCY bonds stood at INR55.8 trillion (US$1.0 trillion), which is about 27% the size of the People's Republic of China's (PRC) LCY bond market, 69% the size of the Republic of Korea's market, and 94% the size of the combined markets of six members of the Association of Southeast Asian Nations (ASEAN) **(Figure B1)**.[b] On an LCY basis, the outstanding size of the Indian bond market grew 24% in 2012 on the back of buoyant growth in both government securities and corporate bonds.

Government securities account for the majority of Indian LCY bonds, comprising 79% of total LCY bonds outstanding at the end of 2012. The share of LCY government securities in India was larger than the shares of LCY government bonds in the PRC, the Republic of Korea, and emerging East Asia, which stood at 73%, 39%, and 64%, respectively **(Figure B2)**. The relatively large share of government securities in India can be attributed to the government's financing of its wide fiscal deficit and heavy debt burden. In 2012, the outstanding size of LCY government securities climbed 23% to INR44.2 trillion.

Between 2000 and 2012, the average annual growth rate of Indian LCY bonds outstanding (on a US$ basis) was 18%, as both government securities and corporate bonds grew steadily by 18% and 19%, respectively. In comparison, the PRC's LCY bond market (on a US$ basis) grew by an average annual rate of 28% during this period, as LCY government bonds climbed 25% and LCY corporate bonds soared 64% **(Figure B3)**.

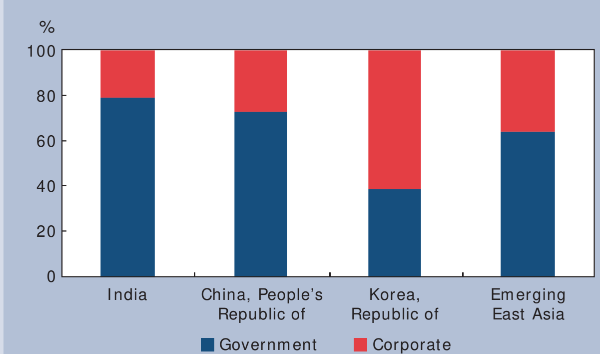
GOI bonds comprised the largest share of Indian LCY government securities, amounting to INR30.3 trillion, or 68% of the total at the end of 2012, compared with 81% in 2000 **(Figure B4a)**. In addition, municipal and state agency bonds constituted 20% of total government securities at the end of 2012, an increase from a share of 14% in 2000, and grew by an average annual rate of 22% (on an LCY basis) between 2000 and 2012. Such growth in municipal and state agency bonds stems from an increasing need by municipalities to finance their urban infrastructure

Figure B1: Size of LCY Bond Markets



LCY = local currency.
Notes:
1. Data as of 31 December 2012.
2. ASEAN-6 comprises Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.
Source: *AsianBondsOnline*, OREI calculations based from Bloomberg data.

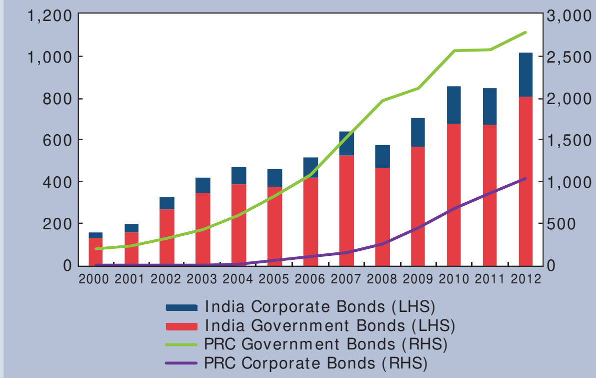
Figure B2: LCY Government and Corporate Bonds as Share of Total



LCY = local currency.
Note:
1. Data as of 31 December 2012.
2. ASEAN-6 comprises Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.
Source: *AsianBondsOnline*, OREI calculations based from Bloomberg data.

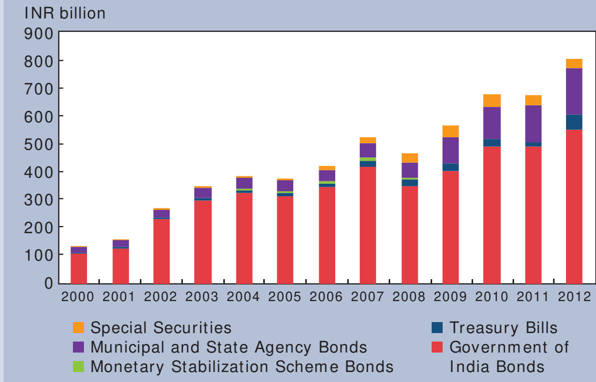
[b] Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

Figure B3: LCY Corporate and Government Bonds Outstanding in India and the PRC
(US$ billion)



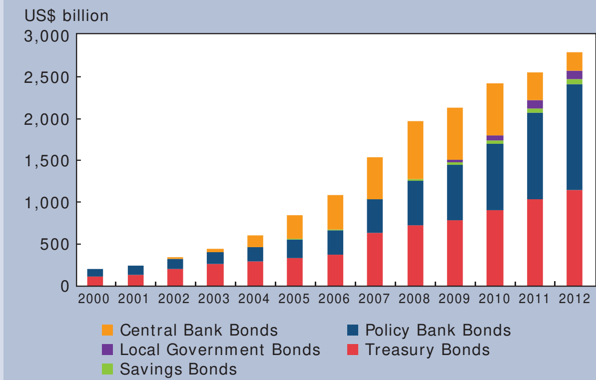
LCY = local currency, LHS = left-hand side, PRC = People's Republic of China, RHS = right-hand side.
Source: *AsianBondsOnline*, OREI calculations based on Bloomberg data.

Figure B4a: LCY Government Securities Outstanding in India by Type of Instrument



LCY = local currency.
Source: Bloomberg LP.

Figure B4b: LCY Government Securities Outstanding in the PRC by Type of Instrument



LCY = local currency, PRC = People's Republic of China.
Source: Bloomberg LP.

projects. On the other hand, the largest share in the PRC's LCY government bond market at the end of the year consisted of policy bank bonds—which are bonds issued by the Agricultural Development Bank of China, China Development Bank, and Export–Import Bank of China—amounting to CNY7.9 trillion (US$1.3 trillion) or 46% of total government bonds outstanding at the end of 2012, followed by treasury bonds at 41% **(Figure B4b)**.

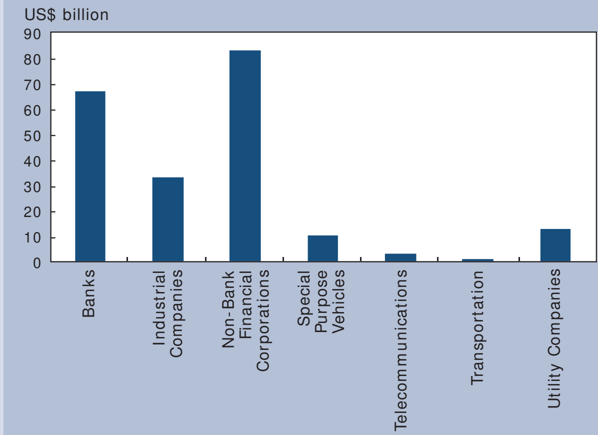
By the end of 2012, the outstanding amount of LCY corporate bonds in India stood at INR11.6 trillion, which is larger than most emerging East Asian corporate bond markets, except for the PRC and the Republic of Korea. Financial institutions comprised the largest issuer group of corporate bonds in India, as banks and non-bank financial corporations constituted 32% and 40%, respectively, of total corporate bonds outstanding at the end of 2012 **(Figure B5a)**. The two largest non-bank financial institution bond issuers were state-owned companies: Power Finance Corporation and Rural Electrification Corporation.

Meanwhile, in the PRC, industrial companies are the largest issuer of LCY corporate bonds, with bonds outstanding amounting to CNY4.3 trillion, which accounted for 46% of the total, as of mid-January 2013 **(Figure B5b)**. Banks are the second-largest issuer of LCY corporate bonds in the PRC, constituting 16% of the total.

LCY government securities with tenors of more than 5 years and up to 10 years comprised the largest share of India's government securities market, which is similar to the situation in the PRC. At the end of 2012, the share of this segment in India was 45%, while for the PRC it stood at 35% **(Figure B6a)**. Longer-dated government securities, specifically those with tenors of more than 10 years, had the second-highest share in the government securities market in India at 30%; in the PRC, this segment comprised the smallest share at 14%. In the LCY corporate bond market, tenors of more than 5 years and up to 10 years also accounted for the largest share in both India and the PRC at 36% and 30%, respectively **(Figure B6b)**.

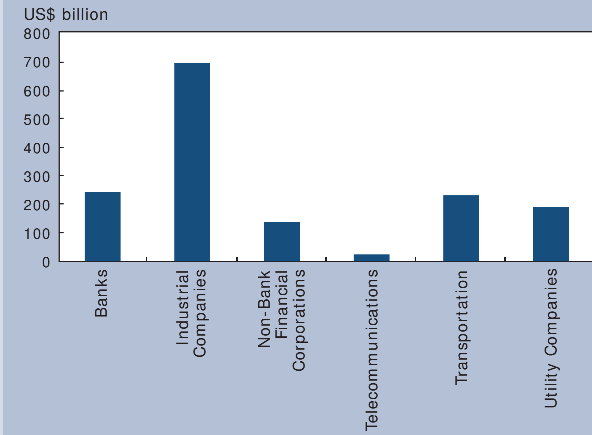
Liquidity in India's LCY bond market is more pronounced for government securities than for corporate bonds, similar to most emerging East Asian markets; this can be seen in the higher turnover ratio

Figure B5a: LCY Corporate Bonds Outstanding in India by Sector



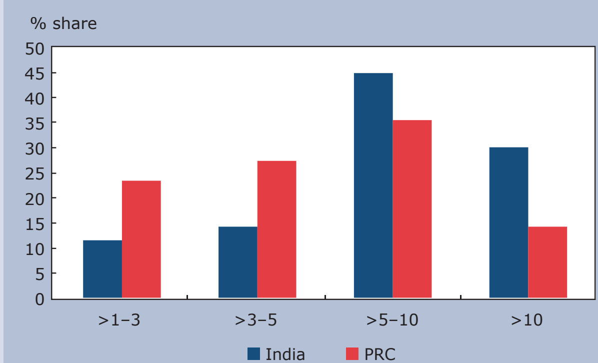
LCY = local currency.
Note: Data as of 31 December 2012.
Source: Bloomberg LP.

Figure B5b: LCY Corporate Bonds Outstanding in the PRC by Sector



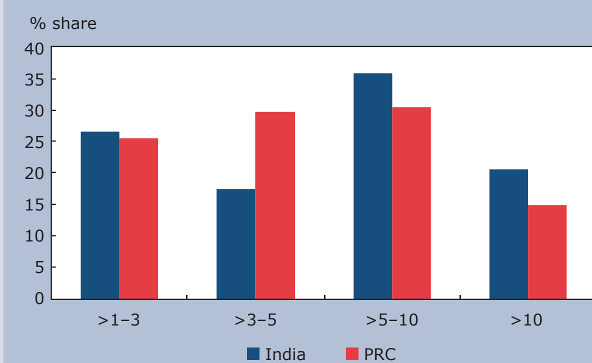
LCY = local currency, PRC = People's Republic of China.
Note: Data as of 15 January 2013.
Source: Bloomberg LP.

Figure B6a: Maturity Profile of LCY Government Bonds in India and the PRC



LCY = local currency, PRC = People's Republic of China.
Note: Data as of 31 December 2012.
Source: *AsianBondsOnline*, OREI calculations based on Bloomberg data.

Figure B6b: Maturity Profile of LCY Corporate Bonds in India and the PRC



LCY = local currency, PRC = People's Republic of China.
Note: Data as of 31 December 2012.
Source: *AsianBondsOnline*, OREI calculations based on Bloomberg data.

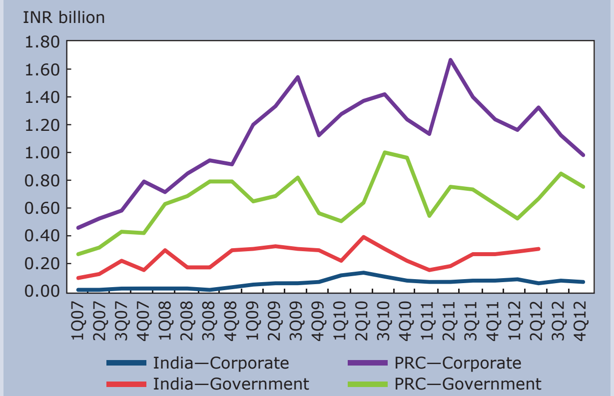
for government securities compared with corporate bonds. However, there appears to be greater bond market liquidity in the PRC than in India as evidenced by the former's higher turnover ratios for both government and corporate bonds **(Figure B7)**.

Net foreign institutional investment into the Indian debt market stood at INR332.9 billion in the first 11 months of 2012 **(Figure B8)**. Net foreign institutional investments into the debt market had soared to more than INR400 billion in 2010 and 2011. This trend of increasing foreign investor participation in the LCY bond market in India in recent years follows a pattern seen in several ASEAN+3 markets, including Indonesia, Japan, the Republic of Korea, Malaysia, and Thailand.

Infrastructure Financing and Public–Private Partnerships

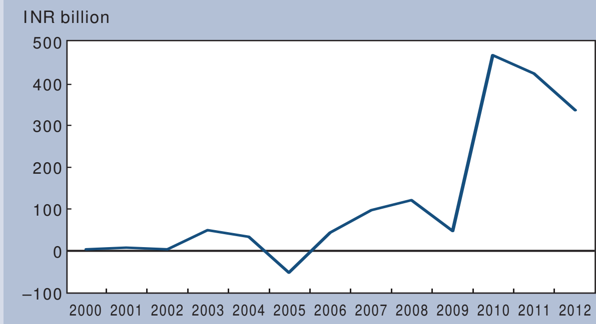
The amount of infrastructure investment with private sector participation in India is relatively large. Between 1990 and 2011, infrastructure investment with private participation in India totaled US$273.4 billion, which was more than in several ASEAN+3 countries during the same period, including the PRC (US$54.3 billion), Indonesia

Figure B7: Turnover Ratios of LCY Government and Corporate Bonds in India and the PRC



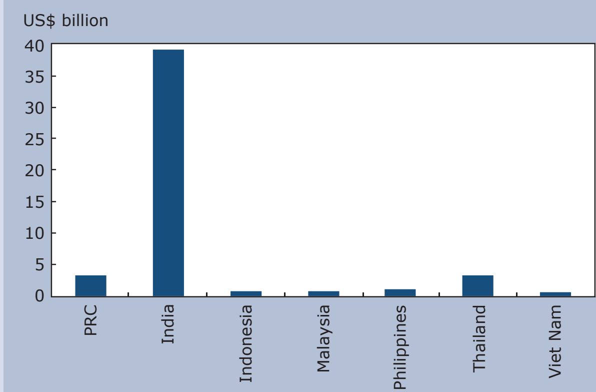
LCY = local currency, PRC = People's Republic of China.
Note: Data as of 31 December 2012.
Source: *AsianBondsOnline*, OREI calculations based on data from Bloomberg data, Reserve Bank of India (RBI), and Securities and Exchange Board of India (SEBI).

Figure B8: Net Foreign Institutional Investment in Debt Instruments in India



Note: 2012 data through November.
Source: Securities and Exchange Board of India (SEBI).

Figure B9: Infrastructure Investment with Private Sector Participation



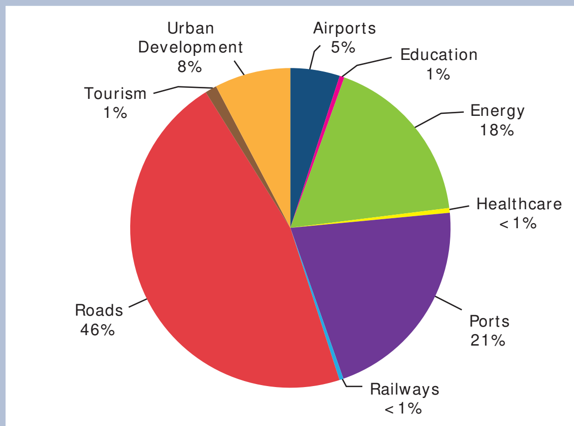
PRC = People's Republic of China.
Note: Data for 2011.
Source: The World Bank.

(US$43.4 billion), Malaysia (US$50.8 billion), the Philippines (US$54.1 billion), Thailand (US$43.4 billion), and Viet Nam (US$8.7 billion). In 2011 alone, private infrastructure investment stood at US$38.9 billion in India, compared with the PRC's US$3.3 billion, Thailand's US$3.3 billion, the Philippines' US$1.1 billion, Malaysia's US$869 million, Indonesia's US$848 million, and Viet Nam's US$627 million **(Figure B9)**.

India's infrastructure investment needs continue to be significant. The Committee on Infrastructure Financing estimated in its report released in October 2012 that India's infrastructure development under the 12th Five Year Plan for 2012–17 will require INR51.5 trillion, of which 47% will come from public–private partnerships (PPP). Based on the Ministry of Finance's PPP database, there have been a total of 758 PPP projects in India, with estimated cumulative investments of INR3.8 trillion, through July 2011. About 46% of the investments in PPP projects in India (INR1.8 trillion) were in roads, followed by ports and energy with shares of 21% and 18%, respectively **(Figure B10)**. The LCY bond market is an area that could play an important role in supporting the country's infrastructure development.

The main source of infrastructure financing in India is the banking sector. However, future bank lending is likely to be constrained by the need for capital augmentation necessitated by Basel III guidelines, by their asset–liability management (ALM) mismatch, and by regulatory limits in their lending and investment exposure. In this regard, a well-developed corporate bond market is essential to help support infrastructure financing, particularly by attracting long-term financing from institutional investors such as insurance companies and pension funds. Various regulatory measures have been put forth by the government to develop the corporate bond market, such as raising the FII limit on investment in corporate bonds, introducing CDS as a hedging tool against credit risks associated with corporate bonds, and allowing the use of repos for corporate bonds. Further reforms are needed as the market for corporate debt faces challenges such as insufficient liquidity, a narrow investor base, and the lack of a robust bankruptcy framework, among others.

Figure B10: Investment in PPP Projects in India by Sector (% share)



PPP = public–private partnership.
Note: Data as of July 2011.
Source: Ministry of Finance, Government of India.

The Government of India has embarked on initiatives and policy measures to support infrastructure financing:

- RBI has provided regulatory measures that enhanced the exposure limits of banks for infrastructure lending, allowed banks to invest in unrated bonds issued by companies engaged in infrastructure activities within the limit of 10% for unlisted statutory liquidity ratio (SLR) securities, and enabled the use of foreign reserves for infrastructure development, among others.

- The government established the India Infrastructure Finance Company (IIFCL) in 2006 to provide long-term financial assistance to viable infrastructure projects and has permitted the Industrial Finance Corporation of India (IFCI), Infrastructure Development Finance Company (IDFC), Life Insurance Corporation of India (LIC), and infrastructure financing entities to issue tax-saving infrastructure bonds.

- The government also created the India Infrastructure Project Development Fund (IIPDF), with basic financing of INR1 billion, to support the development of bankable and credible PPP projects.

- In January, IIFCL launched its first credit-enhanced infrastructure bond in India with the support of the Asian Development Bank (ADB).

In September 2012, ADB approved an INR7.2 billion facility, designed in tandem with IIFCL, to develop the infrastructure bond market in India by channeling insurance and pension funds into infrastructure sectors, such as energy, railways, roads, and water. Under this facility, ADB, IIFCL, and other local finance companies will provide partial guarantees to LCY bonds issued by Indian companies for the funding of infrastructure projects. The partial guarantees will boost the credit rating of a typical infrastructure project from BBB- or A to AA, allowing pension funds and insurance companies to purchase the bonds.

Infrastructure needs for the ASEAN+3 region are also huge. Based on data from Bhattacharyay (2010),[c] the combined infrastructure investment needs of ASEAN+3 (excluding Brunei Darussalam, Japan, the Republic of Korea, and Singapore) for 2010–20 total US$5.5 trillion, which would account for 66% of Asia's total infrastructure investment needs. The PRC has the largest amount of infrastructure investment needs in the ASEAN+3 region at US$4.4 trillion, followed by Indonesia (US$450 billion), Malaysia (US$188.1 billion), Thailand (US$172.9 billion), the Philippines (US$127.1 billion), Viet Nam (US$109.8 billion), Myanmar (US$21.7 billion), Cambodia (US$13.4 billion), and Lao People's Democratic Republic (US$11.4 billion).

Initiatives to spearhead infrastructure development have been conducted in several ASEAN+3 countries. In Malaysia, DanaInfra Nasional Berhad was created in March 2011 as a special purpose vehicle designed to finance the government's infrastructure projects. It launched the DanaInfra Retail Sukuk, the country's first exchange-traded bonds and *sukuk* (Islamic bonds), which are known as ETBS. The ETBS were first offered to retail investors in January and listed on Bursa Malaysia in February to help finance the country's mass rapid transit projects. The initial issuance amounted to MYR300 million and carried a maturity of 10 years.

In the Philippines, two PPP projects had been awarded to the private sector as of September 2012: (i) the PPP for School Infrastructure Project Phase 1 with an estimated project cost of US$389 million, and (ii) the Daang–Hari SLEX Link Road Project with an estimated cost of US$46.6 million. The school

[c] B.N. Bhattacharyay. 2010. Estimating Demand for Infrastructure in Energy, Transport, Telecommunications, Water, and Sanitation in Asia and the Pacific: 2010–2020. *ADBI Working Paper* No. 48. Tokyo: Asian Development Bank Institute (ADBI).

infrastructure project, which aims to build around 9,300 classrooms in three regions in the northern part of the country, was awarded to two private sector consortiums in August 2012. The Citicore-Megawide Consortium Inc. sold PHP6.5 billion worth of 10-year bonds with a one-year grace period to local banks in December 2012 with the proceeds to be used to fund the construction of classrooms under the school infrastructure project. The road project was awarded to Ayala Corporation. Meanwhile, there are around 20 PPP projects that are still in the pipeline. To encourage financial institutions to participate in the Philippine government's PPP program, the Monetary Board of the Philippine central bank—Bangko Sentral ng Pilipinas (BSP)—decided to extend for another 3 years the original 3-year period allowing a separate single borrower's loan limit of 25% of the net worth of the lending bank for undertaking infrastructure or development projects through the PPP program.

As mentioned above, India's infrastructure investment needs are relatively large and part of the needed financing can be sourced from PPPs. Its LCY bond market can also play a key role in infrastructure development. Specifically, bond financing will have a larger role as future bank financing is likely to be constrained by Basel III guidelines and regulatory limits on lending and investment. India has seen significant amounts of private investment in its infrastructure sector and robust growth in its LCY bond market amid a number of market and regulatory developments and initiatives undertaken by the government.

Similarly, the infrastructure investment needs of the ASEAN+3 region are also large. However, private sector investment in the region's infrastructure remains low when compared with India. Furthermore, several ASEAN+3 bond markets are not as developed as India's. Against this backdrop, the lessons from the experiences of India in harnessing private infrastructure investment and promoting bond financing for infrastructure may be useful for ASEAN+3 policymakers seeking to spearhead infrastructure development.

G3 Currency Issuance

Emerging East Asia's G3 currency issuance reached US$131 billion in 2012; robust issuance activity in January suggests that G3 currency issuance in 2013 might match or exceed the impressive levels of 2012.

G3 currency bond issuance in emerging East Asia soared to US$130.8 billion in 2012, while issuance in January 2013 alone reached US$16.3 billion **(Table 6)**. The three largest amounts of G3 issuance in 2012 came from the PRC (US$31 billion); the Republic of Korea (US$30.9 billion); and Hong Kong, China (US$27.9 billion). The fourth and fifth largest issuers were Singapore (US$12.8 billion) and Indonesia (US$12.1 billion). The most interesting aspect of these outcomes is that the PRC has displaced the Republic of Korea from its traditional position as the largest G3 currency issuer in the region. (G3 currency bond issuance out of the PRC last year reflected large amounts of issuance from SOEs and real estate companies.) In addition, Hong Kong, China more than tripled its 2011 volume of G3 currency issuance (US$8.6 billion) in 2012.

Other noteworthy G3 currency issuance patterns in the region include Singapore achieving a six-fold increase in its level of G3 currency issuance from US$1.9 billion in 2011 to US$12.8 billion in 2012, and Indonesia doubling its G3 currency issuance in 2012 to US$12.1 billion, with as much of the increase coming from the corporate sector as from the government. In 2012, the Indonesian government issued two US$-denominated bonds totaling US$3.75 billion and one *samurai* bond worth JPY60 billion (US$92 million), compared to only one sovereign bond of US$2.5 billion in 2011. The only market to not significantly increase its G3 currency issuance in 2012 was the Philippines, whose issuance of US$3.65 billion was only slightly higher than US$3.45 billion of new issuance in 2011.

The largest individual G3 bond issues in 2012 were the two Indonesian sovereign bonds of US$2.0 billion and US$1.75 billion, followed

Table 6: G3 Currency Bond Issuance

2012			1–31 January 2013		
Issuer	**US$ (million)**	**Issue Date**	**Issuer**	**US$ (million)**	**Issue Date**
China, People's Rep. of	**31,115**		**China, People's Rep. of**	**4,452**	
CNOOC Finance 3.875% 2022	1,500	2-May-12	Country Garden 7.5% 2023	750	10-Jan-13
Sinopec 2.75% 2017	1,000	17-May-12	Agile Property 8.25% Perpetual	700	18-Jan-13
Sinopec 3.9% 2022	1,000	17-May-12	Caifu Holdings 8.75% 2020	600	24-Jan-13
Sinopec 4.875% 2042	1,000	17-May-12	Kaisa Group 10.25% 2020	500	8-Jan-13
COSL Finance 3.25% 2022	1,000	6-Sep-12	Yuexiu Property 3.25% 2018	350	24-Jan-13
Others	25,615		Hopson Development 9.875% 2018	300	16-Jan-13
Hong Kong, China	**27,942**		Fantasia Holdings 10.75% 2020	250	22-Jan-13
Hutchison Whampoa 2.5% 2017	1,649	6-Jun-12	Powerlong Real Estate 11.25% 2018	250	25-Jan-13
Hutchison Whampoa 4.625% 2022	1,500	13-Jan-12	Others	752	
Others	24,793		**Hong Kong, China**	**5,242**	
Indonesia	**12,136**		Shimao Property 6.625% 2020	800	14-Jan-13
Indonesia (sovereign) 3.75% 2022	2,000	25-Apr-12	Sun Hung Kai Properties 3.625% 2023	500	16-Jan-13
Indonesia (sovereign) 5.25% 2042	1,750	17-Jan-12	Metropolitan Light 5.25% 2018	450	17-Jan-13
Pertamina 6.0% 2042	1,250	3-May-12	Champion MTN 3.75% 2023	400	17-Jan-13
Others	7,136		ICBC Asia 1.11% 2014	400	11-Jan-13
Korea, Rep. of	**30,911**		Hengdeli Holdings 6.25% 2018	350	29-Jan-13
Korea Eximbank 4.0% 2017	1,250	11-Jan-12	Lai Sun Finance 5.7% 2018	350	18-Jan-13
Korea Eximbank 5.0% 2022	1,000	11-Jan-12	Cosco Pacific Finance 4.375% 2023	300	31-Jan-13
Korea Eximbank 1.25% 2015	1,000	20-Nov-12	Hysan MTN 3.5% 2023	300	16-Jan-13
Korea National Oil Corp. 3.125% 2017	1,000	3-Apr-12	ICBC Asia 1.11 2014	300	11-Jan-13
Samsung Electronics 1.75% 2017	1,000	10-Apr-12	Others	1,092	
Others	25,661		**Indonesia**	**500**	
Malaysia	**6,778**		Indo Energy Finance 6.375% 2023	500	24-Jan-13
1MDB Energy 5.99% 2022	1,750	21-May-12	**Korea, Rep. of**	**2,147**	
Malayan Banking 3.25% 2022	800	20-Sep-12	Korea Development Bank 1.0% 2016	500	22-Jan-13
SSG Resources 4.25% 2022	800	4-Oct-12	Korea Development Bank 1.5% 2018	500	22-Jan-13
Others	3,428		Shinhan Bank 1.875% 2018	350	30-Jan-13
Philippines	**3,625**		Kookmin Bank 1.375% 2016	300	15-Jan-13
Philippines (sovereign) 5.0% 2037	1,500	13-Jan-12	Others	497	
Philippines (sovereign) 2.75% 2023	500	4-Dec-12	**Malaysia**	**845**	
SM Investments 4.25% 2019	500	17-Oct-12	Sime Darby 2.053% 2018	400	29-Jan-13
Others	1,125		Sime Darby 3.29% 2023	400	29-Jan-13
Singapore	**12,755**		Others	45	
Temasek Financial 2.375% 2023	1,200	23-Jul-12	**Philippines**	**1,150**	
DBS Bank 2.35% 2017	1,000	28-Feb-12	JG Summit 4.375% 2023	750	23-Jan-13
OCBC Bank 1.625% 2015	1,000	13-Mar-12	ICTSI 4.625% 2023	400	16-Jan-13
OCBC Bank 3.15% 2023	1,000	11-Sep-12	**Singapore**	**930**	
Others	8,555		Olam International	750	29-Jan-13
Thailand	**5,000**		Others	180	
PTT Global Chemical 4.25% 2022	1,000	19-Mar-12	**Thailand**	**1,000**	
Others	4,000		Thai Oil 3.625% 2023	500	23-Jan-13
Viet Nam	**550**		Thai Oil 4.875% 2043	500	23-Jan-13
Emerging East Asia Total	**130,814**		**Viet Nam**	**0**	
Memo Items:			**Emerging East Asia Total**	**16,266**	
India	**11,217**		**Memo Items:**		
Reliance Holdings 5.4% 2022	1,500	14-Feb-12	**India**	**1,250**	
State Bank of India 4.125% 2017	1,250	1-Aug-12	Export–Import Bank of India 4.0% 2023	750	14-Jan-13
Others	8,467		Power Grid Corporation of India 3.875% 2023	500	17-Jan-13
Sri Lanka	**2,434**		**Sri Lanka**	**0**	

Source: Bloomberg LP, newspaper and wire reports.

by corporate issuances from 1MDB Energy in Malaysia (US$1.75 billion), Hutchison Whampoa's 5-year bond issued in June (US$1.65 billion) and 10-year bond issued in January (US$1.5 billion), and CNOOC Finance's 10-year bond issued in May (US$1.5 billion), and the 25-year sovereign bonds issued by the Philippines (US$1.5 billion).

G3 currency issuance continued to increase rapidly in January, reaching US$16.3 billion by the end of the month, driven largely by issuance from Hong Kong, China and the PRC. In fact, Hong Kong, China was the largest issuer in January, issuing G3 currency bonds worth US$5.2 billion, which exceeded the PRC's issuance of US$4.5 billion. Much of the January G3 currency issuance in the PRC was from real estate companies. The sources of G3 currency issuance in other markets in the region were more diverse, including from the Korea Development Bank in the Republic of Korea, Sime Darby in Malaysia, JG Summit in the Philippines, and Olam International in Singapore.

Market Returns

Market returns for emerging East Asia's bond and equity markets were exceptionally strong in 2012, but weakened markedly in January 2013.

Market returns for emerging East Asia's bond and equity markets were exceptionally strong in 2012, but weakened markedly in January 2013. The Pan-Asia IBoxx Bond Index rose 7.6% in 2012, but declined 0.4% in January **(Table 7)**. With regard to equities, the MSCI Far East ex-Japan Index rose 19.0% in 2012, but its year-to-date return for January was a more sluggish 1.3% **(Table 8)**.

The strongest performer in the IBoxx Asian Bond Fund Index in January was the Philippines with a US$ unhedged total return of 4.3%, compared with –0.4% for the region as a whole. The only other markets with a positive return in the IBoxx

Table 7: iBoxx Asian Bond Fund Index Family Returns

Market	Modified Duration (years)	2011 Returns (%)		2012 Returns (%)		2013 YTD Returns	
		LCY Total Return Index	US$ Unhedged Total Return Index	LCY Total Return Index	US$ Unhedged Total Return Index	LCY Total Return Index	US$ Unhedged Total Return Index
China, People's Rep. of	6.66	5.4	9.9	2.4	3.5	0.3	0.4
Hong Kong, China	4.07	5.2	5.2	3.5	3.7	(1.1)	(1.2)
Indonesia	7.18	19.7	18.4	12.3	6.7	(0.9)	(2.2)
Korea, Rep. of	4.76	6.2	4.7	6.2	13.5	0.6	(1.1)
Malaysia	5.14	4.7	1.8	4.1	7.9	0.2	(1.2)
Philippines	7.17	14.8	14.7	9.9	16.5	3.4	4.3
Singapore	6.20	6.3	5.0	3.9	10.0	(0.9)	(2.3)
Thailand	5.05	4.9	0.3	3.2	6.3	(0.3)	2.2
Pan-Asian Index	5.60	–	6.8	–	7.6	–	(0.4)
HSBC ALBI	7.66	–	4.9	–	8.6	–	(0.3)
US Govt. 1 year–10 years	3.95	–	6.8	–	1.8	–	(0.4)

– = not applicable, ( ) = negative, 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 the iBoxx Index Family. Returns for 2013 are year-to-date as of end-January 2013.
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 end-January 2013.
Source: *AsianBondsOnline* and Bloomberg LP.

Table 8: MSCI Equity Index Returns

Market	2011 Returns (%)		2012 Returns (%)		2013 YTD Returns (%)	
	LCY terms	US$ terms	LCY terms	US$ terms	LCY terms	US$ terms
China, People's Rep. of	(20.4)	(20.3)	18.7	19.0	4.2	4.1
Hong Kong, China	(18.5)	(18.4)	24.2	24.4	5.9	5.8
Indonesia	4.7	4.0	8.8	2.4	3.3	2.2
Korea, Rep. of	(11.5)	(12.8)	11.7	20.2	(2.4)	(4.1)
Malaysia	(0.2)	(2.9)	6.8	10.8	(3.3)	(4.8)
Philippines	(3.1)	(3.2)	34.7	43.9	6.7	7.7
Singapore	(20.0)	(21.0)	19.2	26.4	2.7	1.4
Thailand	(1.2)	(5.6)	26.9	30.9	3.2	5.8
Far East ex-Japan Index	(15.6)	(16.8)	15.5	19.0	2.0	1.3
MSCI US	–	(0.1)	–	13.5	–	5.2

– = not applicable, ( ) = negative, LCY = local currency, MSCI = Morgan Stanley Capital International, US = United States, YTD = year-to-date.
Notes:
1. Market indices are from MSCI country indexes. 2013 returns are year-to-date as of end-January 2013.
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.

Asian Bond Fund Index—on a US$ unhedged total return basis—were Thailand (2.2%) and the PRC (0.4%). Returns in January for Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; and Singapore were all negative.

The region's equity markets performed somewhat better in January than its LCY bond markets. The MSCI Far East ex-Japan Index had a positive year-to-date return of 1.3% at end-January. The Philippines was again the best performing market with a return of 7.7%, followed by Hong Kong, China and Thailand, both of which had returns of 5.8%. Meanwhile, the Republic of Korea and Malaysia had negative returns of –4.1% and –4.8%, respectively.