

Bond Market Developments in the Fourth Quarter of 2016

Size and Composition

Emerging East Asia's local currency bonds outstanding reached USD10.2 trillion at the end of December.

The size of emerging East Asia's local currency (LCY) bond market climbed to USD10,177 billion at the end of December.⁸ Growth in the fourth quarter (Q4) of 2016 moderated to 2.4% quarter-on-quarter (q-o-q) from 3.3% q-o-q in the previous quarter (**Figure 1a**). Singapore and Thailand posted increased q-o-q growth rates in Q4 2016, while q-o-q growth slowed in the People's Republic of China (PRC); Hong Kong, China; Indonesia; and the Philippines. LCY bond markets in the Republic of Korea, Malaysia, and Viet Nam contracted on a q-o-q basis in Q4 2016.

Leading the region in terms of LCY bond market size was the PRC, where outstanding bonds reached USD7,129 billion at the end of December, accounting for 70.0% of emerging East Asia's LCY bond market. The PRC's bond market expanded 3.4% q-o-q in Q4 2016, compared with 4.2% q-o-q growth in the third quarter (Q3) of 2016, largely driven by increases in the stock of Treasury and other government bonds, particularly local government bonds. Policy bank bonds and corporate bonds also contributed to growth in the PRC bond market in Q4 2016.

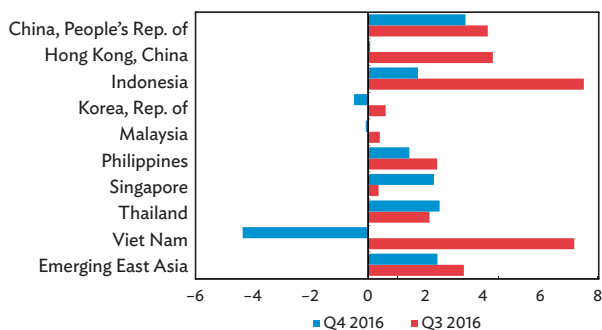
The next largest LCY bond market in the region was the Republic of Korea's, with outstanding bonds of USD1,714 billion at the end of December. The LCY bond market in the Republic of Korea contracted on a q-o-q basis in Q4 2016, with both its government and corporate bond segments posting declines due to maturities exceeding new issuance. Government bonds slipped 1.0% q-o-q in Q4 2016, largely driven by decreases in the stock of central bank bonds. The corporate bond market experienced a marginal drop of 0.2% q-o-q.

In Thailand, the LCY bond market expanded to reach a size of USD303 billion at the end of December on growth of 2.5% q-o-q, which stemmed largely from increases in the stock of central bank bonds and corporate bonds. In contrast, the stock of state-owned enterprise bonds contracted in Q4 2016, while government bonds and Treasury bills were broadly unchanged.

At the end of December, the outstanding size of Malaysia's LCY bond market stood at USD260 billion, contracting 0.1% q-o-q in Q4 2016. The decline was largely driven by corporate bonds and central bank bills, which saw lower issuance volumes during the quarter. On the other hand, central government bonds posted a marginal 0.7% q-o-q hike, buoyed by an increase in the stock of Malaysian Government Securities.

Sukuk (Islamic bonds) comprise more than half of Malaysia's LCY bond market. At the end of December, Malaysia remained the largest Islamic debt market in

Figure 1a: Growth of Local Currency Bond Markets in the Third and Fourth Quarters of 2016 (q-o-q, %)



q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter.

Notes:

1. Calculated using data from national sources.
2. Growth rates are calculated from local currency base and do not include currency effects.
3. Emerging East Asia growth figures are based on 31 December 2016 currency exchange rates and do not include currency effects.
4. For Singapore, corporate bonds outstanding data based on *AsianBondsOnline* estimates.

Sources: People's Republic of China (*ChinaBond* and *Wind Information*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; 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 and Vietnam Bond Market Association).

⁸ 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.

emerging East Asia. About 41.7% of total government bonds and 73.9% of total corporate bonds comprise *sukuk*.

Hong Kong, China's LCY bond market was broadly unchanged in Q4 2016 at a size of USD236 billion at the end of December. Government bonds declined as maturities exceeded new issuance of Exchange Fund Notes and Hong Kong Special Administrative Region bonds. The q-o-q growth in Hong Kong, China's LCY bond market was mostly led by corporate bonds as corporates locked in low borrowing costs. Increased demand for Hong Kong dollar-denominated assets as an investment option also encouraged corporates to borrow, following the depreciation of the Chinese yuan.

Singapore's LCY bond market climbed to a size of USD230 billion at the end of December, up 2.3% q-o-q in Q4 2016. Growth was driven largely by the government bond segment on the back of increased sales of Monetary Authority of Singapore (MAS) bills and Singapore Government Securities bills and bonds during the quarter. In contrast, the corporate bond segment contracted 2.0% q-o-q, with sentiments dampened by corporate defaults, particularly in the energy sector.

The LCY bond market in Indonesia rose to a size of USD163 billion at the end of December on 1.7% q-o-q growth. Growth was largely driven by increases in the stock of central government bonds and corporate bonds. Modest growth in the stock of government bonds came about as the government has mostly fulfilled its issuance plan for the year, resulting in fewer auctions of Treasury instruments in Q4 2016. Corporate bonds climbed at a much faster pace, albeit from a lower base, on more active issuance by corporates as they took advantage of lower borrowing costs. Central bank bills, known as *Sertifikat Bank Indonesia*, declined as Bank Indonesia opted to use other tools to manage liquidity.

At the end of December, the Philippines' outstanding LCY bonds reached a size of USD98 billion, rising a modest 1.4% q-o-q in Q4 2016. Growth was led by increases in the stock of Treasury bonds and corporate bonds. In contrast, the stocks of Treasury bills and other government bonds declined during the review period.

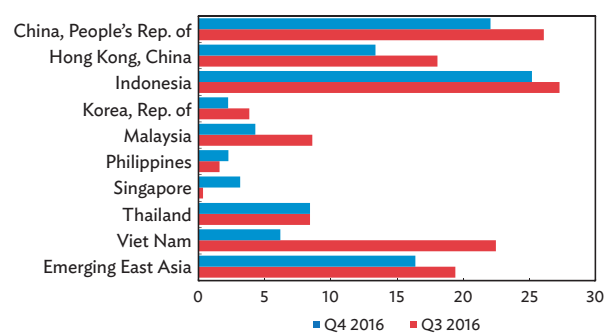
The size of the LCY bond market in Viet Nam slipped to USD44 billion at the end of December as growth contracted 4.4% q-o-q, led by a drop in government

bonds, particularly State Bank of Vietnam bills and state-owned enterprise bonds. On the other hand, corporate bonds outstanding rose on new issuance by six corporate entities in Q4 2016.

Growth in emerging East Asia's LCY bond market also moderated on a year-on-year (y-o-y) basis in Q4 2016, rising at a slower pace of 16.4% y-o-y compared with 19.4% y-o-y in the previous quarter (**Figure 1b**). While all markets posted positive y-o-y growth during the review period, six out of the nine markets experienced slower rates of expansion. The exceptions to this trend were the Philippines and Singapore which both showed faster growth, and Thailand where growth was unchanged. The fastest-growing bond markets in Q4 2016 on a y-o-y basis were Indonesia (25.1%); the PRC (22.0%); and Hong Kong, China (13.4%).

Emerging East Asia's LCY bond market continued to be dominated by government bonds, which comprised the equivalent of USD6,572 billion, or 64.6% of the regional total, at the end of December (**Table 1**). Growth moderated on both a q-o-q and y-o-y basis, easing to 3.2% q-o-q and 23.8% y-o-y from 4.8% q-o-q

Figure 1b: Growth of Local Currency Bond Markets in the Third and Fourth Quarters of 2016 (y-o-y, %)



Q3 = third quarter, Q4 = fourth quarter, y-o-y = year-on-year.

Notes:

1. Calculated using data from national sources.
2. Growth rates are calculated from local currency base and do not include currency effects.
3. Emerging East Asia growth figures are based on 31 December 2016 currency exchange rates and do not include currency effects.
4. For Singapore, corporate bonds outstanding data based on *AsianBondsOnline* estimates.

Sources: People's Republic of China (*ChinaBond* and *Wind Information*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; 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 and Vietnam Bond Market Association).

Table 1: Size and Composition of Local Currency Bond Markets

	Q4 2015		Q3 2016		Q4 2016		Growth Rate (LCY-base %)				Growth Rate (USD-base %)			
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q4 2015		Q4 2016		Q4 2015		Q4 2016	
							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														
Total	6,248	100.0	7,178	100.0	7,129	100.0	6.8	24.0	3.4	22.0	4.5	18.5	(0.7)	14.1
Government	4,067	65.1	4,969	69.2	4,974	69.8	7.6	27.6	4.2	30.8	5.3	22.0	0.1	22.3
Corporate	2,182	34.9	2,209	30.8	2,155	30.2	5.3	17.8	1.6	5.6	3.1	12.6	(2.4)	(1.2)
Hong Kong, China														
Total	208	100.0	236	100.0	236	100.0	4.2	7.3	0.1	13.4	4.2	7.3	0.1	13.3
Government	120	57.4	138	58.3	137	58.1	5.8	9.2	(0.3)	14.8	5.8	9.3	(0.3)	14.7
Corporate	89	42.6	98	41.7	99	41.9	2.0	4.8	0.5	11.5	2.0	4.8	0.5	11.4
Indonesia														
Total	127	100.0	165	100.0	163	100.0	3.4	14.4	1.7	25.1	9.9	2.8	(1.5)	28.1
Government	109	85.7	143	86.7	139	85.8	4.0	14.8	0.7	25.2	10.5	3.1	(2.6)	28.1
Corporate	18	14.3	22	13.3	23	14.2	0.1	12.1	8.7	24.7	6.4	0.8	5.2	27.6
Korea, Rep. of														
Total	1,720	100.0	1,886	100.0	1,714	100.0	1.1	8.8	(0.5)	2.3	1.9	1.0	(9.1)	(0.3)
Government	700	40.7	777	41.2	703	41.0	1.0	7.4	(1.0)	3.1	1.9	(0.2)	(9.6)	0.5
Corporate	1,020	59.3	1,109	58.8	1,011	59.0	1.1	9.7	(0.2)	1.7	2.0	1.8	(8.8)	(0.9)
Malaysia														
Total	261	100.0	282	100.0	260	100.0	4.0	1.4	(0.1)	4.3	6.5	(17.4)	(7.8)	(0.1)
Government	142	54.7	153	54.1	141	54.3	1.6	(5.5)	0.3	3.6	4.0	(23.0)	(7.5)	(0.8)
Corporate	118	45.3	130	45.9	119	45.7	7.1	11.1	(0.5)	5.2	9.6	(9.5)	(8.3)	0.7
Philippines														
Total	101	100.0	99	100.0	98	100.0	0.8	2.1	1.4	2.3	0.4	(2.7)	(0.9)	(3.3)
Government	84	82.9	82	82.4	80	81.7	0.2	1.3	0.6	0.8	(0.2)	(3.4)	(1.7)	(4.7)
Corporate	17	17.1	17	17.6	18	18.3	3.8	6.0	5.5	9.5	3.4	1.0	3.1	3.6
Singapore														
Total	228	100.0	239	100.0	230	100.0	(0.5)	0.0	2.3	3.2	(0.2)	(6.6)	(3.6)	1.2
Government	129	56.7	134	56.1	133	57.9	(2.3)	(5.7)	5.6	5.4	(2.1)	(11.8)	(0.5)	3.3
Corporate	99	43.3	105	43.9	97	42.1	2.1	8.5	(2.0)	0.3	2.3	1.4	(7.7)	(1.7)
Thailand														
Total	278	100.0	306	100.0	303	100.0	2.5	8.1	2.5	8.4	3.5	(1.2)	(1.1)	9.0
Government	208	74.9	226	73.8	222	73.1	2.5	7.8	1.5	5.9	3.5	(1.5)	(2.0)	6.5
Corporate	70	25.1	80	26.2	81	26.9	2.5	9.0	5.2	16.0	3.4	(0.4)	1.5	16.6
Viet Nam														
Total	42	100.0	47	100.0	44	100.0	10.3	5.2	(4.4)	6.2	10.2	0.03	(6.3)	4.9
Government	40	96.4	45	96.0	42	95.4	9.8	3.2	(5.0)	5.0	9.8	(1.8)	(6.9)	3.7
Corporate	1	3.6	2	4.0	2	4.6	24.4	114.3	11.1	38.2	24.3	103.9	8.8	36.5
Emerging East Asia														
Total	9,213	100.0	10,438	100.0	10,177	100.0	5.1	17.9	2.4	16.4	4.0	11.3	(2.5)	10.5
Government	5,599	60.8	6,666	63.9	6,572	64.6	5.9	20.3	3.2	23.8	4.6	13.8	(1.4)	17.4
Corporate	3,614	39.2	3,772	36.1	3,605	35.4	3.9	14.3	1.0	4.8	3.0	7.6	(4.4)	(0.3)
Japan														
Total	8,931	100.0	11,110	100.0	9,637	100.0	(1.9)	(0.1)	0.1	5.0	(2.1)	(0.4)	(13.3)	7.9
Government	8,274	92.7	10,327	93.0	8,966	93.0	(2.0)	0.2	0.2	5.4	(2.2)	(0.2)	(13.2)	8.4
Corporate	656	7.3	783	7.0	671	7.0	(0.5)	(3.1)	(1.1)	(0.5)	(0.8)	(3.5)	(14.3)	2.2
Memo Item: India														
Total	1,124	100.0	1,180	100.0	1,286	100.0	3.5	10.9	11.1	17.5	2.7	5.7	8.9	14.4
Government	835	74.3	851	72.1	951	73.9	3.9	9.3	13.9	16.9	3.1	4.2	11.7	13.9
Corporate	289	25.7	329	27.9	335	26.1	2.4	15.9	3.8	19.1	1.5	10.5	1.7	16.0

(-) = negative, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.

Notes:

1. For Singapore, corporate bonds outstanding data based on *AsianBondsOnline* estimates.

2. Corporate bonds include issues by financial institutions.

3. Bloomberg LP end-of-period LCY-USD rates are used.

4. For LCY base, emerging East Asia growth figures based on 31 December 2016 currency exchange rates and do not include currency effects.

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

Sources: People's Republic of China (*ChinaBond* and *Wind Information*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; 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 Vietnam Bond Market Association); Japan (Japan Securities Dealers Association); and India (Securities and Exchange Board of India and Bloomberg LP).

and 27.0% y-o-y in Q3 2016. The PRC led the region in terms of size, with government bonds outstanding of USD4,974 billion at the end of December. The Republic of Korea was second with outstanding bonds of USD703 billion and Thailand was next at USD222 billion. They were followed by Malaysia with government bonds valued at USD141 billion and Indonesia with USD139 billion. The government bond markets of Hong Kong, China and Singapore were the next largest, with outstanding bonds of USD137 billion and USD133 billion, respectively. The Philippines and Viet Nam have the two smallest government bond markets in emerging East Asia with government bonds outstanding of USD80 billion and USD42 billion, respectively.

LCY corporate bonds outstanding in emerging East Asia rose to USD3,605 billion at the end of December, reflecting gains of 1.0% q-o-q and 4.8% y-o-y. The region's q-o-q growth rate in Q4 2016 was up from 0.7% q-o-q in Q3 2016 despite q-o-q contractions in the corporate bond markets of the Republic of Korea, Malaysia, and Singapore. All other emerging East Asian markets experienced positive q-o-q growth rates, which helped offset the decline. Higher growth in corporate bonds in Q4 2016 was due to increased issuance ahead of potential Federal Reserve rate increases in 2017.

The corporate bond segment's share of the region's overall LCY bond market stood at 35.4% at the end of December. The PRC accounts for the lion's share of corporate bonds in emerging East Asia, comprising 59.8% of the region's total outstanding stock of corporate bonds, followed by the Republic of Korea at 28.0%.

As a share of GDP, emerging East Asia's LCY bond market was the equivalent of 68.5% at the end of December, down from 69.2% in the previous quarter (**Table 2**). The decline was due to much weaker growth in the corporate bond market. Corporate bonds as a share of GDP fell to 24.3% in Q4 2016 from 25.0% in Q3 2016, while the share of government bonds to GDP was broadly unchanged at 44.2%. The Republic of Korea was a significant driver of the decline. Despite this, it maintained its position as the market with the largest share of bonds to GDP at 117.3% in Q4 2016, although this was down from 129.1% in the previous quarter, stemming from a decline in the share of corporate bond to GDP from 75.9% in Q3 2016 to 69.2% in Q4 2016. Malaysia's LCY bond market as a share of GDP was the second largest in the region at 94.9%.

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

	Q4 2015	Q3 2016	Q4 2016
China, People's Rep. of			
Total	58.9	66.0	66.5
Government	38.3	45.7	46.4
Corporate	20.6	20.3	20.1
Hong Kong, China			
Total	67.4	74.5	73.6
Government	38.7	43.4	42.8
Corporate	28.7	31.1	30.8
Indonesia			
Total	15.2	17.7	17.7
Government	13.0	15.4	15.1
Corporate	2.2	2.4	2.5
Korea, Rep. of			
Total	129.6	129.1	117.3
Government	52.7	53.2	48.1
Corporate	76.9	75.9	69.2
Malaysia			
Total	96.7	96.9	94.9
Government	52.9	52.4	51.5
Corporate	43.8	44.5	43.4
Philippines			
Total	35.8	34.0	33.7
Government	29.7	28.0	27.5
Corporate	6.1	6.0	6.2
Singapore			
Total	79.2	80.0	81.3
Government	44.9	44.8	47.1
Corporate	34.3	35.1	34.2
Thailand			
Total	73.2	74.7	75.6
Government	54.8	55.1	55.3
Corporate	18.4	19.6	20.3
Viet Nam			
Total	22.4	23.8	22.1
Government	21.6	22.8	21.1
Corporate	0.8	0.9	1.0
Emerging East Asia			
Total	63.6	69.2	68.5
Government	38.6	44.2	44.2
Corporate	24.9	25.0	24.3
Japan			
Total	202.4	210.4	209.8
Government	187.5	195.6	195.2
Corporate	14.9	14.8	14.6

GDP = gross domestic product, Q3 = third quarter, Q4 = fourth quarter.

Notes:

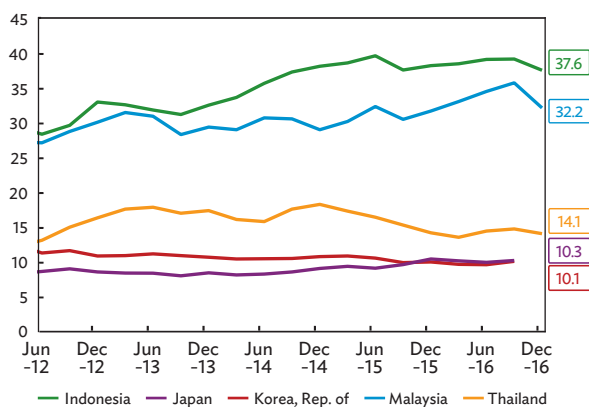
1. Data for GDP is from CEIC. Q4 2016 GDP figure carried over from Q3 2016 for the Republic of Korea.
2. For Singapore, corporate bonds outstanding data based on *AsianBondsOnline* estimates.

Sources: People's Republic of China (*ChinaBond* and *Wind Information*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; 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 Vietnam Bond Market Association); and Japan (Japan Securities Dealers Association).

Foreign holding shares in emerging East Asian government bond markets fell amid volatile market conditions in Q4 2016.

The share of foreign holdings in most emerging East Asian markets declined in Q4 2016 due to a stronger US dollar and expectations of accelerated US interest rate hikes in 2017. At the end of December, nonresident holdings of LCY government bonds had declined on a q-o-q basis for most markets for which data are available (**Figure 2**). Recent data in January indicated a partial reversal, reflecting improving sentiments for emerging market assets.

Figure 2: Foreign Holdings of Local Currency Government Bonds in Select Asian Economies (% of total)



Note: Data as of end-December 2016 except for Japan and the Republic of Korea (end-September 2016).
Source: AsianBondsOnline.

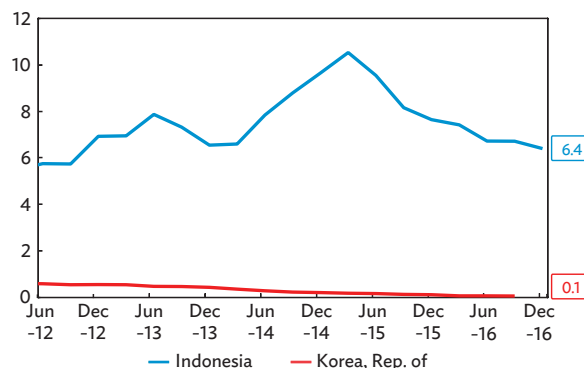
At the end of December, the largest decline was noted in Malaysia, where foreign investors' holdings fell by more than 3 percentage points to 32.2%. In the same period, the share of foreign holdings in Indonesia slipped by 1.6 percentage points to 37.6%. In both Indonesia and Malaysia, a large share of government bonds is held by foreign investors, making these markets susceptible to capital flight during market sell-offs. This was evident in Q4 2016, when volatile financial market conditions persisted and the foreign holdings share in these two markets declined more rapidly than in regional markets with lower foreign holding shares.

At the same time, the Indonesian and Malaysian markets were not severely affected by these outflows as demand from domestic investors remained strong. Furthermore, market players have already priced in more aggressive rate hikes by the Federal Reserve in 2017 and the sell-offs tend to be short-lived. In January, for example, foreign investors shored up their holdings of Indonesian government bonds with their share rising to 37.8% of the total.

Thailand's foreign holdings share slipped to 14.1% at the end of December from 14.8% at the end of September. In the Republic of Korea, the foreign holdings share inched up to 10.1% at the end of September from a share of 9.7% at the end of June.

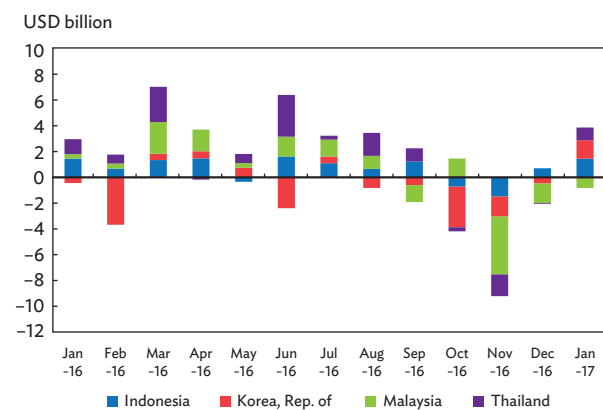
For LCY corporate bonds, the negligible share of offshore investors is in stark contrast to foreign holdings of government bonds. In Indonesia, nonresident holdings accounted for only 6.4% of the total at the end of December, down slightly from 6.7% at the end of September (**Figure 3**). Since reaching a peak of 10.5% at the end of March 2015, the foreign holdings share of the corporate bond market in Indonesia has steadily declined. The share of nonresident investor holdings in the Republic of Korea's LCY corporate bond market was a negligible 0.1% at the end of September.

Figure 3: Foreign Holdings of Local Currency Corporate Bonds in Indonesia and the Republic of Korea (% of total)



Notes:
1. For Indonesia, data as of end-December 2016.
2. For the Republic of Korea, data as of end-September 2016.
Sources: Based on data from Otoritas Jasa Keuangan and the Bank of Korea.

Figure 4: Foreign Bond Flows in Select Emerging East Asian Economies



Notes:

1. The Republic of Korea and Thailand provide data on bond flows.
2. For Indonesia and Malaysia, month-on-month changes in foreign holdings of local currency government bonds were used as a proxy for bond flows.
3. Data provided as of end-January 2017.
4. Figures were computed based on 31 January 2017 exchange rates to avoid currency effects.

Sources: Directorate General of Budget Financing and Risk Management, Ministry of Finance; Financial Supervisory Service; Bank Negara Malaysia; and Thai Bond Market Association.

Foreign capital outflows from emerging East Asian bond markets were observed in Q4 2016.

As global financial markets were mostly volatile in Q4 2016, foreign investors became risk averse, which resulted in capital outflows in all four markets for which data on capital flows are available (**Figure 4**). Negative investor sentiments dragged down the region's bond markets on account of the uncertain direction of US economic policies and expectations of more frequent interest rate hikes by the Federal Reserve.

The largest bond outflows were noted in the Republic of Korea, where offshore investors reduced their bond holdings by USD5.1 billion in Q4 2016 following outflows of USD0.9 billion in Q3 2016. Data from the Financial Supervisory Service indicated that the outflows from the Republic of Korea's bond market were due largely to redemptions of maturing debt securities, particularly Korean Treasury Bonds and Monetary Stabilization Bonds (MSBs).

In Malaysia, capital outflows from the bond market totaled USD4.5 billion in Q4 2016, a reversal from inflows of USD1.0 billion in Q3 2016. Thailand posted net

outflows of USD2.1 billion and Indonesia recorded bond outflows of USD1.4 billion.

For full-year 2016, the Republic of Korea's bond market was the only one in the region to post net foreign capital outflows at USD10.6 billion. Thailand had the largest foreign capital inflows in 2016, which amounted to USD9.4 billion. Indonesia and Malaysia also posted foreign capital inflows in 2016 at USD8.0 billion and USD3.3 billion, respectively.

More recent data suggest improved sentiments in the region's bond markets, with most experiencing a net inflow of foreign capital in January. Indonesia had the largest inflows in the region, with foreign investors adding USD1.5 billion to their holdings of IDR-denominated bonds. Rebounding strongly in January was the Republic of Korea, which after 5 months of posting capital outflows recorded net inflows of USD1.4 billion in January, due partly to a lower volume of bond redemptions. Thailand lodged net inflows of USD1.0 billion in its bond market in the first month of the year. The only exception to this trend among markets for which data are available was Malaysia, which continued to post capital outflows in January, albeit a much smaller USD0.8 billion. Malaysia posted outflows due to maturing bonds exceeding new issuances, leading to a smaller supply of available bonds to reinvest in.

Local currency bond issuance in emerging East Asia was down in the fourth quarter of 2016, driven by the decline in issuance of government bonds in most markets.

Issuance of LCY bonds in emerging East Asia was down 14.8% q-o-q to USD946 billion in Q4 2016 (**Table 3**). The decline was driven by a 23.0% q-o-q contraction in the issuance of government bonds to USD608 billion, while corporate bond issuance rose 5.3% q-o-q to USD338 billion. Issuance in the region fell 8.4% y-o-y on lower volumes of new issues in both the government and corporate bond markets.

Issuance of central government bonds—Treasury bills, Treasury bonds, and other government securities—amounted to USD368 billion in Q4 2016, comprising 38.9% of total LCY bond issuance in the region. This was down 31.9% from the volume issued in Q3 2016. Almost all markets in the region exhibited the same trend. The only exceptions were in Hong Kong, China and Singapore,

Table 3: Local-Currency-Denominated Bond Issuance (gross)

	Q4 2015		Q3 2016		Q4 2016		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q4 2016		Q4 2016	
							q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of										
Total	665	100.0	717	100.0	532	100.0	(22.7)	(14.4)	(25.7)	(20.0)
Government	381	57.3	491	68.5	314	59.0	(33.4)	(11.8)	(36.0)	(17.5)
Central Bank	0	0.0	0	0.0	0	0.0	-	-	-	-
Treasury and Other Govt.	381	57.3	491	68.5	314	59.0	(33.4)	(11.8)	(36.0)	(17.5)
Corporate	284	42.7	226	31.5	218	41.0	0.6	(18.0)	(3.3)	(23.3)
Hong Kong, China										
Total	90	100.0	99	100.0	104	100.0	4.3	15.6	4.3	15.5
Government	80	88.5	91	91.3	93	89.4	2.1	16.7	2.1	16.6
Central Bank	79	87.5	90	90.7	92	88.6	1.8	17.0	1.8	16.9
Treasury and Other Govt.	0.9	1.0	0.6	0.6	0.8	0.8	35.4	(9.7)	35.4	(9.8)
Corporate	10	11.5	9	8.7	11	10.6	27.5	7.3	27.5	7.2
Indonesia										
Total	8	100.0	15	100.0	9	100.0	(35.8)	12.9	(37.9)	15.6
Government	7	90.3	13	85.8	6	68.6	(48.8)	(14.3)	(50.4)	(12.3)
Central Bank	1	14.1	4	24.2	1	15.1	(60.0)	20.6	(61.3)	23.4
Treasury and Other Govt.	6	76.2	9	61.6	5	53.5	(44.3)	(20.8)	(46.1)	(18.9)
Corporate	0.8	9.7	2	14.2	3	31.4	42.4	267.5	37.8	276.1
Korea, Rep. of										
Total	160	100.0	144	100.0	139	100.0	5.5	(11.3)	(3.6)	(13.5)
Government	72	44.6	70	48.5	56	40.6	(11.8)	(19.4)	(19.4)	(21.4)
Central Bank	37	22.9	35	24.2	27	19.1	(16.5)	(26.0)	(23.8)	(27.9)
Treasury and Other Govt.	35	21.7	35	24.4	30	21.5	(7.1)	(12.4)	(15.1)	(14.6)
Corporate	89	55.4	74	51.5	82	59.4	21.9	(4.7)	11.3	(7.2)
Malaysia										
Total	22	100.0	16	100.0	11	100.0	(25.0)	(46.9)	(30.8)	(49.2)
Government	9	39.6	6	39.9	4	39.2	(26.4)	(47.5)	(32.1)	(49.8)
Central Bank	3	11.6	1	6.0	0.7	6.0	(25.0)	(72.5)	(30.8)	(73.7)
Treasury and Other Govt.	6	28.0	5	33.9	4	33.1	(26.7)	(37.2)	(32.4)	(39.8)
Corporate	13	60.4	10	60.1	7	60.8	(24.0)	(46.5)	(29.9)	(48.8)
Philippines										
Total	4	100.0	8	100.0	4	100.0	(44.6)	22.8	(45.8)	16.2
Government	3	82.6	7	87.9	3	64.9	(59.0)	(3.5)	(60.0)	(8.7)
Central Bank	0	0.0	0	0.0	0	0.0	-	-	-	-
Treasury and Other Govt.	3	82.6	7	87.9	3	64.9	(59.0)	(3.5)	(60.0)	(8.7)
Corporate	0.6	17.4	0.9	12.1	1	35.1	60.3	148.0	56.7	134.5
Singapore										
Total	59	100.0	65	100.0	62	100.0	1.4	7.4	(4.4)	5.3
Government	56	95.5	62	95.4	61	98.4	4.6	10.6	(1.4)	8.4
Central Bank	52	87.4	58	89.2	56	90.2	2.7	10.9	(3.3)	8.7
Treasury and Other Govt.	5	8.1	4	6.2	5	8.1	32.7	7.4	25.0	5.3
Corporate	3	4.5	3	4.6	1	1.6	(63.9)	(61.0)	(66.0)	(61.7)
Thailand										
Total	60	100.0	78	100.0	70	100.0	(6.3)	16.8	(9.5)	17.5
Government	50	83.0	64	82.5	56	80.1	(9.1)	12.6	(12.2)	13.3
Central Bank	35	59.3	55	70.6	51	72.2	(4.2)	42.3	(7.5)	43.1
Treasury and Other Govt.	14	23.8	9	11.9	6	7.9	(37.9)	(61.2)	(40.1)	(61.0)
Corporate	10	17.0	14	17.5	14	19.9	7.0	37.3	3.3	38.1

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Table 3 continued

	Q4 2015		Q3 2016		Q4 2016		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q4 2016		Q4 2016	
							q-o-q	y-o-y	q-o-q	y-o-y
Viet Nam										
Total	14	100.0	18	100.0	14	100.0	(22.1)	2.5	(23.7)	1.3
Government	14	98.6	18	99.3	14	98.6	(22.7)	2.5	(24.3)	1.3
Central Bank	7	52.7	15	83.3	13	90.1	(15.7)	75.3	(17.4)	73.2
Treasury and Other Govt.	6	45.9	3	16.0	1	8.4	(59.0)	(81.1)	(59.8)	(81.4)
Corporate	0.2	1.4	0.1	0.7	0.2	1.4	69.7	3.4	66.2	2.2
Emerging East Asia										
Total	1,082	100.0	1,160	100.0	946	100.0	(14.8)	(8.4)	(18.5)	(12.6)
Government	671	62.0	822	70.9	608	64.3	(23.0)	(5.4)	(26.0)	(9.4)
Central Bank	213	19.7	258	22.2	240	25.4	(3.6)	13.5	(6.9)	12.4
Treasury and Other Govt.	457	42.3	564	48.7	368	38.9	(31.9)	(14.7)	(34.8)	(19.6)
Corporate	411	38.0	338	29.1	338	35.7	5.3	(13.3)	0.1	(17.8)
Japan										
Total	434	100.0	509	100.0	413	100.0	(6.2)	(7.3)	(18.7)	(4.7)
Government	410	94.7	454	89.3	389	94.1	(1.1)	(7.8)	(14.3)	(5.2)
Central Bank	0	0.0	0	0.0	0	0.0	-	-	-	-
Treasury and Other Govt.	410	94.7	454	89.3	389	94.1	(1.1)	(7.8)	(14.3)	(5.2)
Corporate	23	5.3	55	10.7	24	5.9	(48.7)	1.6	(55.6)	4.4

(-) = negative, - = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.

Notes:

1. Corporate bonds include issues by financial institutions.

2. Bloomberg LP end-of-period LCY-USD rates are used.

3. For LCY-base, emerging East Asia growth figures are based on 31 December 2016 currency exchange rates and do not include currency effects.

Sources: People's Republic of China (*ChinaBond*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; and Indonesia Stock Exchange); Republic of Korea (*EDAILY Bondweb* and the Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bloomberg LP and Bureau of the Treasury); Singapore (Singapore Government Securities and Bloomberg LP); Thailand (Bank of Thailand and Thailand Bond Market Association); Viet Nam (Bloomberg LP and Vietnam Bond Market Association); and Japan (Japan Securities Dealers Association).

which issue central government bonds to provide yield curve guidance for the pricing of private debt securities, unlike other governments in the region that issue bonds to fund budget deficits. The q-o-q increases in issuances in Hong Kong, China and Singapore were part of their programmed issuance plans for the year.

The main driver of the q-o-q contraction in central government bonds was the 33.4% q-o-q decline in issuance by the PRC. The PRC accounts for 85.4% of the region's total issuance of central government paper. The slowdown was most evident in the issuance of local government bonds, which fell to CNY959 billion in Q4 2016 from CNY1,508 billion in Q3 2016. This was partly due to the implementation of a quota by the Ministry of Finance in bond swaps of local government bank loans into bonds, which is part of efforts to restructure local government debt. The auctions of Treasury bonds, particularly during the latter part of the year, was met with low demand mostly due to tight domestic liquidity conditions and the expected

Federal Reserve rate hikes. Issuance of policy bank bonds also fell in Q4 2016.

Issuance of central bank bonds, which account for 25.4% of the region's issuance total, also declined in Q4 2016, albeit at a slower pace of 3.6% q-o-q, to USD240 billion. Most central banks in the region issued fewer bonds in Q4 2016 as liquidity conditions were tight. The largest drop in volume was in the issuance of MSBs by the Bank of Korea, which reduced its planned auctions to help stabilize the market after the US elections. The decline in volume was capped by the relatively stable issuance of the two largest issuers of central bank bonds in emerging East Asia, the Hong Kong Monetary Authority and MAS, which together account for 61.7% of the region's total.

In contrast, corporate bond issuance in emerging East Asia rose 5.3% q-o-q to reach USD338 billion in Q4 2016, driven by the 21.9% q-o-q surge in new corporate bond issues in the Republic of Korea, the

second largest corporate bond issuer in the region. Its corporate bond market accounted for nearly one fourth of the region's corporate issuance total. Most markets in the region posted double-digit q-o-q growth in Q4 2016.

The PRC corporate bond market, which accounted for nearly two thirds of new corporate bond issuance in the region, posted marginal growth of 0.6% q-o-q. Malaysia and Singapore posted q-o-q contractions of 24.0% and 63.9%, respectively, in Q4 2016. The tepid issuance in Singapore was partly due to bond defaults in the second half of the year leading to risk aversion in the corporate bond sector.

Most markets in the region issued lower volumes of LCY bonds in Q4 2016 compared with the previous quarter. The exceptions were Hong Kong, China; the Republic of Korea; and Singapore.

The PRC remained the largest issuer of LCY bonds in Q4 2016 with total issuance of USD532 billion, comprising 56.3% of the regional total. Issuance for the quarter fell 22.7% q-o-q and 14.4% y-o-y. The q-o-q contraction was mainly due to lower issuance volumes for government bonds while new corporate bond issues were almost unchanged from the previous quarter. The tepid issuance of corporate bonds in Q4 2016 was a result of some companies canceling or postponing planned bond sales due to market volatility and liquidity concerns. The y-o-y decline was driven by falling issuance of both government and corporate bonds.

The Republic of Korea was the second largest issuer in Q4 2016 with total issuances up 5.5% q-o-q to USD139 billion. The rise in corporate bond issuance was capped by a decline in issuance of government securities. The government and the Bank of Korea decreased issuance of Korea Treasury Bonds and MSBs, respectively, to help stabilize market volatility after the US elections in November. On a y-o-y basis, total issuance fell 11.3%, with declines in both the government and corporate bond sectors.

In Hong Kong, China, total LCY bond issuance rose 4.3% q-o-q to USD104 billion. The Hong Kong Monetary Authority issued more Exchange Fund Bills in Q4 2016 in response to increased demand from banks amid rising liquidity in the market. Corporate bond issuance was also up in Q4 2016 as companies took advantage of relatively

lower interest rates. Compared to a year earlier, growth in LCY bond issuance in Hong Kong, China accelerated to 15.6% y-o-y.

Singapore's LCY bond issuance of USD62 billion in Q4 2016 was almost at par with that of Q3 2016, inching up 1.4% q-o-q, as the rise in issuance of government bonds was capped by lower issuance of corporate bonds. On a y-o-y basis, issuance in Singapore rose 7.4%, led by MAS bills, which are used to mop up excess liquidity and manage currency volatility.

Bond issuance in Thailand amounted to USD70 billion, down 6.3% q-o-q on fewer planned auctions of central government paper and Bank of Thailand bonds. In addition, a number of the auctions were only partially awarded and met with weak demand as Q4 2016 saw the lowest average bid coverage ratios for auctions of government and central bank bonds. Meanwhile, issuance of corporate bonds rose 7.0% q-o-q. On a y-o-y basis, Thailand's bond issuance rose 16.8%, as both the government and corporate bond segments posted growth.

In Viet Nam, LCY bond issuance dropped 22.1% q-o-q to USD14 billion due to reduced issuance by the central government and the State Bank of Vietnam. The corporate bond sector recorded a surge in issuance in Q4 2016 that was driven by two firms. Compared to the same period a year earlier, issuance in Viet Nam inched up 2.5%.

Malaysia's LCY bond issuance in Q4 2016 was down 25.0% q-o-q to USD11 billion as both government and corporate bond issuance fell. Issuance of central government bonds dropped partly due to a smaller budget deficit target as part of Malaysia's fiscal consolidation efforts. Total issuance in Malaysia's LCY bond market fell 46.9% y-o-y on declines in both sectors.

In Indonesia, total LCY bond issuance fell 35.8% q-o-q to USD9 billion, largely driven by fewer scheduled auctions of central government bonds in Q4 2016 as the government had mostly met its program goals for the year through a frontloading policy in which it issues more bonds during the first half of the year. Issuance of central bank bonds also declined in Q4 2016 as Bank Indonesia continued to use other monetary policy tools to manage liquidity. Meanwhile, new corporate bond issues surged 42.4% q-o-q in Q4 2016 as corporates took advantage of lower borrowing costs. On a y-o-y basis, Indonesia's bond

issuance rose 12.9%, driven by a jump in new corporate bond issues.

Total LCY bond issuance dropped the most in the Philippines, declining 44.6% q-o-q to USD4 billion. This was partly the result of a high base in Q3 2016 when the Government of the Philippines issued PHP100 billion worth of retail Treasury bonds. The Bureau of the Treasury also rejected or only partially awarded most of its scheduled auctions of Treasury bills and bonds in Q4 2016 as market participants sought higher yields given uncertainty in the market. Bonds issued by Philippine corporates rose 60.3% q-o-q in Q4 2016 as they opted to increase borrowing in anticipation of higher interest rates. Total issuance rose 22.8% y-o-y, driven mainly by growth in the corporate bond sector.

Total cross-border bond issuance in emerging East Asia amounted to USD2.2 billion, reflecting contractions of 37.5% q-o-q and 12.5% y-o-y in Q4 2016.

Three PRC-based financial firms sold HKD864 million (USD111 million) worth of bonds denominated in Hong Kong dollars in Q4 2016, while five institutions from Hong Kong, China issued a combined CNY7.5 billion of yuan-denominated bonds with tenors of between 3 months and 5 years.

Issuers from the Republic of Korea sold Hong Kong dollar debt securities worth HKD1.6 billion and yuan-denominated bonds amounting to CNY1 billion. State-owned Korea Development Bank was the largest cross-border issuer, with issuance in both Hong Kong dollars and Chinese yuan.

The Lao People's Democratic Republic (Lao PDR) issued a multi-tranche sovereign bond amounting to THB11 billion. The longest tenor was 12 years with a coupon rate of 5.15%. It was the fifth issuance in Thai baht by the Government of the Lao PDR since it first began such issuances in May 2013.

Malaysia's KNM Group, a metal processing and fabrication company, raised THB2.78 billion worth of 5-year bonds at a 3.0% coupon, while Maybank issued HKD378 million worth of 5-year bonds with a 2.05% coupon.

In Singapore, new cross-border bonds were mainly issued by two financial institutions in Q4 2016. Standard Chartered Bank sold a multi-tranche bond comprising yuan-denominated (CNY554 million) and rupiah-denominated (IDR386 billion) tranches. Nomura International Funding held a dual-tranche sale of KRW120 billion worth of bonds with a 15-year maturity.

Total G3 currency bond issuance in emerging East Asia climbed to USD216 billion in 2016.

G3 currency bond issuance in emerging East Asia in Q4 2016 amounted to USD62.6 billion, up 14.7% q-o-q and 25.0% y-o-y.⁹ Bond sales denominated in G3 currencies in 2016 reached USD216 billion, topping the USD183 billion recorded in 2015 (**Table 4**).

US dollar-denominated bonds continued to account for the largest share in emerging East Asia's G3 currency bond market, comprising 90.1% of the total issuance in 2016. Bond sales increased 17.3% y-o-y to USD194.3 billion from USD165.6 billion in 2015. The issuance of euro-denominated bonds, which comprised 8.6% of total G3 issuance, rose 30% y-o-y to USD18.4 billion. Japanese yen bond issuance, which made up 1.3% of the total, increased 1.9% y-o-y to USD2.9 billion.

The larger G3 currency bond sales in 2016, particularly in Q4 2016, were mainly due to issuers taking advantage of low funding costs ahead of the Federal Reserve talking a more aggressive monetary policy stance in 2017. The PRC had the highest G3 currency bond sales in 2016 and in Viet Nam there was no G3 issuance during the year. All other markets in the region registered increased G3 currency bond issuance in 2016 compared to a year earlier, except for Malaysia and the Philippines.

Despite the slowdown in the PRC's economy in 2016, it continued to fuel the growth of the region's G3 currency bond market. The PRC issued a total of USD120 billion in 2016, an increase of 15.9% over the amount issued in 2015. The PRC accounted for more than half of the total G3 currency bond issuance in the region in 2016 and about 92% of this issuance was denominated in US dollars. Firms in the PRC took advantage of low funding costs for US dollar debt to pay off maturing

⁹ G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.

Table 4: G3 Currency Bond Issuance

2015			2016		
Issuer	Amount (USD million)	Issue Date	Issuer	Amount (USD million)	Issue Date
China, People's Rep. of	103,527		China, People's Rep. of	120,019	
China Construction Bank 4.65% Perpetual	3,050	16-Dec-15	China Cinda Asset Management 4.45% Perpetual	3,200	30-Sep-16
Sinopec 2.5% 2020	2,500	28-Apr-15	Proven Honour Capital 4.125% 2026	2,000	6-May-16
Bank of Communications 5% Perpetual	2,450	29-Jul-15	China Minsheng Banking 4.95% Perpetual	1,439	14-Dec-16
China Construction Bank 3.875% 2025	2,000	13-May-15	Huarong Finance 3.625% 2021	1,350	22-Nov-16
CNOOC Finance 3.5% 2025	2,000	5-May-15	Sinopec 2% 2021	1,300	29-Sep-16
ICBC 4.875% 2025	2,000	21-Sep-15	Export-Import Bank of China 2% 2021	1,250	26-Apr-16
China Cinda Finance (2015) 4.25% 2025	1,700	23-Apr-15	Export-Import Bank of China 0.25% 2019	1,209	2-Dec-16
Evergrande Real Estate Group 9% Perpetual	1,500	29-Dec-15	Sinopec 1.75% 2019	1,100	29-Sep-16
Others	86,327		Others	107,171	
Hong Kong, China	18,702		Hong Kong, China	29,204	
Shimao Property 8.375% 2022	1,100	10-Feb-15	China Overseas Finance 0% 2023	1,500	5-Jan-16
Hong Kong, China (Sovereign) Sukuk 1.894% 2020	1,000	3-Jun-15	CK Hutchison 1.25% 2023	1,420	8-Apr-16
Others	16,602		Others	26,284	
Indonesia	15,572		Indonesia	17,888	
Indonesia (Sovereign) 4.75% 2026	2,250	8-Dec-15	Perusahaan Penerbit SBSN Sukuk 4.55% 2026	1,750	29-Mar-16
Indonesia (Sovereign) 4.125% 2025	2,000	15-Jan-15	Indonesia (Sovereign) 2.625% 2023	1,578	14-Jun-16
Indonesia (Sovereign) 5.125% 2045	2,000	15-Jan-15	Indonesia (Sovereign) 3.75% 2028	1,578	14-Jun-16
Perusahaan Penerbit SBSN Sukuk 4.325% 2025	2,000	28-May-15	Indonesia (Sovereign) 5.25% 2047	1,500	8-Dec-16
Indonesia (Sovereign) 3.375% 2025	1,397	30-Jul-15	Indonesia (Sovereign) 4.35 2027	1,250	8-Dec-16
Others	5,925		Others	10,233	
Korea, Rep. of	23,348		Korea, Rep. of	28,593	
Korea Eximbank 2.875% 2025	1,250	21-Jan-15	Korea Development Bank 3% 2026	1,000	13-Jan-16
Korea Eximbank 2.25% 2020	1,000	21-Jan-15	Korea Eximbank 1.75% 2019	1,000	26-May-16
Korea Eximbank 3.25% 2025	1,000	10-Nov-15	Korea Eximbank 2.625% 2026	1,000	26-May-16
Others	20,098		Others	25,593	
Lao People's Dem. Rep.	182		Lao People's Dem. Rep.	312	
Malaysia	8,496		Malaysia	6,026	
Petronas Capital 3.5% 2025	1,500	18-Mar-15	Malaysia (Sovereign) Sukuk 3.179% 2026	1,000	27-Apr-16
Petronas Capital 4.5% 2045	1,500	18-Mar-15	Danga Capital 3.035% 2021	750	1-Mar-16
Petronas Global Sukuk 2.707% 2020	1,250	18-Mar-15	TNB Global Ventures Capital 3.244% 2026	750	19-Oct-16
Others	4,246		Others	3,526	
Philippines	4,256		Philippines	2,675	
Philippines (Sovereign) 3.95% 2040	2,000	20-Jan-15	Philippines (Sovereign) 3.7% 2041	2,000	1-Mar-16
Royal Capital BV 5.5% Perpetual	450	26-Aug-15	Others	675	
Others	1,806		Singapore	9,636	
Singapore	8,346		BOC Aviation 3.875% 2026	750	27-Apr-16
Global Logistics Properties 3.875% 2025	1,000	4-Jun-15	DBS Group 3.6% Perpetual	750	7-Sep-16
DBS Bank 1.625% 2018	1,000	6-Aug-15	Others	8,136	
BOC Aviation 3% 2020	750	30-Mar-15	Thailand	1,225	
Others	5,596		Kasikorn Bank PLC 2.375% 2022	400	6-Oct-16
Thailand	176		Others	825	
Emerging East Asia Total	182,605		Emerging East Asia Total	215,579	
Memo Items:			Memo Items:		
India	10,919		India	8,354	
Bharti Airtel 4.375% 2025	1,000	10-Jun-15	Export-Import Bank of India 3.375% 2026	1,000	5-Aug-16
Others	9,919		Others	7,354	
Sri Lanka	3,649		Sri Lanka	2,916	

USD = United States dollar.

Notes:

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

2. Data exclude certificates of deposit.

3. G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.

Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

debt or refinance existing debt. There was also an implicit tightening in the PRC's domestic credit, thus prompting companies to tap the US dollar bond market. China Development Bank was the PRC's largest issuer of G3 currency bonds in 2016, raising more than USD6.3 billion from the combined sale of euro- and US dollar-denominated bonds.

Hong Kong, China overtook the Republic of Korea as the second largest G3 currency bond issuer in emerging East Asia in 2016 with total issuance of USD29.2 billion, up 56.2% from the preceding year. Most G3 currency bond issuance in Hong Kong, China came from the financial sector. The full-year 2016 amount was shored up by issuances during Q4 2016, which saw the highest quarterly bond sales of the year at USD11.7 billion, a 66.3% q-o-q increase from Q3 2016. China Great Wall International Holdings was the largest bond issuer in Q4 2016 with a total of USD1.5 billion comprising a USD800 million 5-year bond with a 2.625% coupon and a USD700 million 3-year bond with a 2.25% coupon.

The Republic of Korea's G3 currency bond issuance increased 22.5% y-o-y to USD28.6 billion in 2016. In Q4 2016, the Republic of Korea's G3 bond issuance reached USD7.7 billion with the government-owned Korea Export-Import Bank selling a total of USD3.1 billion.

Markets in the Association of Southeast Asian Nations (ASEAN) saw total sales of G3 currency bonds increase slightly in 2016 to USD37.8 billion from USD37.0 billion in 2015. Indonesia continued to lead all ASEAN economies, accounting for almost half of its aggregate G3 bond issuance. Indonesia's new G3 issuances in 2016 increased 14.9% y-o-y to USD17.9 billion while a total of USD5.6 billion was issued in Q4 2016. Among this quarterly total, Indonesia issued a triple-tranche sovereign bond—consisting of USD1.5 billion of 30-year bonds, USD1.25 billion of 10-year bonds, and USD750 million of 5-year bonds—to prefund its 2017 state budget.

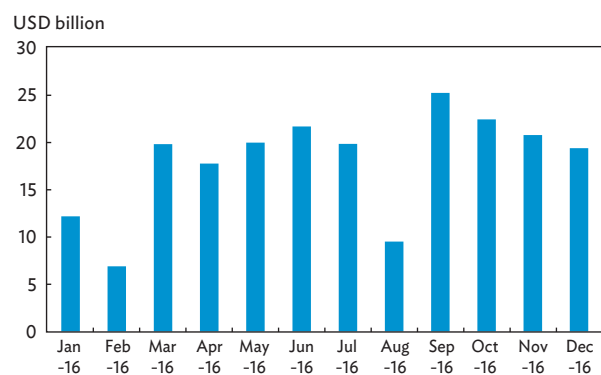
Singapore issued USD9.6 billion of G3 currency bonds in 2016 on growth of 15.5% y-o-y. In Q4 2016, the economy's G3 bond issuance dropped 66.3% q-o-q, which was reflective of a traditionally slow period. A large part of the Q4 2016 issuance came from SingTel Group Treasury, which sold USD500 million worth of bonds. In Thailand, USD1.2 billion worth of G3 currency bonds were sold in 2016 and USD550 million in Q4 2016.

The Lao PDR had no G3 bond sales in Q4 2016; all of its issuance during the year took place in Q3 2016.

The Philippines' G3 currency bond sales declined 37.1% y-o-y to USD2.7 billion in 2016, with the remaining sales during the year coming in Q4 2016 following the USD2.0 billion sovereign bond issuance in the first quarter. Sales in Q4 2016 came from corporate entities issuing a total of USD675 million. In Malaysia, G3 currency bond issuance was down to USD6.0 billion on a 29.0% y-o-y drop. The decline was contributed to by the low issuance volume in Q3 2016, but the recent recovery in oil prices and the stabilization of the Malaysian ringgit is helping to dispel negative investor sentiment.

On a monthly basis, the lowest volumes of G3 currency bond issuance in emerging East Asian economies were registered in February and August at USD6.9 billion and USD9.5 billion, respectively (**Figure 5**). The decline in August was followed by a sharp rise in issuance in September to USD25.2 billion. Succeeding months saw a gradual fall in G3 currency bond issuance, although the monthly amounts remained above the 2016 monthly average bond sales of USD17.9 billion. This trend may have been the result of issuers taking advantage of low borrowing costs ahead of the accelerated pace of rate hikes by the Federal Reserve in 2017.

Figure 5: G3 Currency Bond Issuance in Emerging East Asia



USD = United States dollar.

Notes:

1. Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; the Lao People's Democratic Republic; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
2. G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.
3. Figures were computed based on 31 December 2016 currency exchange rates and do not include currency effects.

Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

Government bond yield curves in most emerging East Asian markets fell for most tenors on improving investor sentiment.

Markets in emerging East Asia are experiencing renewed optimism as there are signs that global economic growth is gaining momentum, leading to increased risk appetite in a number of emerging East Asian economies.

In the US, due to the trend of economic growth in the latter half of 2016 and in the early months of 2017, the Federal Reserve has hinted that it would accelerate the pace of its rate hikes in 2017. Job gains averaged 190,000 in the second half of 2016 and rose to 235,000 in February. In addition, the unemployment rate stood at 4.7% in February, which was within range of estimates of the US economy's natural rate of unemployment. US GDP growth, however, was weaker, with annualized growth in Q4 2016 at 1.9% y-o-y, down from 3.5% y-o-y in Q3 2016.

Inflation in the US has shown signs of firming. In full-year 2016, consumer price inflation was 1.6%, but it rose to 2.5% y-o-y in January and 2.7 y-o-y in February.

In February, Federal Reserve Chair Janet Yellen indicated that if these trends continue, an adjustment in the policy rate would be most likely, suggesting that the Federal Reserve will be accelerating the pace of its rate hike this year. Other statements from members of the Federal Reserve suggest the same. Cleveland Federal Reserve President Loretta Mester announced the following week that she would be comfortable with a rate hike if unemployment and inflation continue along their current trends. Federal Reserve Governor Jerome Powell noted that the US economy is currently near the Federal Reserve's employment targets and is on track to meet the inflation target.

In other advanced economies, downside risks have also diminished though some remain. In the eurozone, GDP growth for Q4 2016 was stable at 0.4% q-o-q, the same rate as in the prior quarter. Inflation rose to 2.0% y-o-y in February on rising energy prices as the underlying trend remained unchanged. Mario Draghi, President of the European Central Bank, said that monetary stimulus

would still be needed to support the central bank's targets.

In Japan, the central bank raised its economic growth forecasts. For fiscal year 2016, the growth forecast was raised to 1.4% from 1.0%, while for fiscal year 2017 it was raised to 1.5% from 1.3%. For fiscal year 2018, the growth forecast was raised to 1.1% from 0.9%. While there was no change in the forecast for consumer price inflation, the central bank noted that long-term inflation expectations had stopped declining.

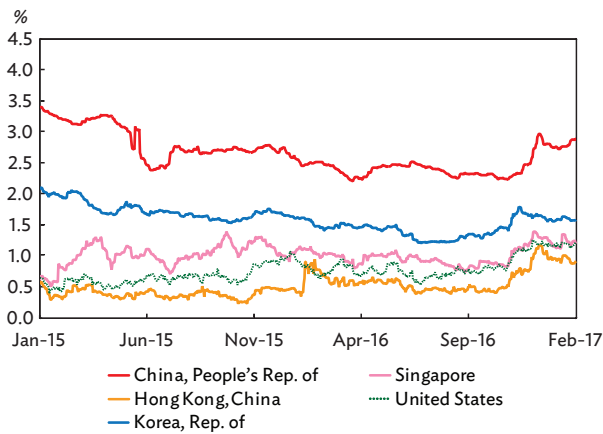
Japan's GDP data showed that growth was unchanged at 0.3% q-o-q in Q4 2016 from the previous quarter. Even more encouraging, exports from Japan increased 5.4% y-o-y in December and 1.3% y-o-y in January following 14 months of y-o-y declines, showing that global demand is improving.

In emerging East Asia, there are signs of improving growth in some markets. In Hong Kong, China, GDP growth rose to 3.1% y-o-y in Q4 2016 from 2.0% y-o-y in the prior quarter. Malaysia's GDP growth also accelerated to 4.5% y-o-y from 4.3% y-o-y over the same period. In Singapore, GDP grew 2.9% y-o-y in Q4 2016, up from 1.2% y-o-y growth in Q3 2016. Viet Nam reported GDP growth of 6.2% for 2016, up from 5.9% y-o-y growth in the first 3 quarters of 2016. As a result of the better growth outlook, risk appetite has been returning to the region.

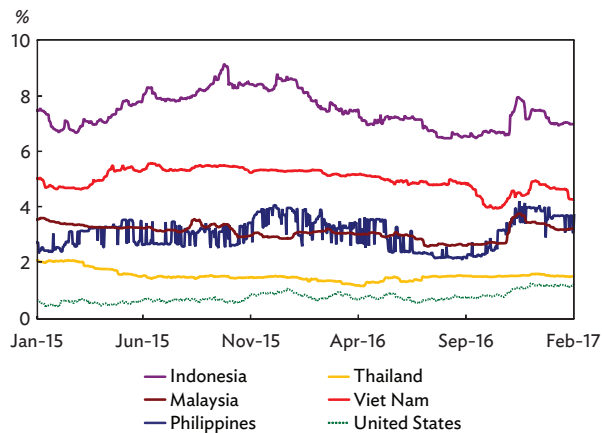
The improved outlook has led to declines in 2-year yields in all markets except the PRC (**Figures 6a, 6b**). For 10-year yields, declines were noted in all markets except for the PRC, the Republic of Korea, the Philippines, and Thailand (**Figures 7a, 7b**).¹⁰

Improved investor sentiment was also evident in gains in foreign exchange and equity markets in most emerging East Asian economies. This has also led to downward shifts in most yield curves in the region (**Figure 8**). The yield curve shifted downward for all tenors in Hong Kong, China; Singapore; and Viet Nam; and for most tenors in Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand. The PRC was the sole market where the entire yield curve shifted upward.

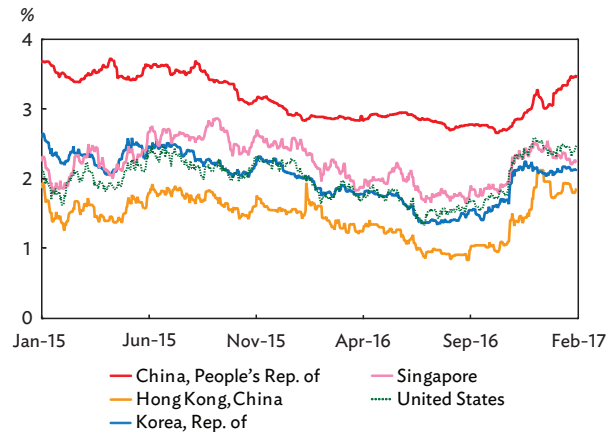
¹⁰ Bond yields in many emerging East Asian markets have rebounded slightly since the end of the review period (mid-February), largely due to the United States Federal Reserve's policy rate hike on 15 March. Nevertheless, regional bond yields were still mostly down year-to-date as of 15 March.

Figure 6a: 2-Year Local Currency Government Bond Yields

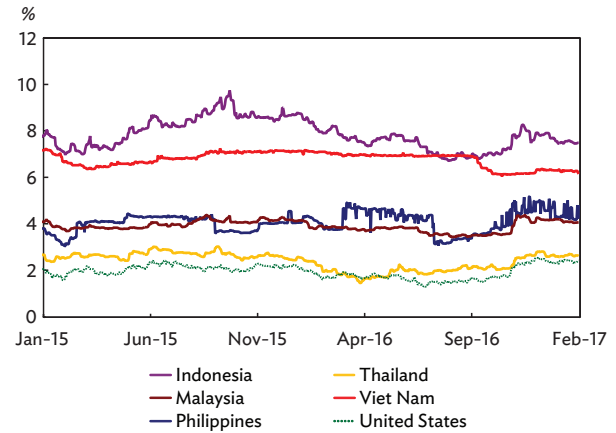
Note: Data as of 15 February 2017.
Source: Based on data from Bloomberg LP.

Figure 6b: 2-Year Local Currency Government Bond Yields

Note: Data as of 15 February 2017.
Source: Based on data from Bloomberg LP.

Figure 7a: 10-Year Local Currency Government Bond Yields

Note: Data as of 15 February 2017.
Source: Based on data from Bloomberg LP.

Figure 7b: 10-Year Local Currency Government Bond Yields

Note: Data as of 15 February 2017.
Source: Based on data from Bloomberg LP.

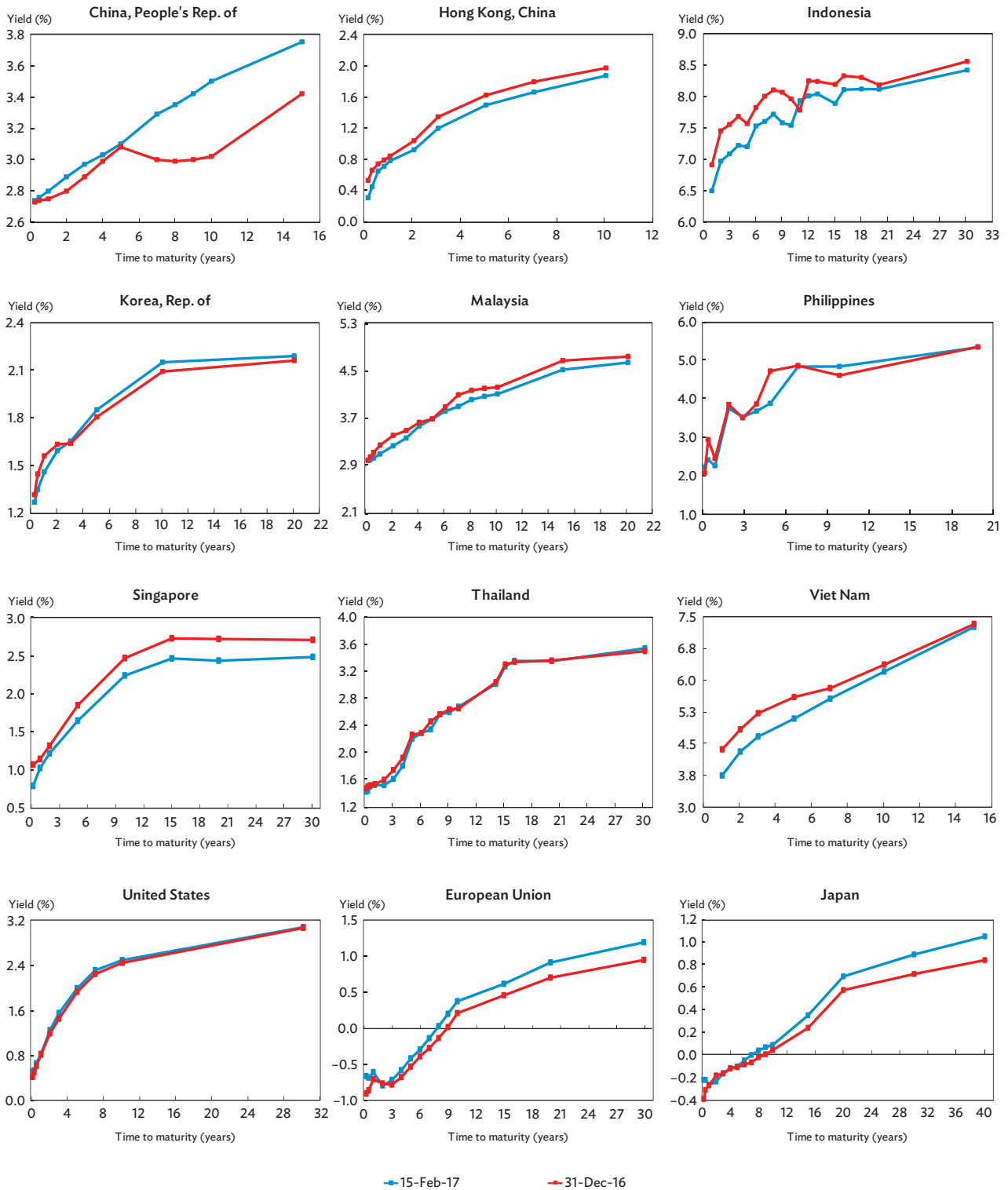
The PRC has been the exception to the fall in yields seen in most emerging East Asian markets as the People's Bank of China (PBOC) has been largely concerned with managing credit and asset price risk. In February, the PBOC raised rates on its repurchase agreements by 10 basis points (bps) and by 35 bps on its Standing Lending Facility.

The largest yield declines were seen in Indonesia, despite slower GDP growth in Q4 2016. This was largely due to improving market sentiments due to the current account deficit narrowing in Q4 2016, an upgrade in sovereign

rating outlooks (Fitch Ratings in December and Moody's Investors Service in February 2017), higher international reserves, and various structural reforms initiated by the government.

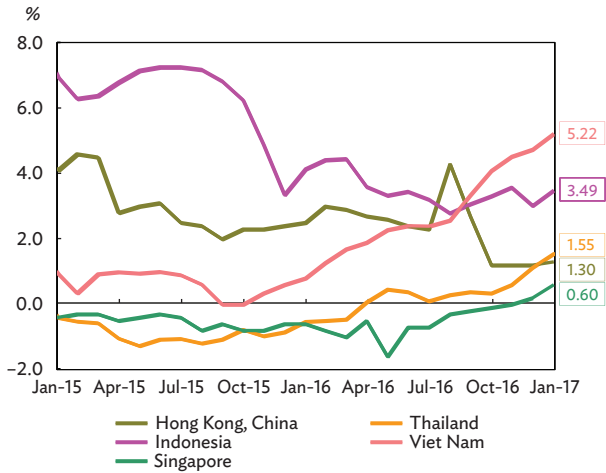
In addition, improving economic growth and rising energy prices have resulted in steadily rising inflation rates. Most emerging East Asian markets showed a rise in their inflation rate in January (**Figures 9a**). Rising prices have pushed Singapore out of deflation. Malaysia had the most rapid rise in y-o-y inflation in January versus December (**Figure 9b**).

Figure 8: Benchmark Yield Curves—Local Currency Government Bonds



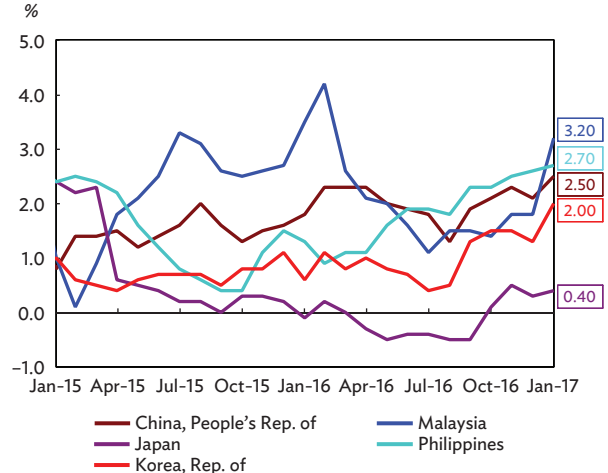
Source: Based on data from Bloomberg LP.

Figure 9a: Headline Inflation Rates



Note: Data as of January 2017.
Source: Based on data from Bloomberg LP.

Figure 9b: Headline Inflation Rates



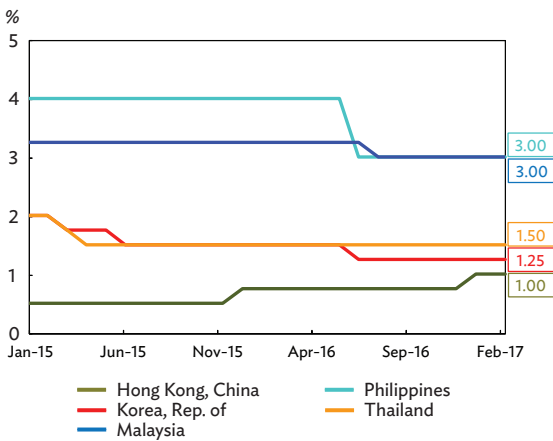
Note: Data as of January 2017.
Source: Based on data from Bloomberg LP.

While there have been improvements in the global economy, central banks have largely maintained their existing monetary policy stances while awaiting greater clarity on the possible direction and impacts of US monetary policy. Central bank policy rates were unchanged in Q4 2016 in all emerging East Asian markets except Hong Kong, China, which raised its policy rate in December following the Federal Reserve rate hike (Figures 10a, 10b). The PRC's policy rates were

unchanged as the PBOC has been using other tools, such as adjusting rates on reverse repurchase agreements, to guide monetary policy.

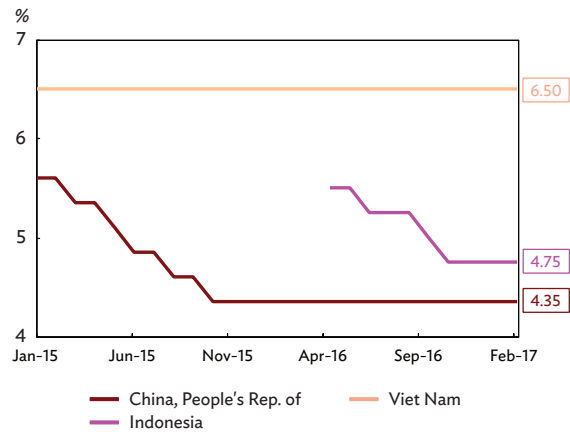
Given the improved economic prospects, the 2-year versus 10-year yield spread rose in nearly all regional markets except for Singapore between 31 December and 15 February (Figure 11).

Figure 10a: Policy Rates



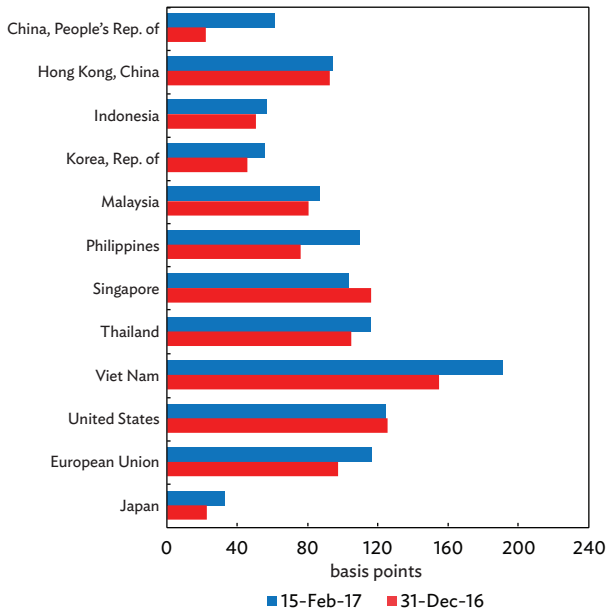
Notes:
1. Data as of 15 February 2017.
2. The policy rate of the Philippines was adjusted to 3.0% from 4.0% in June following the shift in the Bangko Sentral ng Pilipinas' monetary operations to an interest rate corridor system.
Source: Based on data from Bloomberg LP.

Figure 10b: Policy Rates



Notes:
1. Data as of 15 February 2017.
2. Bank Indonesia shifted its policy rate to the 7-day reverse repurchase rate effective 19 August 2016.
Source: Based on data from Bloomberg LP.

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



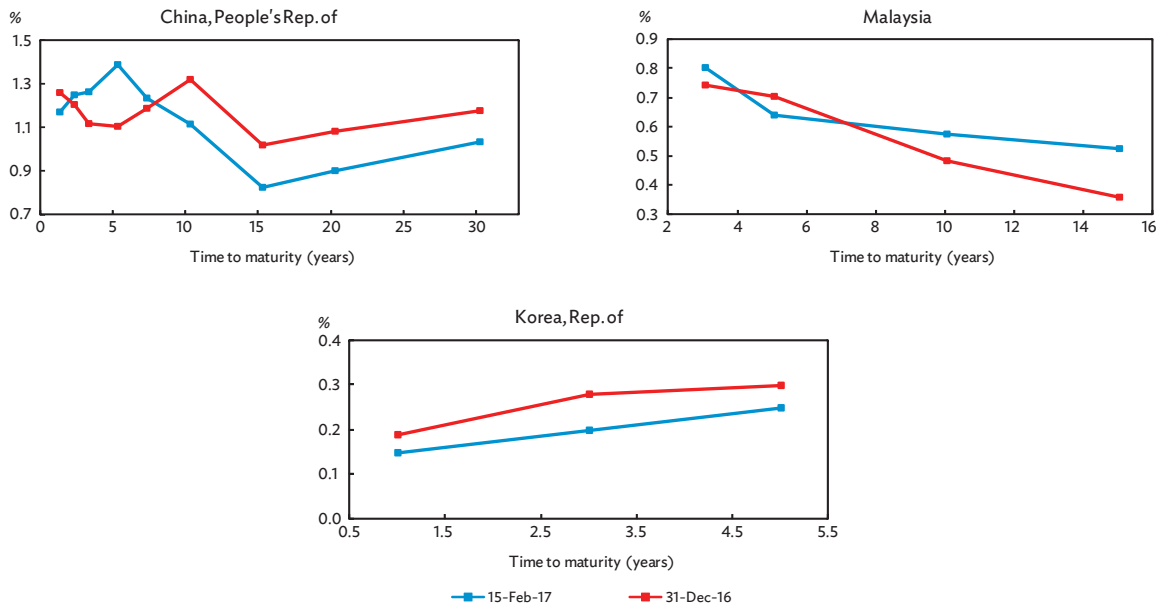
Source: Based on data from Bloomberg LP.

The AAA-rated corporate yield versus government yield spread fell in the PRC and the Republic of Korea, but rose in Malaysia.

Yield spreads of AAA-rated corporate yields versus government yields fell between 31 December and 15 February in the PRC on the back of improving confidence as the PBOC attempts to reduce leverage in the financial system. Improving investor sentiments in the Republic of Korea also led to a decline in spreads over the same period (Figure 12a). Malaysia was one of the few bond markets that experienced outflows in the early part of 2017, leading to a rise in AAA-rated credit spreads for most tenors.

In all three markets for which data are available, the yield spreads between AAA-rated corporates and lower-rated corporates were mostly unchanged between 31 December and 15 February (Figure 12b).

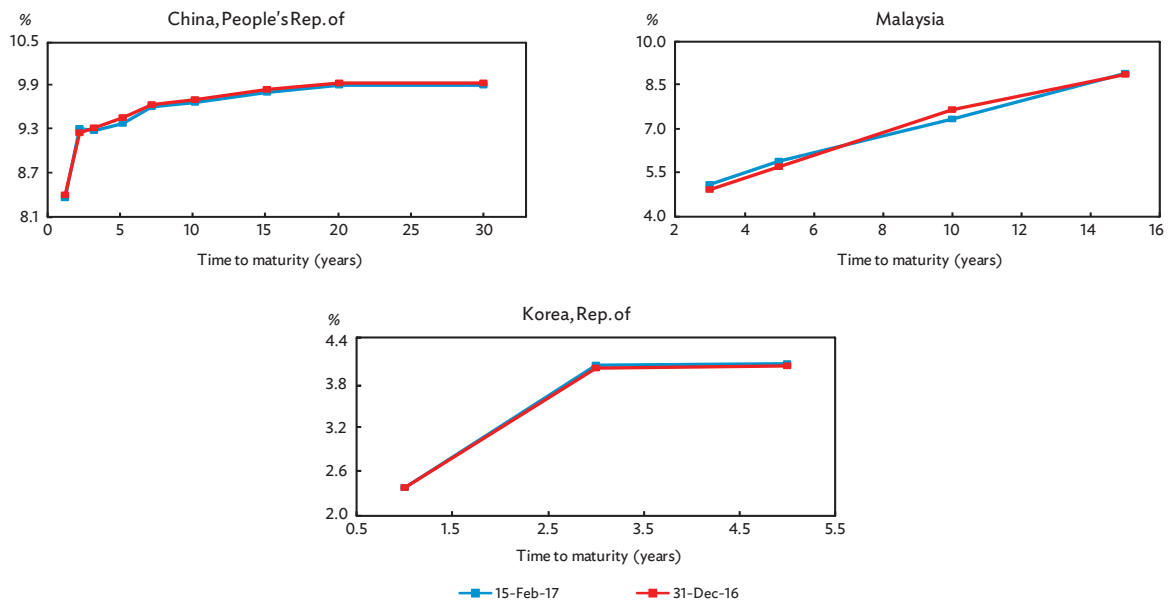
Figure 12a: Credit Spreads—Local Currency Corporates Rated AAA vs. Government Bonds



Notes:

- Credit spreads are obtained by subtracting government yields from corporate indicative yields.
 - For Malaysia, data on corporate bond yields are as of 30 December 2016 and 14 February 2017.
- Sources: People's Republic of China (*Wind Information*), Republic of Korea (*EDAILY BondWeb*), and Malaysia (Bank Negara Malaysia).

Figure 12b: Credit Spreads—Lower-Rated Local Currency Corporates vs. AAA



Notes:

1. For the People's Republic of China and the Republic of Korea, credit spreads are obtained by subtracting corporate indicative yields rated AAA from corporate indicative yields rated BBB+.
2. For Malaysia, credit spreads are obtained by subtracting corporate indicative yields rated AAA from corporate indicative yields rated BBB.
3. For Malaysia, data on corporate bond yields are as of 30 December 2016 and 14 February 2017.

Sources: People's Republic of China (*Wind Information*), Republic of Korea (*EDAILY BondWeb*), and Malaysia (Bank Negara Malaysia).