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Highlights

Bond Market Outlook

Bond yields in most emerging East Asian markets fell between 1 March and 15 May amid a weak global economy.[1] The exceptions were the People's Republic of China (PRC) and the Philippines, where yields generally picked up.

The United States (US) Federal Reserve continued to exercise caution in keeping interest rates steady at its Federal Open Market Committee meeting on 26–27 April. Global growth forecasts for 2016 have been revised downward amid sluggishness in the world economy. In March, the Asian Development Bank forecasts that developing Asia's growth would decelerate from 5.9% in 2015 to 5.7% in 2016 and 2017.[2] In April, the International Monetary Fund cut its 2016 global growth forecast to 3.2%, down from 3.4% in January. Against this backdrop, bond yields in emerging East Asia generally decreased between 1 March and 15 May, including yields for 10-year local currency (LCY) government bonds.

Emerging East Asian equity markets were up in all economies except Indonesia and Malaysia between 1 March and 15 May. The region's currencies also generally strengthened against the US dollar during the review period, with the Korean won appreciating the most, followed by the Malaysian ringgit. Credit default swap spreads fell in emerging East Asian markets, indicating reduced perceptions of default risk.

The generally benign picture for emerging East Asian LCY bond markets is subject to a number of risks. First, the US Federal Reserve may raise interest rates within the year, which could cause investors to pull back from the region's bond markets. In addition, a broad-based global economic slowdown could amplify global financial instability and further dent global growth. Finally, deflation is emerging as a new risk to financial stability in emerging East Asia.

Local Currency Bond Market Growth in Emerging East Asia

The size of emerging East Asia's LCY bond market expanded to USD9,608 billion at the end of March, up 3.9% quarter-on-quarter and 20.4% year-on-year in the first quarter (Q1) of 2016. The PRC's bond market remained the largest in the region, accounting for a 67.7% share of emerging East Asia's total bond stock at the end of March. The next two largest LCY bond markets were those of the Republic of Korea and Malaysia.

Government bonds continued to dominate the region's LCY bond market. Government bonds outstanding reached USD5,925 billion at the end of March, accounting for a 61.7% share of the region's aggregate bond stock. Corporate bonds outstanding reached a size of USD3,683 billion. All markets in the region except the Republic of Korea's have a larger proportion of government bonds than corporate bonds.

As a share of gross domestic product (GDP), emerging East Asia's LCY bond market climbed to 65.4% in Q1 2016 from 63.7% in the fourth quarter of 2015, with gains coming from both the government and corporate bond segments. The Republic of Korea had the largest share of bonds to GDP in the region at the end of March at 129.8%, which is a reflection of its well-developed bond market. The next two largest bond markets in the region as a share of GDP were those of Malaysia (97.4%) and Singapore (77.9%).

LCY bond issuance in emerging East Asia totaled USD1,052 billion in Q1 2016, down 2.2% quarter-on-quarter but up 51.0% year-on-year. Of this amount, government bonds accounted for 63.8% and corporate bonds for 36.2%.

[1] Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
[2] Developing Asia comprises the 45 member economies of the Asian Development Bank.

Structural Developments in Local Currency Bond Markets

With the US Federal Reserve leaving its policy rates unchanged thrice in the first 5 months of the year, emerging East Asia's LCY bonds remained attractive to foreign investors, owing to their relatively high interest rates. The share of foreign holdings in LCY government bond markets rose in most emerging East Asian economies for which data are available.

The share of foreign holdings rose in the LCY government bond markets of Indonesia and Malaysia in Q1 2016, buoyed by their recovering currencies. In the Republic of Korea, the share of foreign investors' government bond holdings rose only marginally in the fourth quarter of 2015.

Foreign investor participation in emerging East Asia's LCY corporate bond market remains weak due to the market's illiquid nature. In Indonesia, the share of foreign investor holdings of corporate bonds fell to 7.4% at the end of March from 7.6% at the end of December. The share of foreign investor holdings in the Republic of Korea's corporate bond market accounted for an insignificant 0.2% of the total corporate bond stock at the end of December.

Net foreign capital inflows into emerging East Asian bond markets were strong in the first 4 months of the year. All emerging East Asian markets for which data are available showed net bond inflows every month from January through April, with the exception of the Republic of Korea, which posted net inflows only for the months of March and April.

Local Currency Bond Yields

Amid the backdrop of the US Federal Reserve leaving its key policy rate unchanged at its March and April meetings, yields for most tenors fell between 1 March and 15 May in all of the region's markets except those of the PRC and the Philippines. Weak global growth also contributed to the decline in yields.

The 2-year yield fell during the review period for all emerging East Asia economies with the exception (again) of the PRC and the Philippines. The pattern was similar for the 10-year yield except in the PRC where the 10-year rate was roughly stable.

Credit spreads between AAA-rated corporate bonds and government bonds fell for most tenors in the Republic of Korea and Malaysia during the review period. In Malaysia, sentiment improved over firmer oil prices. In the PRC, on the other hand, credit spreads rose due to a number of corporate debt defaults in the first half of 2016. Lower-rated corporate spreads in the PRC also rose, while they were unchanged in the Republic of Korea and Malaysia.

Theme Chapter: Drivers of Sovereign Bond Yields in Emerging Asia

Yield movements for 5-year LCY bonds varied across emerging Asia during the period 2000–2015, indicating evolving perceptions of the region's individual bond markets.[3]

Inflation has consistently shown to be a significant factor in determining yields. However, the impacts of consumer price inflation and producer price inflation on yields differ across economies, which suggests the need for tailored policy prescriptions depending on the drivers of consumer and producer inflation in a given economy.

Domestic liquidity is also an important yield driver. To the extent that it influences inflation and economic growth, there is a role for monetary authorities in promoting bond market liquidity.

The global economic environment also affects the region's bond yields, emphasizing the importance of domestic macroeconomic stability and bond market resilience in the face of global uncertainty.

[3] Emerging Asia comprises India, Indonesia, the Republic of Korea, Malaysia, the Philippines, Singapore, and Thailand.

Global and Regional Market Developments

Bond yields in most emerging East Asian markets fell between 1 March and 15 May against the backdrop of a weak world economy.[4] The main exceptions were the People's Republic of China (PRC) and the Philippines, where yields picked up during the review period. Bond yields in most major economies also declined, reflecting very low inflation bordering on deflation.

The overall trend of declining yields reflects a number of factors. The United States (US) Federal Reserve continued to exercise caution and decided to keep interest rates steady during Federal Open Market Committee meetings on 15–16 March and 26–27 April. The US Federal Reserve moderated its concerns over the world economy and presented a mixed overall picture of the US economy that included slowing economic activity, below-target inflation, and strengthening job market conditions. The central bank finds itself in a delicate situation in which the cases for and against higher interest rates are finely balanced, yet it decided to err on the side of caution.

Within emerging East Asia, the People's Bank of China reduced its reserve requirement ratio by 50 basis points (bps) on 1 March. Bank Indonesia has lowered its benchmark interest rate three times by a cumulative 75 bps since the beginning of the year.

The International Monetary Fund (IMF) cut its 2016 global growth forecast to 3.2% in its World Economic Outlook published in April, down from 3.4% in January, although it projected an uptick to 3.5% growth in 2017. The downward revision was driven by a number of trends. The advanced economies are still struggling to fully overcome the after effects of the global financial crisis. As a result, growth in advanced economies as a whole is projected to stall at 1.9% in 2016 before picking up only marginally to 2.0% in 2017. US growth is expected to remain flat at 2.4%, with only a slight acceleration to 2.5% in 2017. Strengthened public finances and an improved housing market notwithstanding, the strong dollar is impeding export growth and net exports thus remain a major drag on growth. High unemployment and weak investment are weighing on the eurozone's growth, which is projected by the IMF to reach only 1.5% in 2016 and 1.6% in 2017. In Japan, growth of 0.5% and –0.1% is projected for 2016 and 2017, respectively, amid tepid private consumption.

Emerging markets are also contributing to the IMF's downward revision to its global growth forecast. Subdued global commodity prices are slowing growth in emerging markets in Latin America, the Middle East, and elsewhere. Emerging East Asia is not only adversely affected by the gloomy global outlook, but is also contributing to it. For example, the PRC's ongoing growth slowdown is impacting both the regional and global outlook. In March 2016, the Asian Development Bank (ADB) projected developing Asia's growth to decelerate from 5.9% in 2015 to 5.7% in both 2016 and 2017.[5] The corresponding growth figures for the PRC are 6.9%, 6.5%, and 6.3%. East and Southeast Asian markets, which have close trade and other economic linkages with the PRC, will feel the impact of its slowdown. ADB's forecasts made in September 2015 for growth in developing Asia and the PRC in 2016 were 6.0% and 6.7%, respectively, both of which were higher than subsequent ADB forecasts made in March 2016.

Continued sluggishness in the world and regional economies, evident in the recent downward revisions of IMF and ADB growth forecasts, has helped push down bond yields in the region. Yields for 10-year local currency (LCY) government bonds declined in most emerging East Asian markets between 1 March and 15 May **(Table A)**. Due to the region's relatively strong fundamentals, the growing risk aversion in emerging markets has had only a limited effect in emerging East Asia so far. In fact, some emerging East Asian markets such as Indonesia, Malaysia, and Thailand have seen substantial foreign capital flows into their bond markets since the beginning of the year. Indonesia's 10-year bond yield fell by 56 bps during the review period, the 10-year yields of Singapore and Thailand fell by almost 30 bps each, and Viet Nam's 10-year yield saw a drop of 15 bps. Within the region, 10-year bond yields rose only in the Philippines (75 bps) and the PRC (2 bps).

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

[5] Developing Asia comprises the 45 member economies of the Asian Development Bank.

Table A: Changes in Global Financial Conditions

	2-Year Government Bond (bps)	10-Year Government Bond (bps)	5-Year Credit Default Swap Spread (bps)	Equity Index (%)	FX Rate (%)
Major Advanced Economies					
United States	(9)	(12)	–	3.5	–
United Kingdom	(5)	(2)	(3)	(0.2)	(3.0)
Japan	(3)	(5)	(10)	1.1	4.7
Germany	5	(2)	(5)	2.4	(4.1)
Emerging East Asia					
China, People's Rep. of	7	2	(2)	3.4	0.3
Hong Kong, China	0	(5)	–	1.6	0.1
Indonesia	(77)	(56)	(39)	(0.4)	0.2
Korea, Rep. of	(1)	(2)	(1)	2.6	5.0
Malaysia	(22)	(4)	(10)	(2.5)	3.3
Philippines	45	75	(3)	10.5	1.6
Singapore	(2)	(28)	–	2.0	2.0
Thailand	(3)	(27)	(25)	3.5	0.4
Viet Nam	(11)	(15)	(46)	8.8	(0.3)
Select European Markets					
Greece	(247)	(259)	(370)	19.7	(4.1)
Ireland	(4)	(5)	(3)	(3.8)	(4.1)
Italy	(0.2)	10	(6)	(1.6)	(4.1)
Portugal	6	14	(6)	1.2	(4.1)
Spain	(6)	5	(10)	1.3	(4.1)

( ) = negative, – = not available, bps = basis points, FX = foreign exchange.
Notes:
1. Data reflect changes between 1 March and 15 May 2016.
2. For emerging East Asia, a positive (negative) value for the FX rate indicates the appreciation (depreciation) of the local currency against the US dollar.
3. For European markets, a positive (negative) value for the FX rate indicates the depreciation (appreciation) of the local currency against the US dollar.
Sources: Bloomberg LP and Institute of International Finance.

Equity markets were up in all of the region's economies between 1 March and 15 May except for a marginal decline of 0.4% in Indonesia and a 2.5% drop in Malaysia. The Philippines' equity market climbed the most in the region during the review period, with a 10.5% gain, as the market cheered the relatively peaceful elections on 9 May. Viet Nam's equity market rose 8.8% on higher growth expectations.

The region's currencies generally rose between 1 March and 15 May. The Korean won appreciated the most vis-à-vis the US dollar, gaining 5.0% during the review period. The Malaysian ringgit gained 3.3%. Foreign fund inflows have buttressed financial markets in emerging East Asia. Positive investor sentiments and increased inflows contributed to the appreciation of exchange rates and gains in equity markets.

Credit default swap (CDS) spreads mostly fell between 1 March and 15 May, an indication of perceptions of reduced default risk **(Figure A)**. CDS spreads declined in mid-March after the US Federal Reserve held off raising interest rates. However, there has been a slight uptick in CDS spreads in some markets since March, particularly in the PRC due to increased corporate bond defaults, in Malaysia due to the 1MDB scandal, and in the Philippines due to preelection jitters. After peaking in February over concerns about Portugal's budget woes, CDS spreads in European markets declined following the announcement of stimulus measures by the European Central Bank on 10 March, including expanded bond purchase under its quantitative easing program **(Figure B)**. Reflecting a degree of optimism about the US economy, the US equity market gained and volatility measures declined during the review period **(Figure C)**.

Bond yields in major advanced economies declined between 1 March and 15 May, albeit by relatively small margins. Despite further stimulus from the European Central Bank, some peripheral eurozone economies saw their yields increase marginally. Most significantly, the yields of Greek bonds dropped 259 bps on expectations of a favorable debt agreement with international lenders **(Figure D)**. Emerging East Asia's risks premiums generally declined during the review period, with declines most evident in Indonesia and Viet Nam **(Figure E)**.

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

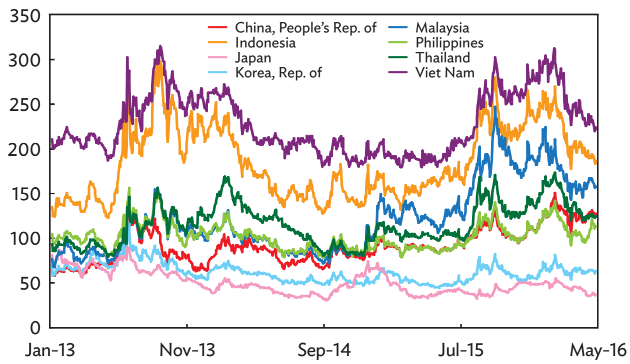


Figure B: Credit Default Swap Spreads for Select European Markets[a, b] (senior 5-year)

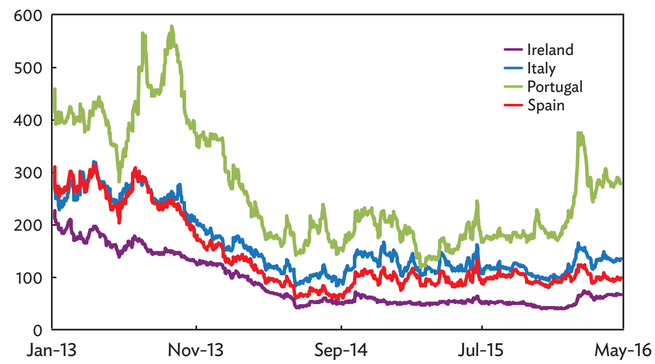


Figure C: United States Equity Volatility and Emerging Market Sovereign Bond Spreads[b] (% per annum)

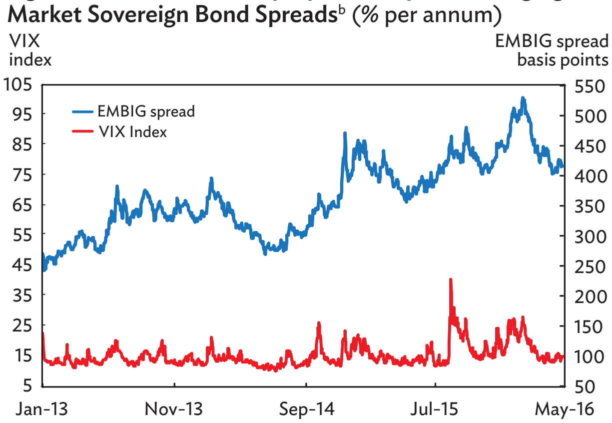


Figure D: 10-Year Government Bond Yields[b] (% per annum)

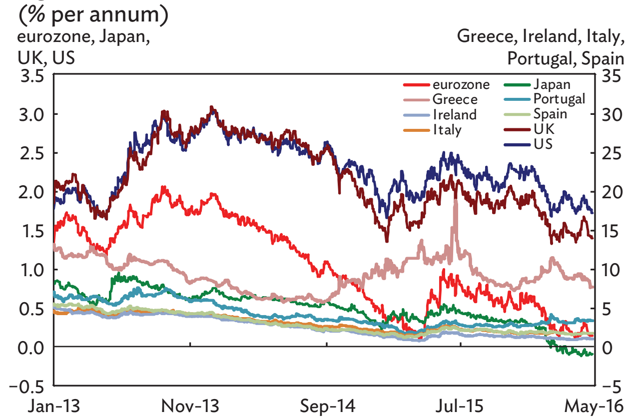


Figure E: JPMorgan Emerging Markets Bond Index Sovereign Stripped Spreads[a, b]

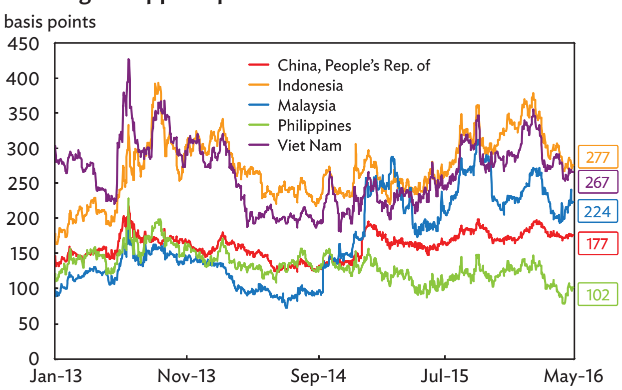
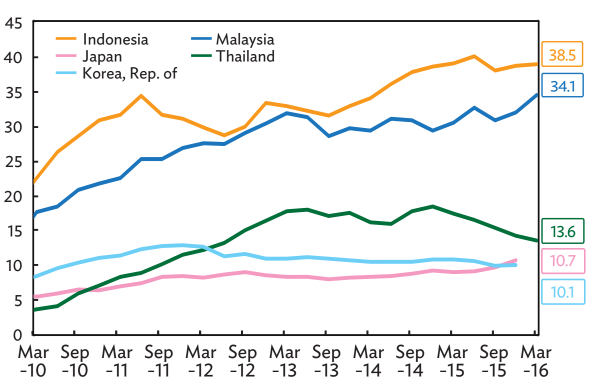


Figure F: Foreign Holdings of Local Currency Government Bonds in Select Asian Economies[c] (% of total)



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

Notes:

[a] In United States dollar and based on sovereign bonds.

[b] Data as of 15 May 2016.

[c] Data as of end-March 2016 except for Japan and the Republic of Korea (end-December 2015).

Sources: *AsianBondsOnline* and Bloomberg LP.

Recoveries in the Indonesian rupiah and Malaysian ringgit helped attract foreign funds into the Indonesian and Malaysian LCY government bond markets. Indonesia's foreign holdings as a share of the total market rose to 38.5% at the end of March as foreign investors continued to seek the region's highest yields. The share of foreign holdings in the Malaysian government bond market rose to 34.1% at the end of March from 31.7% at the end of December **(Figure F)**.

The generally benign picture for emerging East Asia's LCY bond markets is subject to a number of risks, even if these risks have abated somewhat since 1 April.

The US Federal Reserve may raise interest rates within the year, which could cause investors to pull back from the region's bond markets. While the US Federal Reserve kept interest rates unchanged in March and again in April, the minutes of the Federal Open Market Committee's April meeting, which were released on 18 May, raised the possibility that a June rate hike was much more likely than was being reflected in market expectations. However, US payroll data for May released on 3 June was weaker than expected, leading to renewed uncertainty over the timing of the next US Federal Reserve rate hike.

A broad-based global economic slowdown could amplify global financial instability, which would further dent global growth. The failure to gain sustainable growth traction since the global financial crisis has spread from advanced economies to emerging economies and now afflicts the entire world economy. The global financial system has also suffered two episodes of turbulence during the last 14 months. While a major global crisis does not seem imminent, the convergence of economic weakness and financial fragility make for a risky combination. Financial turmoil in Brazil, the Russian Federation, or other brittle emerging economies could spark worldwide financial volatility.

Deflation is emerging as a new risk to financial stability in emerging East Asian markets. While falling prices were confined to advanced economies until recently, the PRC, the Republic of Korea, Malaysia, Thailand, and other emerging economies experienced deflation in 2015. Deflation is so far largely limited to producer prices, with consumer price inflation remaining largely in positive territory. Nevertheless, falling prices expand the real value of debt and thus increase the repayment burden of borrowers, which can put lenders at risk. Furthermore, borrowing firms and households might be forced to cut back on investment and consumption, hurting aggregate demand and economic growth.

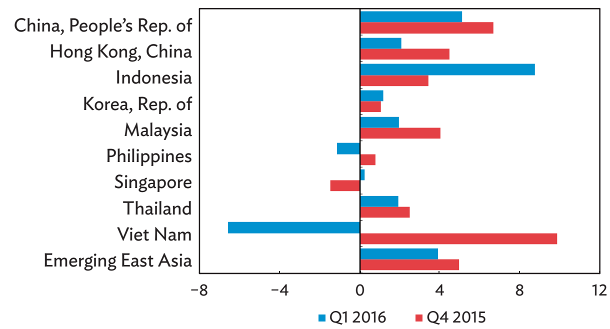
Bond Market Developments in the First Quarter of 2016

Size and Composition

The size of emerging East Asia's local currency bond market climbed to USD9,608 billion at the end of March.

Emerging East Asia's local currency (LCY) bond market expanded to a size of USD9,608 billion at the end of March on 3.9% quarter-on-quarter (q-o-q) growth in the first quarter (Q1) of 2016.[6] Growth in Q1 2016 was slower than the 5.0% q-o-q increase recorded in the fourth quarter (Q4) of 2015 **(Figure 1a)**. LCY bond markets in the People's Republic of China (PRC); Hong Kong, China; Malaysia; and Thailand recorded slower q-o-q growth rates in Q1 2016 than in Q4 2015. Markets in Indonesia, the Republic of Korea, and Singapore recorded faster q-o-q growth rates, while the amount of LCY bonds outstanding contracted on a q-o-q basis in the Philippines and Viet Nam in Q1 2016. The fastest growing bond markets in the region in Q1 2016 were those of Indonesia (8.8% q-o-q); the PRC (5.1% q-o-q); and Hong Kong, China (2.1% q-o-q).

Figure 1a: Growth of Local Currency Bond Markets in Q4 2015 and Q1 2016 (q-o-q, %)



q-o-q = quarter-on-quarter, Q1 = first 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 March 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*); 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).

At the end of March, the PRC's outstanding bonds totaled USD6,505 billion, which was the most in emerging East Asia and accounted for a 67.7% share of the region's total bond stock. Growth in the PRC's LCY bond market slowed to 5.1% q-o-q in Q1 2016 from 6.7% q-o-q in Q4 2015. Growth was broadly balanced between the government (5.2% q-o-q) and corporate (4.9% q-o-q) bond segments.

Government bond market growth was largely driven by increases in local government bonds as local governments refinanced existing debt and reduced borrowing costs by swapping debt for municipal bonds. Corporate bond market growth was buoyed by the rising stocks of commercial paper, commercial bank bonds, and Tier 2 notes.

The second largest LCY bond market in the region at the end of March was that of the Republic of Korea with outstanding bonds of USD1,788 billion. Growth of 1.2% q-o-q in Q1 2016 in the Republic of Korea's bond market was largely driven by the government bond segment, which climbed 2.1% q-o-q on increases in the stocks of treasury bonds and central bank bonds. The corporate bond market expanded at a slower pace of 0.5% q-o-q in Q1 2016.

In Malaysia, the LCY bond market reached a size of USD293 billion at the end of March on 1.9% q-o-q growth in Q1 2016. Government bonds expanded 2.7% q-o-q during the review period, led by Malaysian Government Securities and Government Investment Issues. The stock of central bank bills declined because of a lack of issuance from Bank Negara Malaysia. Growth in the corporate bond segment was only 1.0% q-o-q in Q1 2016 due to declining issuance.

Malaysia remains home to the largest *sukuk* (Islamic bond) market in the region, reflecting its expertise in Islamic finance. About 54% of Malaysia's aggregate LCY

[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.

bond market comprised *sukuk* at the end of March. About 40% of its government bond market is accounted for by *sukuk*; *sukuk*'s share of the corporate bond market is a dominant 71%.

Thailand's outstanding LCY bond stock stood at USD291 billion at the end of March, expanding 1.9% q-o-q in Q1 2016. Growth stemmed from an increase in government bonds, particularly central government bonds and central bank bonds. The Bank of Thailand issued more bonds during the first quarter of the year, suggesting that it may be intervening in response to the appreciation of the Thai baht. In the corporate bond segment, 3.2% q-o-q growth was recorded.

At the end of March, Singapore's LCY bond market reached a size of USD233 billion on marginal growth of 0.2% q-o-q in Q1 2016, reversing a 1.5% q-o-q decline in the previous quarter. Growth mostly stemmed from increases in the stock of Singapore Government Securities. The corporate bond segment rose marginally during the review period. On the other hand, the stock of Monetary Authority of Singapore bills contracted in Q1 2016 on declining issuance.

In Hong Kong, China, the outstanding size of LCY bonds expanded to USD214 billion at the end of March on overall growth of 2.1% q-o-q in Q1 2016. Much of the growth came from the government bond segment and was driven by increases in the stocks of Exchange Fund Bills and Hong Kong Special Administrative Region Government bonds. Corporate bonds rose at a pace of 0.5% q-o-q during the review period.

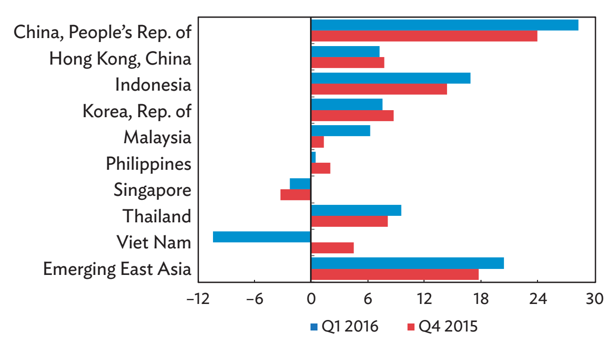
Indonesia's LCY bond market climbed to USD144 billion at the end of March on growth of 8.8% q-o-q, making it the region's fastest growing bond market in Q1 2016. Growth was largely driven by government bonds, particularly Treasury bills and bonds, as the Government of Indonesia continued its frontloading policy of issuing a higher volume of bonds in the first half of the year. The government is looking to fund a budget deficit of IDR273.2 trillion, or the equivalent of 2.15% of gross domestic product (GDP), which may further widen as the government is drafting revisions to the 2016 state budget. The stock of central bank bills issued by Bank Indonesia also climbed during the review period, further boosting the stock of government bonds. The corporate bond segment expanded in Q1 2016 as well, but at a slower pace of 1.6% q-o-q.

At the end of March, the LCY bond market in the Philippines stood at USD102 billion on a 1.1% q-o-q decline that resulted from a decrease in the stock of LCY government bonds, particularly Treasury bonds and bonds issued by government-owned or -controlled corporations, as the redemption of maturing bonds exceeded new debt issuance in Q1 2016. Corporate bonds also slipped marginally during the review period, falling 0.1% q-o-q.

Viet Nam's LCY bond market, the smallest in emerging East Asia, contracted 6.6% q-o-q to USD39 billion at the end of March. Much of the decline stemmed from the government bond segment, which fell 7.1% q-o-q in Q1 2016 due to a sharp drop in the stock of central bank bonds. State-owned enterprise bonds also fell during the review period. On the other hand, Treasury bills and bonds recorded a 5.0% q-o-q hike due to improved investor appetite for Viet Nam's debt. The outstanding amount of corporate bonds was up 10.1% q-o-q on a single issuance from real estate firm Vingroup amounting to VND3.0 trillion.

Year-on-year (y-o-y) growth in emerging East Asia's bond market was 20.4% in Q1 2016, up from a 17.7% y-o-y expansion in Q4 2015 **(Figure 1b)**. The PRC's bond

Figure 1b: Growth of Local Currency Bond Markets in Q4 2015 and Q1 2016 (y-o-y, %)



Q1 = first quarter, Q4 = fourth quarter, y-o-y = year-on-year.

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

Sources: People's Republic of China (*ChinaBond* and *Wind*); 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).

market posted the fastest annual growth rate in the region at 28.3% y-o-y, followed by Indonesia with a 16.8% y-o-y gain and Thailand at 9.6% y-o-y. Growth of between 0.5% y-o-y and 7.6% y-o-y was recorded in all other emerging East Asian markets except Singapore and Viet Nam, whose respective bond markets posted y-o-y declines.

Emerging East Asia's LCY bond market remains dominated by government bonds, which accounted for a 61.7% share of the region's aggregate bond stock at the end of March **(Table 1)**. The region's government bond market stood at USD5,925 billion on growth of 4.4% q-o-q and 24.1% y-o-y in Q1 2016. The largest government bond market in the region was that of the PRC at a size of USD4,306 billion, which comprised 72.7% of emerging East Asia's total government bond stock. This was followed by the Republic of Korea at USD734 billion and Thailand at USD217 billion. Except for the Republic of Korea, all markets in the region had a larger government bond segment than corporate bond segment. In the smaller markets of Indonesia, the Philippines, and Viet Nam, the government bond segment accounted for more than 80% of the LCY bond stock at the end of March, while the rest of emerging East Asia's markets had government bond segment shares of between 55% and 75%.

At the end of March, the region's stock of corporate bonds reached a size of USD3,683 billion, climbing 3.2% q-o-q and 14.9% y-o-y in Q1 2016. The PRC has the largest corporate bond market in the region at a size of USD2,199 billion, followed by the Republic of Korea at USD1,054 billion. The two markets together dominate the region's corporate bond segment, accounting for 59.7% and 28.6% of the region's total, respectively.

The size of emerging East Asia's LCY bond market as a share of GDP climbed to 65.4% in Q1 2016 from 63.7% in Q4 2015 **(Table 2)**. Government bonds as a share of GDP rose to 40.3% in Q1 2016 from 39.2% in Q4 2015, while corporate bonds rose to a 25.1% share of GDP from 24.6%.

The Republic of Korea's LCY bond market as a share of GDP stood at 129.8% at the end of March, the highest in the region, which is a reflection of its well-developed bond market. The next two largest bond markets in the region as a share of GDP were those of Malaysia (97.4%) and Singapore (77.9%). The smallest bond markets in GDP terms were those of Indonesia (16.2%) and Viet Nam (20.6%).

Offshore investors remained attracted to emerging East Asia's LCY government bonds.

With the United States (US) Federal Reserve leaving its policy rates unchanged in the first 5 months of the year, emerging East Asia's LCY bonds remained attractive to foreign investors, owing to their relatively higher interest rates.

The share of foreign holdings in LCY government bond markets rose in most emerging East Asian markets where data are available. The largest increase was seen in Malaysia, where foreign investors accounted for a 34.1% share of outstanding LCY government bonds at the end of March, up from a 31.7% share at the end of December **(Figure 2)**. The strong demand for Malaysian bonds was a result of a recovery in oil prices, which led to investor expectations of improved government finances and better corporate earnings.

Indonesia remained the market with the largest share of foreign investor holdings at 38.5% at the end of March, up slightly from 38.2% in Q4 2015. The Indonesian market's attractiveness is due to its bonds having the highest interest rates in emerging East Asia.

In the Republic of Korea, foreign investment remained steady in the most recent quarter for which data are available, with the share of foreign investor holdings rising slightly to 10.1% at the end of December from 10.0% at the end of September. On the other hand, the share of foreign holdings in Thailand's LCY bond market declined to 13.6% at the end of March from 14.2% at the end of December.

Foreign investor participation in emerging East Asia's LCY corporate bond markets remains weak due to its illiquid nature. In Indonesia, the share of foreign investors has been steadily declining over the past year. The share of foreign investor holdings of corporate bonds fell to 7.4% at the end of March from 7.6% at the end of December **(Figure 3)**. The share of foreign investor holdings in the Republic of Korea's corporate bond market has declined steadily for several years and now accounts for an insignificant 0.2% of the total corporate bond stock.

Table 1: Size and Composition of Local Currency Bond Markets

	Q1 2015		Q4 2015		Q1 2016		Growth Rate (LCY-base %)				Growth Rate (USD-base %)			
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q1 2015		Q1 2016		Q1 2015		Q1 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	5,279	100.0	6,150	100.0	6,505	100.0	1.6	12.0	5.1	28.3	1.7	12.3	5.8	23.2
Government	3,370	63.8	4,067	66.1	4,306	66.2	1.0	10.0	5.2	33.0	1.1	10.3	5.9	27.8
Corporate	1,909	36.2	2,083	33.9	2,199	33.8	2.7	15.7	4.9	19.9	2.8	16.0	5.5	15.2
Hong Kong, China														
Total	199	100.0	209	100.0	214	100.0	2.6	1.5	2.1	7.2	2.6	1.5	2.0	7.2
Government	111	55.5	120	57.1	123	57.8	1.0	1.4	3.2	11.7	1.0	1.4	3.2	11.6
Corporate	89	44.5	90	42.9	90	42.2	4.7	1.6	0.5	1.7	4.7	1.7	0.4	1.6
Indonesia														
Total	125	100.0	127	100.0	144	100.0	6.5	16.5	8.8	16.8	0.9	1.2	13.3	15.4
Government	107	86.0	109	85.7	125	86.7	7.2	18.6	9.9	17.7	1.6	3.1	14.5	16.2
Corporate	17	14.0	18	14.3	19	13.3	2.1	4.7	1.6	11.6	(3.2)	(9.0)	5.8	10.2
Korea, Rep. of														
Total	1,712	100.0	1,720	100.0	1,788	100.0	2.3	8.3	1.2	7.6	0.6	3.9	4.0	4.4
Government	712	41.6	700	40.7	734	41.1	3.2	16.7	2.1	6.3	1.5	12.0	5.0	3.2
Corporate	1,001	58.4	1,020	59.3	1,054	58.9	1.6	3.0	0.5	8.5	(0.1)	(1.1)	3.3	5.3
Malaysia														
Total	290	100.0	261	100.0	293	100.0	(2.7)	2.1	1.9	6.3	(8.1)	(10.0)	12.3	0.9
Government	165	57.0	142	54.7	161	55.1	(5.4)	(0.3)	2.7	2.7	(10.7)	(12.1)	13.1	(2.5)
Corporate	125	43.0	118	45.3	131	44.9	1.0	5.4	1.0	11.1	(4.6)	(7.1)	11.2	5.5
Philippines														
Total	105	100.0	101	100.0	102	100.0	0.4	5.6	(1.1)	0.5	0.4	5.9	0.9	(2.2)
Government	88	83.7	84	82.9	85	82.7	0.6	4.5	(1.3)	(0.6)	0.6	4.8	0.7	(3.3)
Corporate	17	16.3	17	17.1	18	17.3	(0.4)	11.6	(0.1)	6.3	(0.4)	11.9	1.9	3.4
Singapore														
Total	234	100.0	221	100.0	233	100.0	(0.8)	5.3	0.2	(2.2)	(4.2)	(3.5)	5.4	(0.4)
Government	140	59.9	129	58.6	136	58.6	(1.1)	4.8	0.3	(4.4)	(4.5)	(4.0)	5.5	(2.7)
Corporate	94	40.1	91	41.4	96	41.4	(0.4)	6.0	0.2	1.1	(3.8)	(2.9)	5.4	2.9
Thailand														
Total	286	100.0	278	100.0	291	100.0	0.6	1.7	1.9	9.6	1.7	1.3	4.6	1.5
Government	218	76.0	208	74.9	217	74.5	1.9	0.7	1.5	7.5	3.0	0.3	4.1	(0.4)
Corporate	69	24.0	70	25.1	74	25.5	(3.2)	5.1	3.2	16.3	(2.1)	4.6	5.9	7.7
Viet Nam														
Total	45	100.0	41	100.0	39	100.0	8.9	10.9	(6.6)	(10.3)	8.0	8.5	(5.8)	(13.3)
Government	44	98.3	40	96.8	38	96.3	9.0	10.8	(7.1)	(12.2)	8.1	8.4	(6.3)	(15.1)
Corporate	0.7	1.7	1	3.2	1	3.7	3.2	18.5	10.1	103.7	2.4	16.0	11.1	97.0
Emerging East Asia														
Total	8,275	100.0	9,108	100.0	9,608	100.0	1.6	9.9	3.9	20.4	0.9	8.1	5.5	16.1
Government	4,954	59.9	5,599	61.5	5,925	61.7	1.2	9.8	4.4	24.1	0.7	8.2	5.8	19.6
Corporate	3,321	40.1	3,509	38.5	3,683	38.3	2.1	10.2	3.2	14.9	1.3	7.9	4.9	10.9
Japan														
Total	9,000	100.0	8,931	100.0	9,842	100.0	0.6	2.4	3.2	2.5	0.3	(12.0)	10.2	9.4
Government	8,326	92.5	8,274	92.7	9,148	92.9	0.7	2.7	3.5	3.0	0.4	(11.8)	10.6	9.9
Corporate	674	7.5	656	7.3	694	7.1	(0.5)	(1.1)	(0.9)	(3.5)	(0.8)	(15.0)	5.8	3.0

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first 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 March 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*); 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).

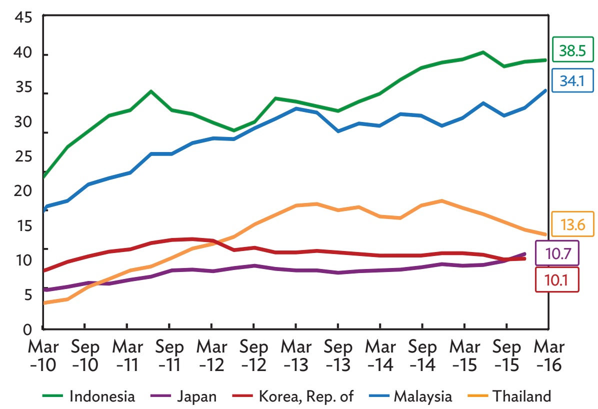
Table 2: Size and Composition of Local Currency Bond Markets (% of GDP)

	Q1 2015	Q4 2015	Q1 2016
China, People's Rep. of			
Total	50.7	59.0	61.1
Government	32.4	39.0	40.4
Corporate	18.4	20.0	20.6
Hong Kong, China			
Total	67.3	67.8	68.6
Government	37.4	38.7	39.6
Corporate	30.0	29.1	29.0
Indonesia			
Total	15.1	15.2	16.2
Government	13.0	13.0	14.0
Corporate	2.1	2.2	2.2
Korea, Rep. of			
Total	126.6	129.6	129.8
Government	52.6	52.7	53.3
Corporate	74.0	76.9	76.5
Malaysia			
Total	96.0	96.7	97.4
Government	54.8	52.9	53.7
Corporate	41.3	43.8	43.8
Philippines			
Total	36.6	35.8	34.8
Government	30.6	29.7	28.8
Corporate	6.0	6.1	6.0
Singapore			
Total	81.5	77.7	77.9
Government	48.8	45.5	45.6
Corporate	32.7	32.2	32.3
Thailand			
Total	70.4	74.0	74.7
Government	53.5	55.4	55.7
Corporate	16.9	18.6	19.0
Viet Nam			
Total	24.3	22.2	20.6
Government	23.9	21.5	19.8
Corporate	0.4	0.7	0.8
Emerging East Asia			
Total	57.7	63.7	65.4
Government	34.5	39.2	40.3
Corporate	23.2	24.6	25.1
Japan			
Total	220.9	215.1	221.4
Government	204.3	199.3	205.8
Corporate	16.5	15.8	15.6

GDP = gross domestic product, Q1 = first quarter, Q4 = fourth quarter.
Notes:
1. Data for GDP is from CEIC Data.
2. For Singapore, corporate bonds outstanding data based on *AsianBondsOnline* estimates.

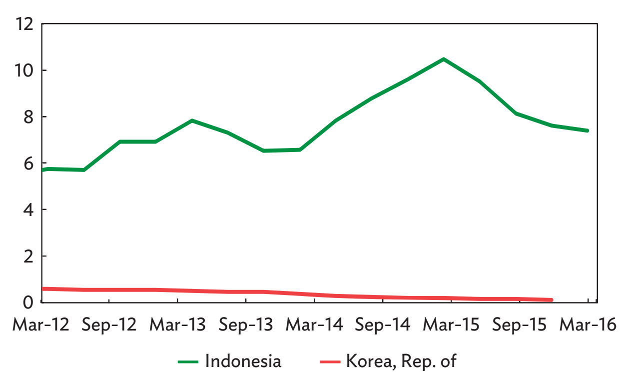
Sources: People's Republic of China (*ChinaBond* and *Wind*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; and Indonesia Stock Exchange); Republic of Korea (EDAILY *BondWeb* and the Bank of 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).

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



LCY = local currency.
Note: Data as of end-March 2016 except for Japan and the Republic of Korea (end-December 2015).
Source: *AsianBondsOnline*.

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

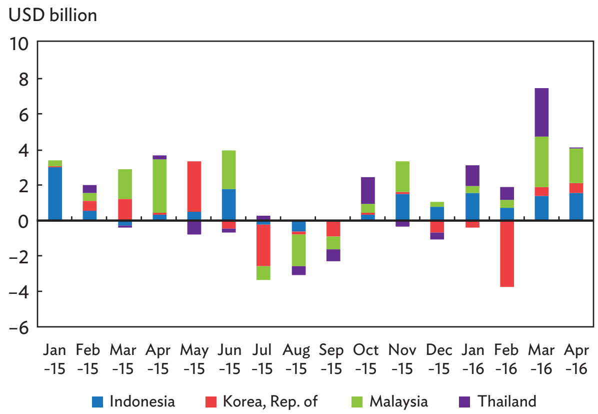


Note: For Indonesia, data as of 1 April 2016. For the Republic of Korea, data as of end-December 2015.
Source: Based on data from Otoritas Jasa Keuangan and the Bank of Korea.

Net foreign capital inflows into emerging East Asia's bond markets were strong in January–April.

With US Federal Reserve policy rate hikes put on hold in March and April, and improved investor sentiment in emerging East Asia as a whole, net foreign capital flows into emerging East Asian bond markets were strong in January–April **(Figure 4)**.

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



Notes:
1. The Republic of Korea and Thailand provide data on bond flows. For Indonesia and Malaysia, month-on-month changes in foreign holdings of local currency government bonds were used as a proxy for bond flows.
2. Data provided as of end-April 2016.
3. Figures were computed based on 30 April 2016 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.

All emerging East Asian bond markets for which data are available showed net bond inflows in March and April as the US Federal Reserve held off raising policy rates during its March and April meetings. Prior to this, the Republic of Korea was alone among emerging East Asian economies included in Figure 4 in recording net bond outflows in January and February.

Strengthening currencies in Malaysia, where the ringgit gained 6.1% against the US dollar year-to-date through 15 May, and Indonesia, where the rupiah gained 3.7% against the US dollar year-to-date through 15 May, contributed to foreign funds flowing into their respective bond markets during the review period. The largest foreign fund inflows in the region in January–April were recorded in Malaysia at USD5.6 billion and Indonesia at USD5.1 billion. In the Thai LCY bond market, foreign fund inflows totaled USD4.7 billion in the first 4 months of the year.

While the Republic of Korea recorded outflows in January and February, foreign investors returned in March and April. However, this did not fully offset the outflows in January and February, leading to net outflows of USD3.1 billion in the first 4 months of the year.

Emerging East Asian LCY bond issuance reached USD1,052 billion in Q1 2016.

LCY bond issuance in emerging East Asia reached USD1,052 billion in Q1 2016, with 63.8% comprising government bonds and 36.2% comprising corporate bonds **(Table 3)**. Issuance growth was negative on a q-o-q basis—as the Q4 2015 issuance total stood at USD1,060 billion—but was positive on a y-o-y basis—as the Q1 2015 issuance total stood at USD718 billion.

The PRC continued to be the largest source of new LCY bonds in the region with Q1 2016 issuance amounting to USD629 billion (CNY4,060 billion), which accounted for about three-fifths of the regional total. Issuance in Q1 2016 was down from Q4 2015, mainly as a result of a decline in the issuance of Treasury bonds and other government bonds. At the same time, LCY bond issuance in the PRC more than doubled between Q1 2015 and Q1 2016, buoyed by vibrant y-o-y growth in issuance in both the government and corporate segments. Government bond issuance was driven by local government debt while corporate bond issuance was buoyed by commercial bank and Tier 2 bonds.

LCY bond issuance in Hong Kong, China in Q1 2016 summed to USD92 billion (HKD710 billion), registering growth of 2.1% q-o-q and 22.2% y-o-y on the back of increased issuance from the Hong Kong Monetary Authority and the corporate bond segment.

In the Republic of Korea, USD153 billion (KRW174,810 billion) worth of new LCY bonds were issued in Q1 2016, which was down on both a q-o-q and y-o-y basis, largely due to lower corporate bond sales. Meanwhile, issuance of LCY government bonds increased on a q-o-q basis but dropped on a y-o-y basis in Q1 2016.

In the six Southeast Asian economies belonging to emerging East Asia—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam—combined LCY bond issuance expanded to USD179 billion in Q1 2016 from USD166 billion in Q4 2015 and from USD170 billion in Q1 2015. The q-o-q growth stemmed from increases in Indonesia, the Philippines, and Thailand, while the y-o-y uptick was induced by positive growth in all Southeast Asian markets except Singapore's.

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

	Q1 2015		Q4 2015		Q1 2016		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
							Q1 2016		Q1 2016	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of										
Total	299	100.0	644	100.0	629	100.0	(2.8)	118.8	(2.2)	110.2
Government	144	48.0	381	59.2	360	57.2	(6.2)	160.6	(5.6)	150.3
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	144	48.0	381	59.2	360	57.2	(6.2)	160.6	(5.6)	150.3
Corporate	156	52.0	262	40.8	269	42.8	2.0	80.2	2.7	73.1
Hong Kong, China										
Total	75	100.0	90	100.0	92	100.0	2.1	22.2	2.0	22.1
Government	64	86.0	80	88.5	80	87.8	1.2	24.8	1.1	24.7
Central Bank	63	84.6	79	87.5	80	87.6	2.2	26.5	2.1	26.4
Treasury and Other Govt.	1	1.4	0.9	1.0	0.2	0.2	(77.8)	(79.7)	(77.8)	(79.8)
Corporate	11	14.0	10	11.5	11	12.2	8.8	6.3	8.7	6.2
Indonesia										
Total	12	100.0	8	100.0	16	100.0	93.6	38.1	101.6	36.4
Government	11	92.0	7	90.3	15	93.5	100.4	40.4	108.7	38.6
Central Bank	2	17.7	1	14.1	3	18.0	147.3	40.4	157.6	38.6
Treasury and Other Govt.	9	74.3	6	76.2	12	75.5	91.7	40.3	99.7	38.6
Corporate	0.9	8.0	0.8	9.7	1	6.5	30.1	12.2	35.5	10.8
Korea, Rep. of										
Total	174	100.0	160	100.0	153	100.0	(7.2)	(9.2)	(4.7)	(11.9)
Government	82	47.4	72	44.6	76	49.4	2.6	(5.4)	5.5	(8.2)
Central Bank	45	26.0	37	22.9	39	25.7	4.1	(10.3)	6.9	(12.9)
Treasury and Other Govt.	37	21.4	35	21.7	36	23.7	1.1	0.6	3.9	(2.4)
Corporate	91	52.6	89	55.4	77	50.6	(15.2)	(12.7)	(12.8)	(15.3)
Malaysia										
Total	13	100.0	22	100.0	16	100.0	(33.9)	25.8	(27.2)	19.5
Government	8	62.3	9	39.6	7	46.0	(23.3)	(7.2)	(15.5)	(11.8)
Central Bank	0	0.0	3	11.6	0	0.0	(100.0)	–	(100.0)	–
Treasury and Other Govt.	8	62.3	6	28.0	7	46.0	8.6	(7.2)	19.5	(11.8)
Corporate	5	37.7	13	60.4	9	54.0	(40.9)	80.2	(34.9)	71.2
Philippines										
Total	3	100.0	4	100.0	4	100.0	13.6	29.0	15.9	25.5
Government	3	91.8	3	82.6	4	93.4	28.4	31.2	31.1	27.6
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	3	91.8	3	100.0	4	93.4	28.4	31.2	31.1	27.6
Corporate	0	8.2	0.6	17.4	0.3	6.6	(56.9)	4.2	(56.0)	1.3
Singapore										
Total	72	100.0	59	100.0	58	100.0	(6.0)	(19.7)	(1.2)	(18.3)
Government	70	98.0	56	95.5	56	95.9	(5.6)	(21.5)	(0.7)	(20.1)
Central Bank	67	93.1	52	87.4	53	90.7	(2.5)	(21.9)	2.6	(20.5)
Treasury and Other Govt.	3	4.9	5	8.1	3	5.2	(39.7)	(14.6)	(36.6)	(13.1)
Corporate	1	2.0	3	4.5	2	4.1	(14.8)	67.1	(10.4)	70.0
Thailand										
Total	58	100.0	60	100.0	70	100.0	14.6	32.1	17.6	22.4
Government	50	86.8	50	83.0	60	85.0	17.4	29.4	20.4	19.9
Central Bank	36	62.8	35	59.3	54	77.0	48.9	61.8	52.7	49.9
Treasury and Other Govt.	14	24.0	14	23.8	6	8.1	(61.0)	(55.4)	(60.0)	(58.7)
Corporate	8	13.2	10	17.0	11	15.0	1.0	49.4	3.6	38.5

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Table 3 *continued*

	Q1 2015		Q4 2015		Q1 2016		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
							Q1 2016		Q1 2016	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	q-o-q	y-o-y	q-o-q	y-o-y
Viet Nam										
Total	13	100.0	14	100.0	14	100.0	(0.2)	10.5	0.7	6.8
Government	13	99.8	14	99.7	14	99.0	(0.9)	9.6	(0.1)	6.0
Central Bank	8	60.2	7	53.3	9	65.7	22.9	20.4	23.9	16.4
Treasury and Other Govt.	5	39.6	6	46.4	5	33.4	(28.3)	(6.9)	(27.6)	(10.0)
Corporate	0.02	0.2	0.04	0.3	0.1	1.0	275.0	510.7	278.2	490.4
Emerging East Asia										
Total	718	100.0	1,060	100.0	1,052	100.0	(2.2)	51.0	(0.7)	46.5
Government	446	62.0	671	63.3	671	63.8	(1.4)	54.7	0.1	50.7
Central Bank	221	30.8	213	20.1	239	22.7	9.3	9.4	11.8	7.9
Treasury and Other Govt.	224	31.2	457	43.2	433	41.1	(6.4)	100.6	(5.4)	93.0
Corporate	273	38.0	389	36.7	381	36.2	(3.5)	44.7	(2.1)	39.6
Japan										
Total	414	100.0	434	100.0	435	100.0	(6.1)	(1.6)	0.3	5.0
Government	392	94.7	410	94.7	412	94.8	(6.0)	(1.5)	0.4	5.1
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	392	94.7	410	94.7	412	94.8	(6.0)	(1.5)	0.4	5.1
Corporate	22	5.3	23	5.3	23	5.2	(8.7)	(3.4)	(2.5)	3.1

( ) = negative, – = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first 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 March 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); Singapore (Singapore Government Securities and Bloomberg LP); Thailand (Bank of Thailand and ThaiBMA); Viet Nam (Bloomberg LP and Vietnam Bond Market Association); and Japan (Japan Securities Dealers Association).

Indonesia's LCY bond issuance in Q1 2016 reached USD16 billion (IDR212,086 billion), which was up on both a q-o-q and y-o-y basis, led by the sale of central government, central bank, and corporate bonds. The Government of Indonesia maintained its policy of frontloading debt issuance, opting to issue the majority of bonds in the first half of the year. Aside from its regular Treasury auctions, Indonesia raised IDR31.5 trillion from the issuance of retail *sukuk* in March, which marked the largest issuance of such bonds since their first offering in Indonesia in 2009.

Malaysia's Q1 2016 LCY bond issuance leveled off at USD16 billion (MYR62 billion), down from Q4 2015 but up relative to Q1 2015, mainly due to the mixed performance of the corporate bond segment. Government bond issuance fell as Bank Negara Malaysia ceased issuing bonds in Q1 2016.

In the Philippines, LCY bond sales aggregated to USD4 billion (PHP190 billion) in Q1 2016, posting double-digit q-o-q and y-o-y growth that was driven solely by increased Treasury bill and bond issuance.

LCY bond issuance in Singapore in Q1 2016 tallied USD58 billion (SGD79 billion), down from both the previous quarter and the first quarter of the previous year as a result of relatively weak government bond issuance.

In Thailand, LCY bond issuance reached USD70 billion (THB2,473 billion) in Q1 2016, registering double-digit growth on both a q-o-q and y-o-y basis on the back of the Bank of Thailand's relatively large issuance.

LCY bond issuance in Viet Nam in Q1 2016 totaled USD14 billion (VND306,906 billion), down marginally from Q4 2015—given lower bond sales in the government segment with the exception of central bank bonds—but up from Q1 2015 amid positive y-o-y issuance growth in central bank bonds and corporate bonds.

Intraregional LCY bond issuance in emerging East Asia fell 14.8% q-o-q and 28.3% y-o-y to USD2.1 billion in Q1 2016. Three PRC-based issuers raised USD66 million from the sale of HKD-denominated bonds; six issuers from Hong Kong, China sold renminbi-denominated bonds totaling USD1.0 billion; issuance of HKD- and renminbi-denominated bonds amounted to USD512 million from Korean issuers; issuance of HKD- and SGD-denominated bonds totaled USD234 million from Malaysian issuers; and three institutions from Singapore issued HKD-denominated bonds worth a combined USD208 million.

Emerging East Asia's G3 currency bond issuance remained active in January–April.

Emerging East Asia's G3 currency bond issuance in January–April reached USD57.4 billion, or the equivalent of 31% of the full-year 2015 total **(Table 4)**.[7] The US dollar remained the dominant G3 currency of choice for emerging East Asian issuers, accounting for 86.4% of the total. The euro accounted for 13.1% of the total and the Japanese yen for the remaining 0.5%. G3 currency bond issuance in Q1 2016 totaled USD39.3 billion, down 21.2% q-o-q and 14.5% y-o-y, mainly due to lower G3 currency bond sales from PRC-based institutions.

PRC-based issuers were responsible for the largest G3 currency bond issuance in emerging East Asia during the first 4 months of 2016, accounting for USD23.5 billion, or 41.0% of the regional total. The Export–Import Bank of China was the biggest seller of G3 currency bonds among PRC-based issuers at USD3.6 billion, including three USD-denominated bonds totaling USD2.9 billion and one EUR-denominated bond worth EUR650 million. The Export–Import Bank of China also sold the PRC's single largest G3 currency bond in January–April, which was a USD1.25 billion 5-year bond carrying a 2.0% coupon.

G3 currency bond issuers from the Republic of Korea raised USD10.8 billion, spearheaded by the Korea Development Bank, which sold an aggregated USD2.0 billion worth of EUR- and USD-denominated bonds. Korea Development Bank also issued the single largest Korean G3 currency bond in January–April, which was a USD1 billion 10-year tenor carrying a 3.0% coupon.

Hong Kong, China generated USD7.7 billion worth of G3 currency bond sales in January–April, with 67% of the total coming from USD-denominated bonds and 30% from EUR-denominated bonds. The single largest was CK Hutchison's 7-year EUR1.35 billion bond sold in April with a 1.25% coupon.

G3 currency bond issuance in Southeast Asia amounted to USD15.4 billion in January–April, or the equivalent of 42% of the subregion's total in full-year 2015. Indonesian issuers posted USD4.6 billion of G3 currency bond sales, led by the Government of Indonesia, which raised USD2.5 billion from a dual-tranche *sukuk* sale in March. Bank Indonesia's issuance of USD-denominated foreign exchange bills also boosted Indonesia's G3 debt issuance volume in January–April.

Malaysia tallied USD3.7 billion worth of USD-denominated bonds, spearheaded by the government's USD1.5 billion dual-tranche *sukuk* sale in April. The Philippines' only G3 currency bond issuance in January–April was a USD2.0 billion 25-year sovereign bond issued in March with a 3.7% coupon. Singapore's USD4.8 billion of G3 currency bond issuance consisted of 61% in USD-denominated bonds, 39% in EUR-denominated bonds, and 1% in JPY-denominated bonds. Finally, two Thai corporates issued USD-denominated bonds in April totaling USD375 million.

On a monthly basis, emerging East Asian G3 currency bond issuance exhibited a fluctuating pattern in the first 4 months of 2016: USD12.2 billion in January, USD6.9 billion in February, USD20.0 billion in March, and USD18.0 billion in April **(Figure 5)**.

Government bond yield curves fell for most markets in emerging East Asia amid continued weakness in the global economy and the US Federal Reserve's decision to hold off raising interest rates.

The US Federal Reserve held off raising interest rates during its March and April Federal Open Market Committee meetings. The committee noted that while

[7] G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.

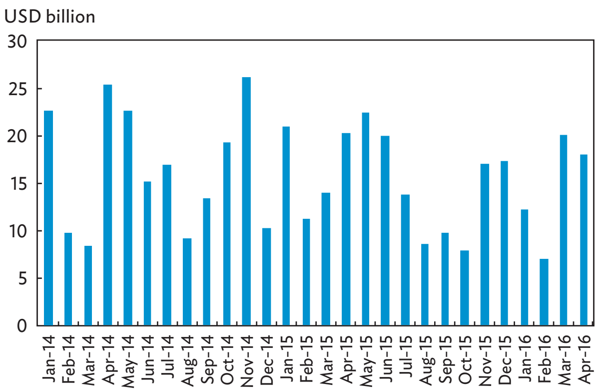
Table 4: G3 Currency Bond Issuance

2015		
Issuer	**Amount (USD million)**	**Issue Date**
China, People's Rep. of	**103,527**	
China Construction Bank 4.65% Perpetual	3,050	16-Dec-15
Sinopec 2.5% 2020	2,500	28-Apr-15
Bank of Communications 5% Perpetual	2,450	29-Jul-15
China Construction Bank 3.875% 2025	2,000	13-May-15
CNOOC Finance 3.5% 2025	2,000	5-May-15
ICBC 4.875% 2025	2,000	21-Sep-15
China Cinda Finance (2015) 4.25% 2025	1,700	23-Apr-15
Evergrande Real Estate Group 9% Perpetual	1,500	29-Dec-15
Others	86,327	
Hong Kong, China	**18,702**	
Shimao Property 8.375% 2022	1,100	10-Feb-15
Hong Kong, China (Sovereign) *Sukuk* 1.894% 2020	1,000	3-Jun-15
Others	16,602	
Indonesia	**15,572**	
Indonesia (Sovereign) 4.75% 2026	2,250	8-Dec-15
Indonesia (Sovereign) 4.125% 2025	2,000	15-Jan-15
Indonesia (Sovereign) 5.125% 2045	2,000	15-Jan-15
Perusahaan Penerbit SBSN *Sukuk* 4.325% 2025	2,000	28-May-15
Indonesia (Sovereign) 3.375% 2025	1,397	30-Jul-15
Others	5,925	
Korea, Rep. of	**23,348**	
Korea Eximbank 2.875% 2025	1,250	21-Jan-15
Korea Eximbank 2.25% 2020	1,000	21-Jan-15
Korea Eximbank 3.25% 2025	1,000	10-Nov-15
Others	20,098	
Lao People's Dem. Rep.	**182**	
Malaysia	**8,496**	
Petronas Capital 3.5% 2025	1,500	18-Mar-15
Petronas Capital 4.5% 2045	1,500	18-Mar-15
Petronas Global *Sukuk* 2.707% 2020	1,250	18-Mar-15
Others	4,246	
Philippines	**4,256**	
Philippines (Sovereign) 3.95% 2040	2,000	20-Jan-15
Royal Capital BV 5.5% Perpetual	450	26-Aug-15
Others	1,806	
Singapore	**8,346**	
Global Logistics Properties 3.875% 2025	1,000	4-Jun-15
DBS Bank 1.625% 2018	1,000	6-Aug-15
BOC Aviation 3% 2020	750	30-Mar-15
Others	5,596	
Thailand	**176**	
Emerging East Asia Total	**182,605**	
Memo Items:		
India	**10,919**	
Bharti Airtel 4.375% 2025	1,000	10-Jun-15
Others	8,919	
Sri Lanka	**3,649**	

1 January–30 April 2016		
Issuer	**Amount (USD million)**	**Issue Date**
China, People's Rep. of	**23,495**	
Export-Import Bank of China 2% 2021	1,250	26-Apr-16
China Development Bank 0.875% 2018	1,145	3-Feb-16
China Development Bank 2.5% 2020	1,000	3-Feb-16
Export-Import Bank of China 2.875% 2026	1,000	26-Apr-16
Bank of China 1.6851% 2019	900	1-Mar-16
Export-Import Bank of China 0.375% 2019	744	26-Apr-16
Ping An Life Insurance 2.375% 2019	700	19-Jan-16
Sunshine Life Insurance 3.15% 2021	700	20-Apr-16
Export-Import Bank of China 1.4361% 2019	640	9-Mar-16
Watagan Mining 8.75% 2025	606	31-Mar-16
Azure Orbit International Finance 2.625% 2021	600	21-Mar-16
Bank of China (Hong Kong) 1.875% 2019	600	1-Mar-16
CRRC 0% 2021	600	5-Feb-16
Others	13,010	
Hong Kong, China	**7,680**	
CK Hutchison 1.25% 2023	1,546	8-Apr-16
China Overseas Finance 0% 2023	1,500	5-Jan-16
OVPH 5.875% Perpetual	1,200	1-Mar-16
AIA Group 4.5% 2046	750	16-Mar-16
CK Hutchison 2% 2028	744	8-Apr-16
Others	1,940	
Indonesia	**4,600**	
Perusahaan Penerbit SBSN *Sukuk* 4.55% 2026	1,750	29-Mar-16
Perusahaan Penerbit SBSN *Sukuk* 3.4% 2021	750	29-Mar-16
Others	2,100	
Korea, Rep. of	**10,762**	
Korea Development Bank 3% 2026	1,000	13-Jan-16
Korea Eximbank 0.375% 2019	859	15-Mar-16
Hyundai Capital America 2.5% 2019	600	18-Mar-16
Others	8,303	
Malaysia	**3,684**	
Malaysia (Sovereign) *Sukuk* 3.179% 2026	1,000	27-Apr-16
Danga Capital 3.035% 2021	750	1-Mar-16
Others	1,934	
Philippines	**2,000**	
Philippines (Sovereign) 3.7% 2041	2,000	1-Mar-16
Singapore	**4,753**	
BOC Aviation 3.875% 2026	750	27-Apr-16
United Overseas Bank 3.5% 2026	700	16-Mar-16
Temasek Financial 0.5% 2022	687	1-Mar-16
Others	2,616	
Thailand	**375**	
Emerging East Asia Total	**57,350**	
Memo Items:		
India	**1,949**	
ICICI Bank 4% 2026	700	18-Mar-16
Others	1,249	
Sri Lanka	**1,166**	

USD = United States dollar.
Notes:
1. Data exclude certificates of deposit.
2. G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.
Source: *AsianBondsOnline* calculations based on data from Bloomberg LP.

Figure 5: G3 Currency Bond Issuance



USD = United States dollar.
Note: G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

the US economy continued to grow, there was also some weakness in the domestic economy, such as business fixed investment, and net exports remained soft due to slower global growth.

The US economy grew at an annualized rate of only 0.8% in Q1 2016, slower than the 1.4% annualized growth rate in Q4 2015. On a y-o-y basis, the eurozone grew 1.7% in Q1 2016, same pace as in the previous quarter. Growth also slightly improved to 0.6% q-o-q in Q1 2016 from 0.4% q-o-q in Q4 2015.

The European Central Bank (ECB) on 10 March reduced its key rates on refinancing operations and its marginal lending facilities by 5 basis points (bps) to 0% and 0.25%, respectively. It reduced by 10 bps the deposit facility to −0.4% and expanded its monthly asset purchase program to EUR80 billion, while also adding investment-grade nonbank EUR-denominated bonds to monthly purchases. In an ECB meeting on 21 April, monetary policy was left unchanged but ECB President Mario Draghi noted that risks to the eurozone's growth outlook remain tilted to the downside.

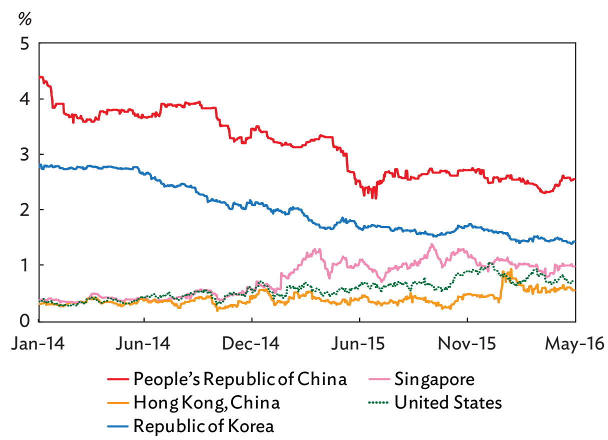
Japan managed to miss a technical recession with annualized GDP growth of 1.9% in Q1 2016.

Global inflation remains weak due to oil prices even though prices have stabilized somewhat and recently approached the USD50 per barrel mark. At the start of the year, Brent crude was priced at USD36.28 per barrel; by 13 May, it had reached USD47.05.

In the US, rising oil prices contributed to the increase in inflation to 1.1% y-o-y in April from 0.9% in March, but this was still below the US Federal Reserve's 2.0% target. The eurozone reported deflation in April, with consumer prices falling 0.2% y-o-y. In Japan, consumer prices fell 0.3% y-o-y in April.

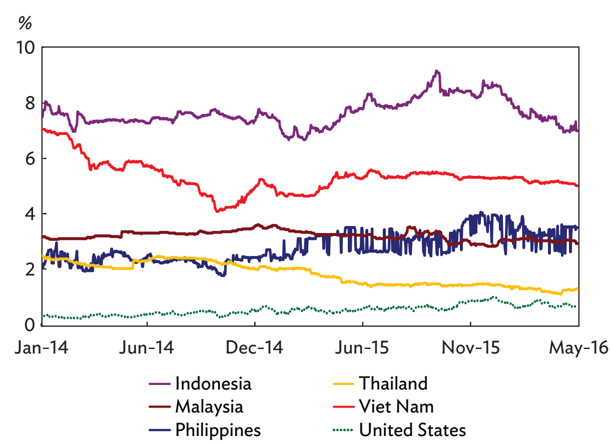
These factors contributed to the decline in bond yields in emerging East Asia. The 2-year rate declined between 1 March and 15 May in most markets, with the exception of the PRC and the Philippines **(Figures 6a and 6b)**. In the PRC, the 2-year yield showed an upward drift. In the cases of Singapore and Hong Kong, China, the fall in yields

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



Note: Data as of 15 May 2016.
Source: Based on data from Bloomberg LP.

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



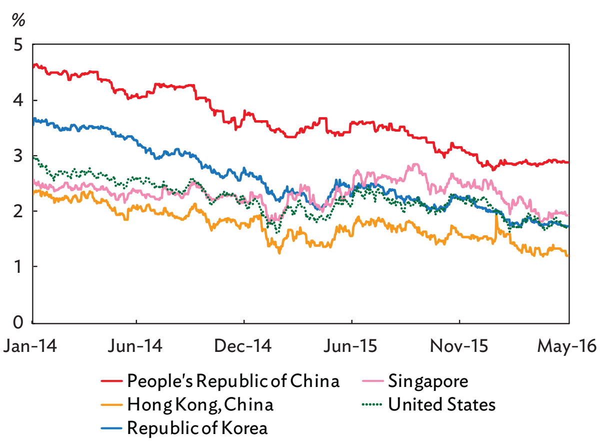
Note: Data as of 15 May 2016.
Source: Based on data from Bloomberg LP.

more closely tracked declines in the US, with yields falling toward the end of March before spiking and then falling again.

The 10-year yield for emerging East Asian markets followed a similar pattern between 1 March and 15 May with the exception (again) of the PRC and the Philippines **(Figures 7a and 7b)**. The PRC's 10-year yield was roughly stable while Philippine yields spiked in March.

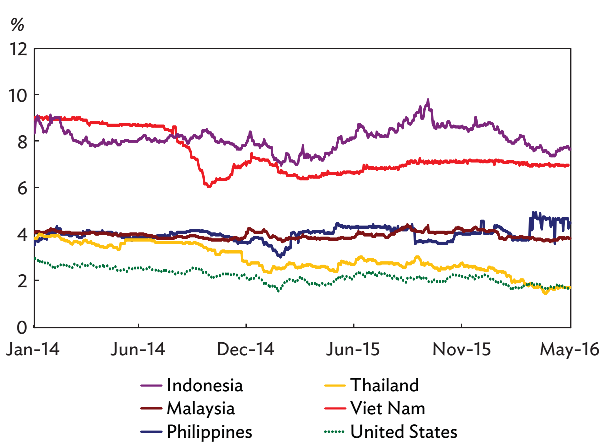
Weak growth in developed economies also spilled over into emerging East Asia. All of the region's economies showed slower GDP growth in Q1 2016 than in the previous quarter except the Philippines and Thailand. The PRC's GDP growth slowed to 6.7% y-o-y in Q1 2016 from 6.8% y-o-y in Q4 2015; Hong Kong, China's GDP growth slowed to 0.8% y-o-y from 1.9% y-o-y; Indonesia's GDP growth slowed to 4.9% y-o-y from 5.0% y-o-y; the Republic of Korea's GDP growth fell to 2.8% y-o-y from 3.1% y-o-y; and Malaysia's GDP growth fell to 4.2% y-o-y from 4.5% y-o-y.

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



Note: Data as of 15 May 2016.
Source: Based on data from Bloomberg LP.

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



Note: Data as of 15 May 2016.
Source: Based on data from Bloomberg LP.

GDP growth accelerated in the Philippines to 6.9% y-o-y in Q1 2016 from 6.5% in Q4 2015. In Thailand, GDP growth rose to 3.2% y-o-y in Q1 2016 from 2.8% in Q4 2015. Singapore's GDP growth remained unchanged in Q1 2016 at 1.8% y-o-y.

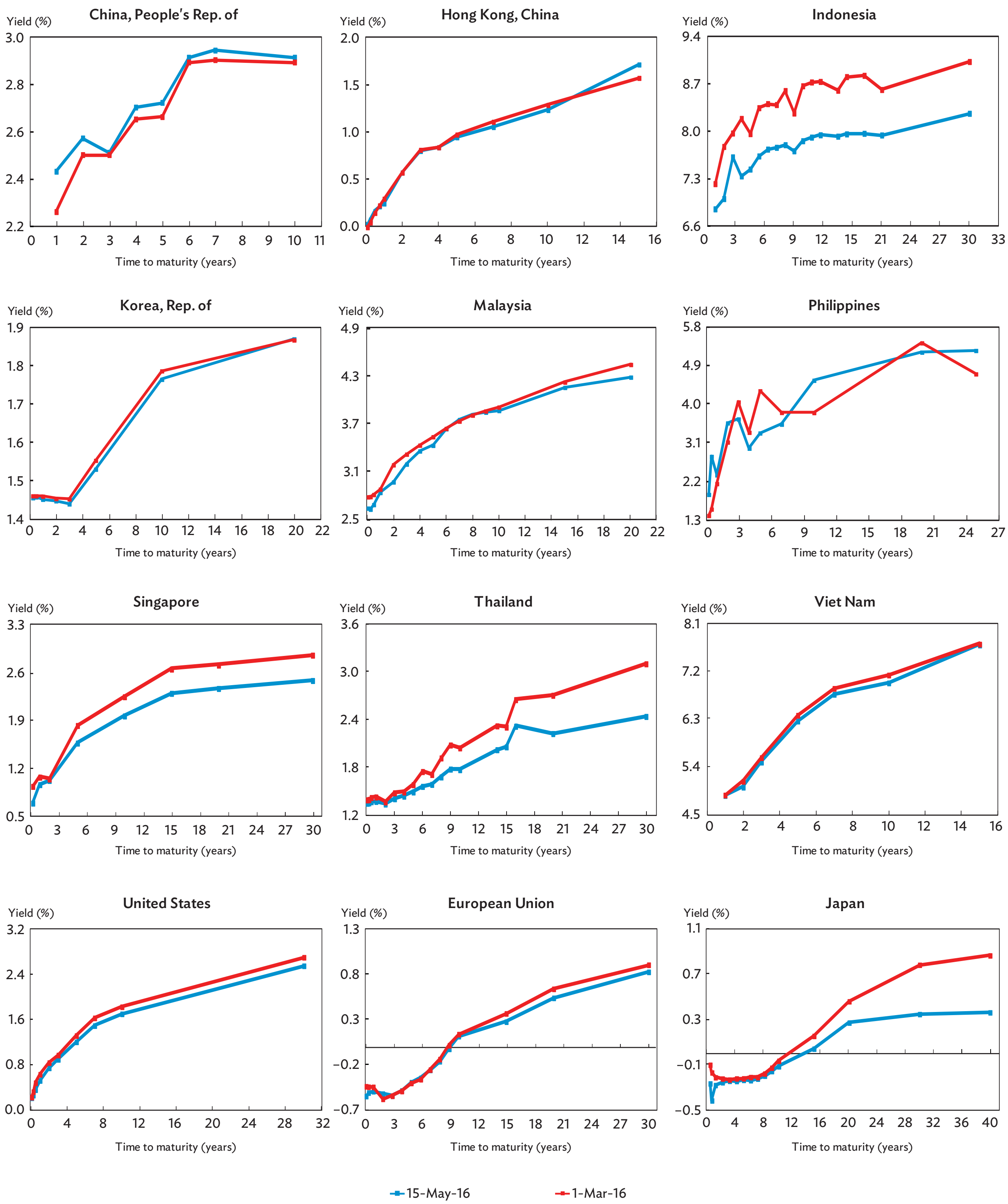
Yield curves for nearly all emerging East Asian markets fell for most tenors between 1 March and 15 May **(Figure 8)**. Despite a slowdown in its economy, the PRC has the distinction of being the only market to show a marked rise in its yield curve during the review period. The rise in the PRC's yield curve reflects a number of concerns ranging from the rapid increase in the supply of local government bonds to defaults in the corporate bond segment.

In the Philippines, yield curve movements were mixed. Yields spiked in March following movements in US Treasuries, but they did not follow when US Treasury yields dropped in April, likely because of uncertainties over the national elections in May.

Weak economic growth and a lack of inflationary pressures have kept inflation contained. However, in some markets, inflation has begun to pick up as oil prices stabilize. Thailand escaped deflation in April as a result of higher oil prices **(Figure 9a)**. On the other hand, Malaysia experienced a significant decline in inflation to 2.1% y-o-y in April from 4.2% y-o-y in February due to lower transportation costs **(Figure 9b)**.

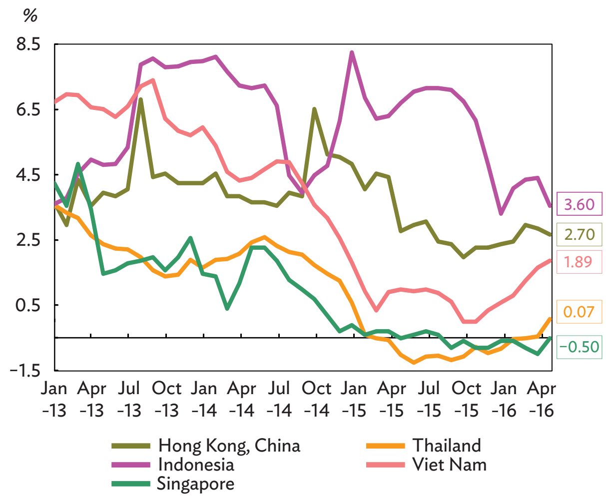
Policy rates were held steady in emerging East Asia except for Indonesia in the first 5 months of 2016 **(Figure 10a)**. Indonesia was the only economy in the region that eased monetary policy more than once in Q1 2016. Bank Indonesia reduced its policy rate by a cumulative 75 bps between January and March to help boost the economy **(Figure 10b)**. Indonesia is also shifting its key policy rate from the 12-month reference rate to the 7-day repurchase rate in August. While the

Figure 8: Benchmark Yield Curves—Local Currency Government Bonds



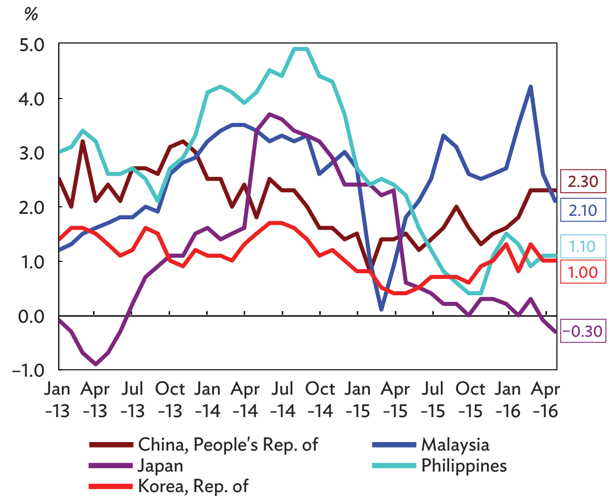
Source: Based on data from Bloomberg LP.

Figure 9a: Headline Inflation Rates



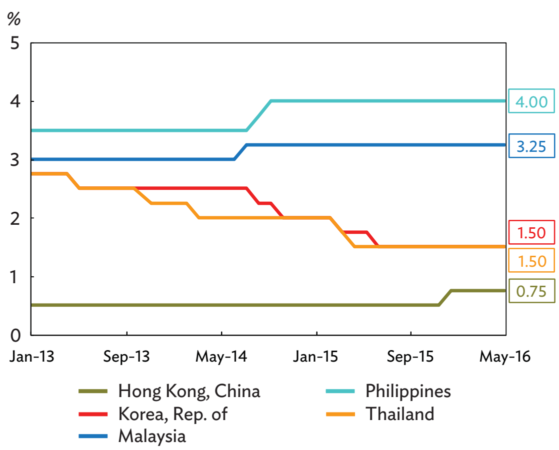
Note: Data as of April 2016.
Source: Based on data from Bloomberg LP.

Figure 9b: Headline Inflation Rates



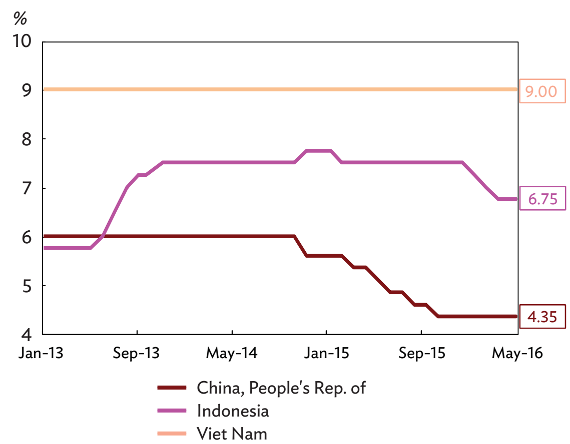
Note: Data as of April 2016.
Source: Based on data from Bloomberg LP.

Figure 10a: Policy Rates



Note: Data as of 15 May 2016.
Source: Based on data from Bloomberg LP.

Figure 10b: Policy Rates



Note: Data as of 15 May 2016.
Source: Based on data from Bloomberg LP.

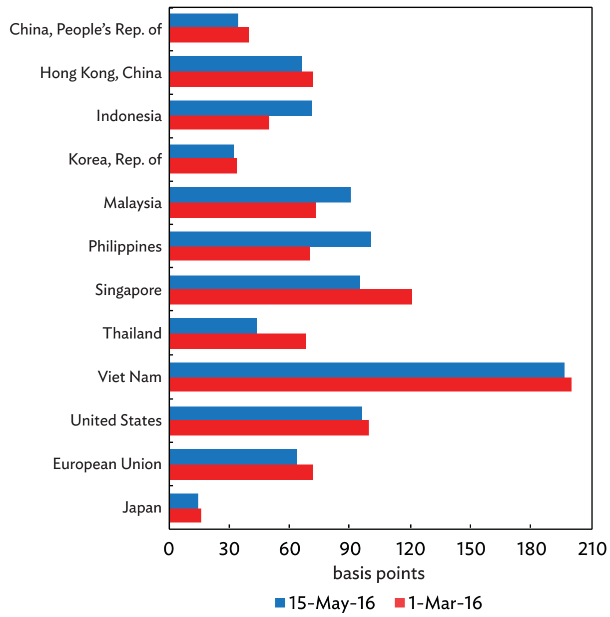
PRC did not adjust policy rates in Q1 2016, it reduced reserve requirement ratios of financial institutions by 50 bps in March.

As a result of movements in yield curves, the 2-year versus 10-year yield spread fell in all emerging East Asian markets except Indonesia, Malaysia, and the Philippines **(Figure 11)**.

The spread between AAA-rated corporate yields and government yields fell for most tenors in the Republic of Korea and Malaysia, but rose in the PRC.

Credit spreads between AAA-rated corporate bonds and government bonds fell for most tenors in the Republic of Korea and Malaysia between 1 March and 15 May

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

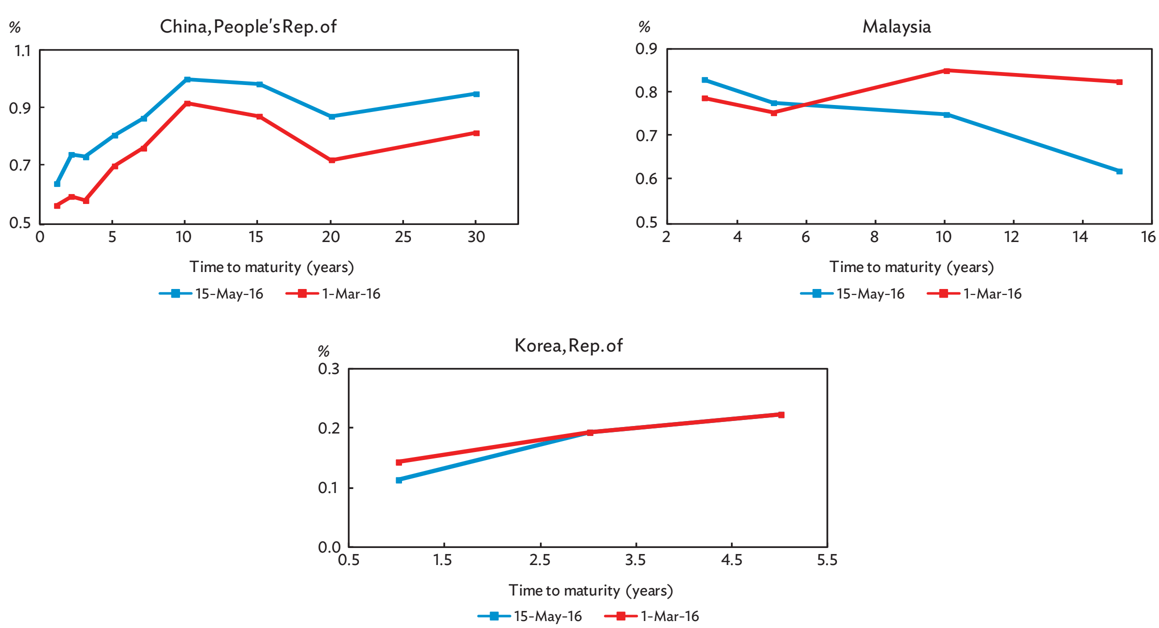


Source: Based on data from Bloomberg LP.

(Figure 12a). In Malaysia, higher oil prices led to improved investor sentiments, which helped strengthen the Malaysian ringgit and reduce risk premiums.

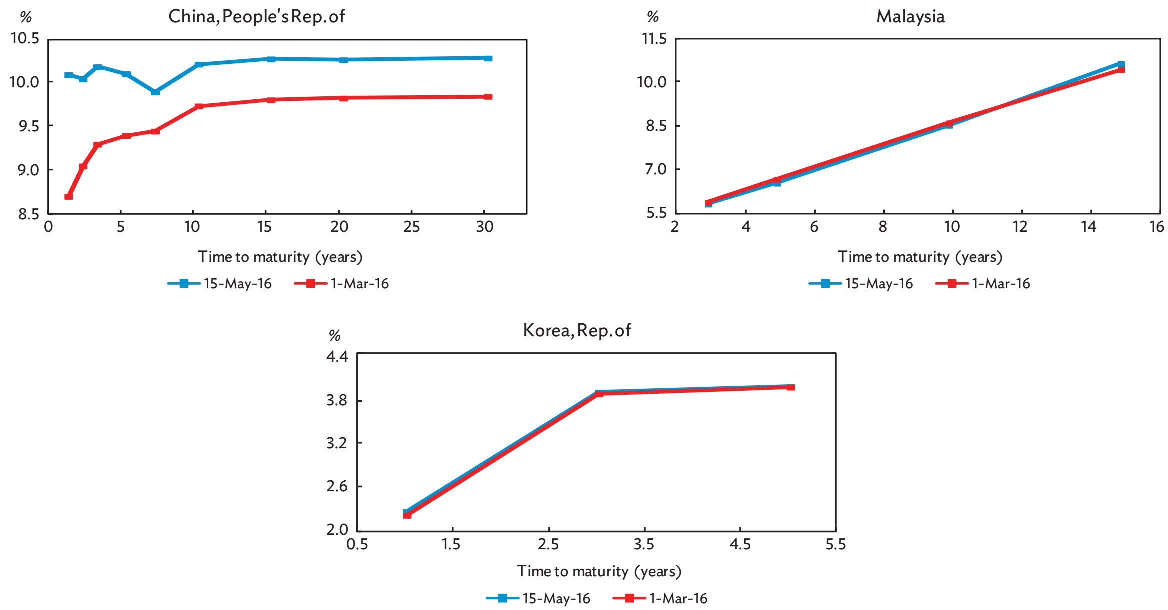
In the PRC, credit spreads rose due to continued concerns about risks in the corporate bond segment as a number of corporate issuers have missed debt payments this year. Lower-rated credit spreads also rose in the PRC between 1 March and 15 May because of the same concerns **(Figure 12b)**. In both the Republic of Korea and Malaysia, lower-rated spreads were little changed.

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



Notes:
1. Credit spreads are obtained by subtracting government yields from corporate indicative yields.
2. For Malaysia, data on corporate bond yields are as of 29 February 2016 and 13 May 2016.
Sources: People's Republic of China (*Wind*), 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 29 February 2016 and 13 May 2016.

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

Policy and Regulatory Developments

People's Republic of China

People's Bank of China Reduces Reserve Requirement Ratios

In March, the People's Bank of China lowered the reserve requirement ratios of financial institutions by 50 basis points (bps). For large banks, the changes resulted in a reserve requirement ratio of 17.0%.

Value-Added Tax Applied to Financial Transactions

On 23 March, the People's Republic of China issued guidelines for the new value-added tax (VAT). Under the plan, the People's Republic of China will shift from levying a business tax on certain transactions and industries to a VAT-based one. The financial industry is one of the sectors affected, with interest income from loans and other income to be subject to a 6.0% VAT instead of a 5.5% business tax.

Hong Kong, China

Tentative Schedule Released for Hong Kong Special Administrative Region Government Bond Issuance in April–September

On 9 March, the Hong Kong Monetary Authority released a tentative schedule for Hong Kong Special Administrative Region Government bond issuance in April through September under the Institutional Bond Issuance Programme. A 3-year HKD4.0 billion bond was issued on 13 April, a 5-year HKD2.5 billion bond was issued on 11 May, a 10-year HKD1.2 billion bond will be issued on 29 June, and a 15-year HKD0.6 billion bond will be issued on 7 September.

Indonesia

Bank Indonesia Allows Islamic Banks to Hedge Foreign Exchange Risk

Bank Indonesia issued a new regulation allowing Islamic banks to engage in hedging activities. The rule, which took effect on 26 February, will allow Islamic banks to hedge their foreign exchange risks. Bank Indonesia expects that the new regulation will contribute to the further development of Islamic-based financial markets.

Bank Indonesia to Shift Policy Rate to 7-Day Repo Rate

On 15 April, Bank Indonesia announced that it would shift its policy rate from the reference rate to the 7-day repo rate. According to the Governor of Bank Indonesia, "the move aims to improve the effectiveness of monetary policy transmission." The move to the new policy rate will take effect on 19 August.

Republic of Korea

Financial Services Commission to Invigorate Financial Advisory Services

The Republic of Korea's Financial Services Commission (FSC) announced in March its plan to amend regulations to invigorate the Republic of Korea's financial advisory services sector. The FSC will amend the Enforcement Decree of the Financial Investment Services and Capital Markets Act in the first half of 2016 in order to create a new registration category for financial advisers covering certain types of financial products—such as derivative-linked securities, funds, and savings products—and to lower their capital requirements to KRW100 million from KRW500 million. Planned amendments to the Financial Investment Services and Capital Markets Act are also aimed at allowing eligible "robo-advisors" to directly render front-office services to their clients. The FSC has plans to (i) propose amendments to the Regulation on Financial Investment Business that will introduce detailed requirements for Independent Financial Advisers, and (ii) create best practice guidelines for financial advisory providers for investor protection purposes.

Financial Services Commission Outlines Corporate Restructuring Plan

The FSC announced its corporate restructuring plan in April, focusing on financially distressed firms and vulnerable sectors. The plan has three tracks that focus on (i) cyclically vulnerable sectors such as the shipbuilding and shipping industries, (ii) main debtor groups and individual companies, and (iii) oversupplied sectors such as the petrochemical and steel industries.

Malaysia

Bank Negara Malaysia and Bank of Thailand Launch Local Currency Settlement Framework

In March, Bank Negara Malaysia and the Bank of Thailand announced the launch of a local currency settlement framework intended to promote bilateral trade between the two economies. The framework will allow Malaysian and Thai businesses greater access to local currency and financial services in appointed banks in both markets. The framework follows a memorandum of understanding signed between the two central banks in August 2015.

Securities Commission Malaysia Introduces Regulatory Framework for Peer-to-Peer Financing Program

In April, the Securities Commission Malaysia introduced the regulatory framework for a peer-to-peer financing (P2P) program, including requirements for the registration of a P2P platform. The P2P electronic platform facilitates access to market-based financing for eligible private and unlisted companies. The framework also outlines the duties and responsibilities of a P2P operator, as well as the types of issuers and investors who can participate in the platform.

Philippines

The Philippines and Malaysia Sign Bilateral Agreement under the Association of Southeast Asian Nations Banking Integration Framework

In March, the Bangko Sentral ng Pilipinas (BSP) and Bank Negara Malaysia signed a bilateral agreement under the Association of Southeast Asian Nations (ASEAN) Banking Integration Framework that provides guidelines for the entry of Qualified ASEAN Banks into the Philippine and Malaysian markets.

Bangko Sentral ng Pilipinas Adopts Basel III Liquidity Coverage Framework

In March, the BSP's Monetary Board approved the liquidity coverage ratio framework developed under Basel III, which requires Philippine universal and commercial banks, as well as foreign bank branches in the Philippines, to hold a sufficient stock of high-quality liquid assets in order to enhance their liquidity positions.

Bangko Sentral ng Pilipinas Implements Interest Rate Corridor System

In May, the BSP announced that it will formally implement an interest rate corridor system starting 3 June. The BSP stated that this shift in its monetary operations was made to improve the transmission of monetary policy. Through this system, short-term interest rates will be guided toward the overnight reverse repurchase rate, which is the BSP's policy interest rate.

Singapore

Monetary Authority of Singapore and the People's Bank of China Renew Bilateral Currency Swap Agreement

In March, the Monetary Authority of Singapore and the People's Bank of China renewed their bilateral currency swap arrangements for an additional 3 years. The arrangement provides up to CNY300 billion of liquidity for eligible financial institutions operating in Singapore.

Monetary Authority of Singapore Allows Corporate Bond Issuers to Tap Retail Market

In May, the Monetary Authority of Singapore issued two regulations allowing corporate bond issuers to tap the retail market. Corporate issuers may issue bonds through the Bond Seasoning Framework, which allows firms who met the criteria set by the Singapore Exchange to sell bonds to retail investors. Wholesale bonds issued by these issuers may be re-denominated in smaller lots and offered for sale to retail investors through the secondary market 6 months after the listing of the bonds. Issuers may offer additional bonds targeted for retail investors without a prospectus.

Corporate issuers may also issue bonds through the Exempt Bond Issuer Framework, which allow issuers with higher eligibility criteria under the Bond Seasoning Framework to offer bonds to retail investors without a prospectus.

As an incentive, the Ministry for Finance will grant tax concessions for eligible issuers who issue bonds under these frameworks.

Thailand

Securities and Exchange Commission and the Association of Investment Management Companies to Prepare Institutional Investor Code

In March, the Securities and Exchange Commission, Thailand and the Association of Investment Management Companies announced the preparation of the Thailand Institutional Investor Code. Through the code, the Securities and Exchange Commission, Thailand and the Association of Investment Management Companies aim to promote responsible investment among institutional investors through the establishment of policies based on corporate governance principles. The code will also provide guidelines for institutional investors in monitoring the operations of the companies they have invested in to protect the interest of their clients and the investment management industry as a whole.

Viet Nam

Ha Noi Stock Exchange and Viet Nam Securities Depository to Test Run Derivatives Market

In March, Ha Noi Stock Exchange (HNX) and the Viet Nam Securities Depository announced that members may participate in the test run of a derivatives market in September and October before the official launch by the end of the year. According to HNX, two products would initially be offered: future contracts for share indexes and government bonds with a 5-year maturity. The trading of derivatives contracts will be conducted through HNX and clearing will take place through the Viet Nam Securities Depository.

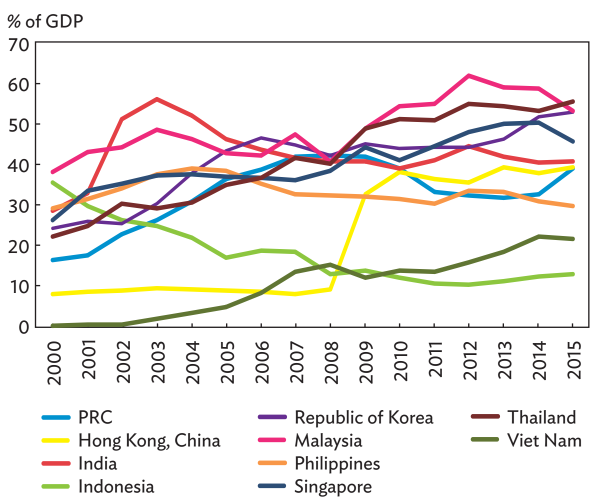
Drivers of Sovereign Bond Yields in Emerging Asia

Introduction

Bond markets have an important role to play in building a diversified financial system and promoting long-term financing to support growth. In emerging Asia, debt securities issued in local currency have become a key source of government financing **(Figure 13)**.[7] While economies in the region are increasingly relying on local currency debt markets for long-term financing, the interest rates that governments pay have varied widely across economies and time.

Emerging Asian domestic bond yields showed differing patterns across the region over the period 2000–2015. **Figure 14** presents trends in 5-year sovereign domestic yields of selected economies in comparison with United States (US) bond yields. US yields have trended down since the 2008–2009 global financial crisis and have remained below precrisis levels amid uncertain growth prospects. While we observe some correlation between domestic yields and US yields, we also observe different trends across the region.

Figure 13: Local Currency Government Bonds



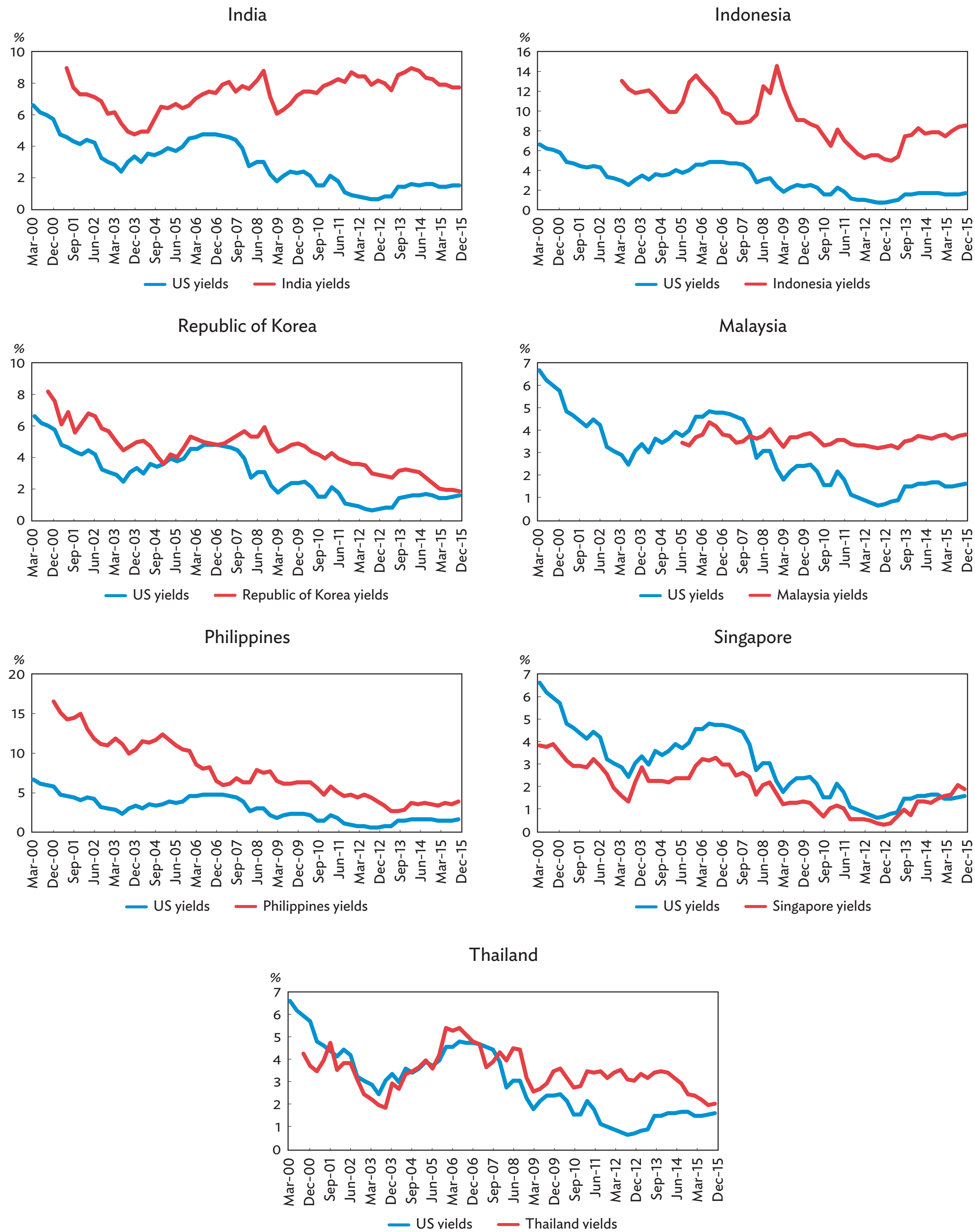
PRC = People's Republic of China.
Sources: *AsianBondsOnline* and Bloomberg LP.

Bond yields in Indonesia, the Republic of Korea, the Philippines, Singapore, and Thailand have trended down since the global financial crisis, similar to US bond yields. The premium vis-à-vis US yields also fell for both the Republic of Korea and the Philippines. In Singapore, bond yields were below those of the US in most years during 2000–2014, only exceeding US yields in 2015. Indonesian bond yields declined after reaching a peak during the 2008–2009 global financial crisis, and while the premium over US bonds declined between 2008 and 2012, it increased slightly after that. Malaysian bond yields were broadly stable during the period. Prior to the global financial crisis, the premium on US bonds vis-à-vis Malaysian bonds was negative. Following the decline in US bond yields in 2008, a positive premium emerged as Malaysian bond yields barely changed. Bond yields in India and Thailand showed a more cyclical pattern than was observed for Malaysia, including a decline in yields in both economies since 2014. However, as with Malaysia, there was no overall trend observed during the review period. The different movements in yields across the region indicate economy-specific macroeconomic conditions that affect yield patterns.

Movements in bond yields across the region can be attributed both to fundamental conditions in domestic economies and the influence of global factors. Since bond markets can be an important source of financing, it is necessary to examine the factors that promote their development. We place particular emphasis on local currency bond markets as an important funding source for domestic investors; a deep bond market gives them access to long-term financing that avoids currency mismatch issues. This section analyzes the role of macroeconomic factors and policies affecting bond market development in the region, with particular focus on how such factors affect local currency sovereign bond yields. The literature suggests that economic growth, inflation, fiscal conditions and other domestic factors, and global influences affect domestic bond yields. Better information on the factors that affect the cost of government borrowing can help economies more

[7] In this chapter, emerging Asia comprises India, Indonesia, the Republic of Korea, Malaysia, the Philippines, Singapore, and Thailand.

Figure 14: 5-Year Bond Yields



US = United States.
Source: Quarterly averages based on daily data from Bloomberg LP.

effectively manage the impacts of those factors that they can control. Further, predicting the impacts of global factors, over which emerging economies in most cases have no direct influence, can help economies better prepare for adverse global conditions.

The next section discusses macroeconomic factors that affect bond yields and how emerging Asian economies fare on key indicators. The third section presents an empirical analysis of the impact of macroeconomic factors on bond yields using quantitative models. The last section provides concluding observations and discusses the policy implications.

Macroeconomic Factors and Bond Yields

Economic Growth Performance

Gross domestic product (GDP) growth measures economic activity and is the most common indicator of the health of an economy. An expanding economy requires more funds to support growth and can therefore increase yields because of the increased demand for borrowed funds. On the other hand, to the extent that yields contain risk information, such that riskier assets are higher-yielding, strong economic growth can increase investor confidence and reduce yields.

GDP growth rates across economies in the region have varied since the 2008–2009 global financial crisis. Except for India, all experienced a decline in growth rates in the first quarter (Q1) of 2009 amid the global fallout from the crisis. In the Republic of Korea, Malaysia, Singapore, and Thailand, GDP even contracted **(Figure 15)**. The economies displayed different recovery rates and patterns after Q1 2009. Indonesia quickly recovered to precrisis growth levels but has experienced a downward trend in growth since 2011, which appears to have a negative correlation with yields. Growth in the Republic of Korea recovered sharply in 2010 but has since slowed and is exhibiting a cyclical pattern at levels below precrisis rates. As growth remains subdued, yields continue to trend down. Growth in the Philippines has rebounded well since 2011 when domestic political issues were a concern for the economy. The improved economic conditions supported the decline in yields as some risks decrease with output growth. Malaysian GDP growth has also been robust, rebounding to 10.2% in Q1 2010 after declining in Q1 2009 and then stabilizing at close to 6.0% in 2010–2015. Along with stable growth, yields have also been quite steady at around 3.0%–4.0%. Thailand has faced domestic political concerns that are taking a toll on output performance as shown by large swings in growth. India experienced a strong growth performance even during the period immediately following global financial turmoil in 2008–2009. Since 2012, however, economic growth has shifted to a lower range of 2.0%–6.0% from the 6.0%–10.0% growth experienced from 2003–2011.

Inflation

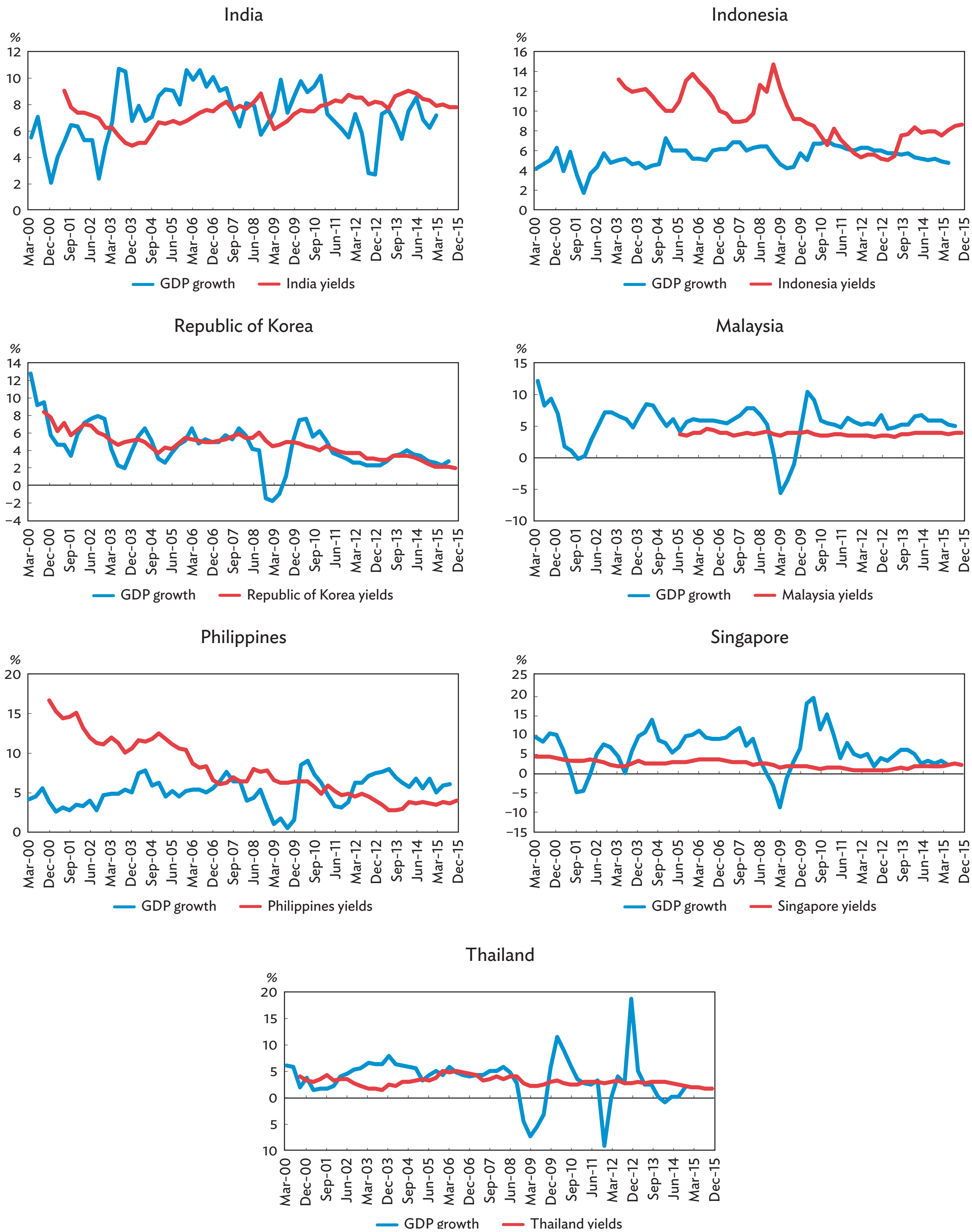
Inflation is a key indicator of macroeconomic stability and in most of the related literature is seen as a significant factor in determining yields. Persistently high inflation can affect investment decisions as it can erode investor confidence and increase yields. It also has implications for consumer spending; a huge loss in the value of money due to high inflation can breed widespread discontent and pose a direct threat to macroeconomic stability. On the other hand, moderate inflation that comes with economic expansion can improve investor confidence and increase investor appetite for higher yielding assets pulling down bond prices or equivalently increasing yields.

While headline inflation is often measured by changes in the Consumer Price Index (CPI), there is growing interest in the Producer Price Index (PPI), owing to the emergence of PPI deflation in recent years (ADB 2016). It is worthwhile to examine the links to bond yields of both measures of inflation given their diverging patterns and drivers. As seen in **Figure 16**, consumer prices in the region are less prone to volatility than producer prices, which may be due to slow adjustments in taxes, subsidies, and distribution costs. What is quite evident in recent years is slowing inflation, and even deflation, especially in terms of the PPI. Inflationary pressures have been tempered by the recent decline in global commodity prices. While the drop in prices has been mainly due to supply shocks, weaker demand has also played a role. Feeble economic conditions have contributed to subdued inflation in some economies and to deflation in others. Deflation in both consumer and producer prices accompanied slower GDP growth in Singapore in 2015. In the Republic of Korea, growth slowed in 2015 amid deeper producer price deflation and milder inflation.

Other Domestic Factors

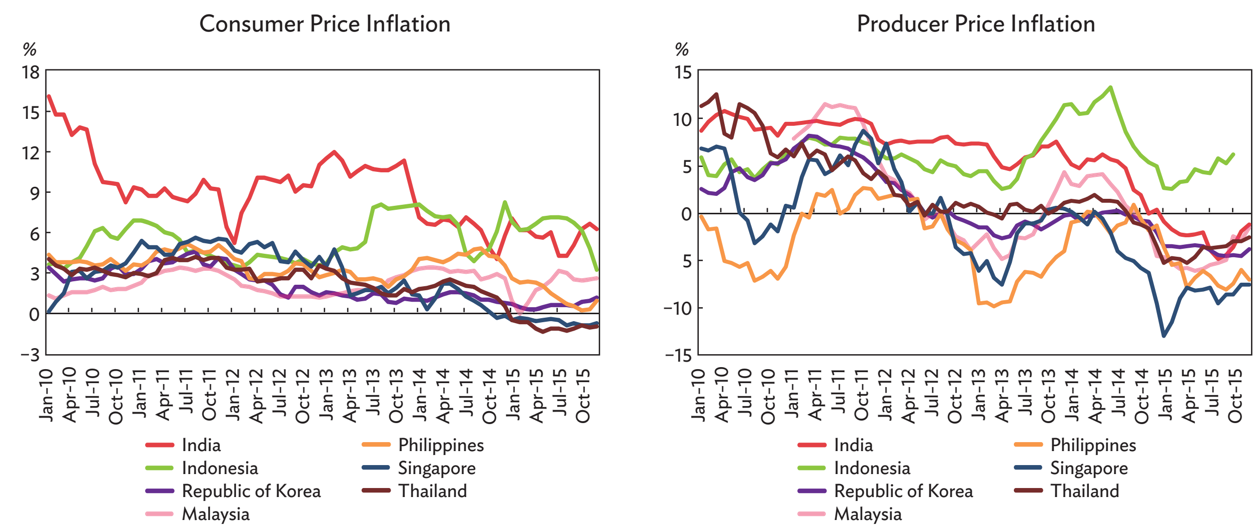
Domestic bond yields are closely linked to an economy's fiscal position. Economies with healthy finances tend to have lower bond yields, while those with higher debt

Figure 15: GDP Growth and 5-Year Bond Yields



GDP = gross domestic product.
Sources: CEIC Data for GDP growth; bond yield quarterly averages based on daily data from Bloomberg LP.

Figure 16: Consumer and Producer Price Inflation



Source: CEIC Data.

have higher bond yields (Jaramillo and Weber 2012). Debt buildup can result in unsustainable debt levels and increased default risk, leading to a loss of investor confidence and higher sovereign bond yields.

Sovereign bond yields may also be affected by changes in money market rates. The expectation hypothesis holds that the yield on long-term bonds (long rates) is the expected future yield on short-term bonds plus a term premium to compensate for risks associated with long positions. The long rates must carry a premium over short rates, such that higher short-term interest rates are expected to increase yields. Money market rates are also an indicator of the monetary policy stance, with higher short-term rates leading to tighter liquidity, which reduces the availability of credit and pushes yields up.

Global Factors

Global factors are important in explaining movements in sovereign bond yields in emerging markets. One of the most significant developments in the region's bond markets over the past few years is rising foreign investor holdings of local currency bonds. This mirrors an overall trend among international institutional investors toward greater exposure to local currency instruments. Greater foreign participation can benefit domestic bond markets by enabling a broader investor base and contributing toward more liquid and efficient markets, which in turn is important in driving down borrowing costs. However, there are risks that increased foreign participation can increase volatility in bond markets, as heightened global risk aversion can lead to sudden shifts in investor sentiment (Ebeke and Lu 2014). In such cases, movements in bond yields may be determined more by shifts in market sentiment rather than changes in fundamentals. Alternatively, the impact of macroeconomic variables on yields may be affected by global risk considerations. It is possible that a large part of movements in emerging market spreads are due to outside factors such as global liquidity and risk appetite (Gonzales–Rozada and Levy–Yeyati 2008). Further, volatility in global bond yields can be transmitted to domestic bond yields (Azis et al. 2013).

As shown in Figure 14, low world interest rates, as proxied by US bond yields, have been evident in recent years, indicating favorable liquidity conditions. A low interest rate environment has helped drive foreign investors in search of higher yields into emerging markets. Increased demand in emerging bond markets has in turn helped drive movements in the region's bond yields.

What is Driving Bond Yields? Empirical Evidence

Demand and supply for bonds are influenced by bond yields and vice versa. Higher bond yields increase the quantity of bonds demanded, while bond issuances decrease with increased borrowing costs (Ciarlone, Pisellin, and Trebeschi 2007). From a macroeconomic policy standpoint, keeping yields low is important to encourage real investment and promote growth. And while higher yields may increase bond demand, portfolio choice theory suggests that investor preference for risks is an important consideration in portfolio decisions. To the extent that yields in emerging markets are higher than those in more developed markets because of associated market risks, higher bond yields may not always increase bond market participation. Lower bond yields resulting from an improved risk profile may also encourage bond market participation.

Several term structure models on the macroeconomic links to yields have been discussed in the literature, including the pioneering work of Ang and Piazessi (2003), in which measures of real economic activity and inflation are included as determinants of the term structure alongside unobservable state variables used in finance literature. Most other literature is a variant of their methodology with additional macroeconomic variables. Succeeding work in the macrofinance literature imposed a structural specification of macroeconomic conditions in yield curve models (see, for example, Hordahl, Tristani, and Vestin 2002; Rudebusch and Wu 2004; and Bekaert, Cho, and Moreno 2005).

There have been some studies that examined macrofinance linkages using sovereign bond yields of a particular maturity rather than the term structure. Poghosyan (2012) looks into the macroeconomic determinants of sovereign bond yields and tests whether there is a long-run relationship between yields and debt, as well as between yields and output growth. The study models changes in sovereign bond yields using as determinants potential output and government debt in the long-run and some short-run determinants including inflation, changes in debt, monetary and fiscal policy variables. Similar to Poghosyan (2012), Pham (2014) distinguishes between the long-run and short-run determinants of yields in examining sovereign bond yields in several emerging Asian economies.

To formally test the factors that are known to drive bond yields, we do not model the yield curve in contrast to a number of macrofinance studies. This is due to the absence of a meaningful yield curve for most economies in the region where bond markets remain thin, particularly for longer-term maturities. Instead, we follow the approach taken by other studies that rely on a particular maturity to model macrofinance linkages rather than the yield curve (see, for example, Poghosyan 2012 and Jaramillo and Weber 2012). We examine the factors affecting yields on 5-year bonds, being one of the more actively traded issues in the region. The framework used in Matovu (2007) is extended to include fiscal sector variables.

Following the early literature in yield curve–macroeconomic analysis, we identify economic indicators that may influence yield movements. A base model is initially introduced where the macroeconomic variables included to explain sovereign yields are GDP growth, inflation, and short-term interest rates. GDP growth is the main measure of economic performance, and thus is expected to significantly influence bond yields. Inflation is commonly used in the literature as an indicator of macroeconomic stability. Money market rates are added to account for the impact of short-term interest rates on bond yields.

The model rests on some basic assumptions to identify the vector autoregression (VAR) ordering to be used for extracting the impulse responses. Output growth is seen to have a contemporaneous effect on other variables in the system. Inflation may have a contemporaneous effect on interest rates because interest rates are a policy tool used to control inflation. The money market rate is seen to influence market rates on other loans, including bond notes. The base model is then extended to allow for a measure of fiscal health and to account for external influences. Thus, the expanded model will have the base model variables: GDP growth, inflation, and short-term interest rates, plus fiscal and global factors.[8] Debt accumulation is added as an indicator of the health of the public sector, while the 5-year US Treasury bond yield is included to account for external factor effects.

A panel VAR is estimated for a pool of nine Asian economies in both the base model and the expanded system. Both CPI and PPI are tested to examine which of the two price indexes is more relevant to yield movements. The economies included in the panel VAR are India, Indonesia, the Republic of Korea, Malaysia, Pakistan, the Philippines, Singapore, Sri Lanka, and

[8] See Table A.1 for the list of variables and their description.

Thailand.[9] An unbalanced panel from Q1 2000 to Q4 2015 is estimated.[10]

To account for economy differences, separate models were estimated for each economy. Following the panel VAR specification, the variables were tested for endogeneity to determine the adequacy of a single–equation specification.[11] Single-equation estimates use the same yield drivers as the VAR model:

$$Yields = \beta 0 + \beta 1r + \beta 2debt + \beta 3\pi + \beta 4USyields + \beta 5y + \varepsilon$$

where r is short-term interest rate, debt is growth in government debt, π is CPI or PPI inflation, $USyields$ is the 5-year US Treasury bond yield, and y is GDP growth. Each individual economy specification differs depending on the significant yield drivers and yield dynamics. For variables that are integrated at order 1 [I(1)], cointegration tests were performed to validate whether there are long-run relationships between the variables and, if so, appropriately model for such. Only India's bond yields were shown to have cointegrating relationships with the yield factors. For estimation purposes, we transform I(1) variables into I(0) if there are no cointegrating relationships. We obtain first differences of the I(1) variables to transform these into I(0) as is standard in time-series literature, thus we have quarter-on-quarter inflation rates and debt accumulation, and quarter-on-quarter changes in money market rates and yields.

Evidence across Economies

The impulse response functions from a panel VAR of nine economies show that the main drivers of yields are inflation (either CPI or PPI), money market rates, and US yields. Output growth and debt accumulation have an indirect effect on yields channeled through inflation. **Table 5** presents a summary of impulse responses obtained from the VAR that show what macroeconomic variables affect yields either directly or through pass-through effects on other variables that directly affect yields. The left panel shows the impulse responses generated using CPI, while the right panel shows the results from the VAR estimates using PPI. The impulse responses of yields from shocks to macroeconomic factors are shown in **Figure 17**.

Table 5: Impulse Response Matrix

Base Model

		Impulse			
		Yields	CPI	MMR	GDP
Response	Yields		x	x	
	CPI				x
	MMR		x		x
	GDP				

		Impulse			
		Yields	PPI	MMR	GDP
Response	Yields		x	x	
	PPI	x			x
	MMR		x		x
	GDP				

Expanded Model

		Impulse					
		Yields	CPI	MMR	GDP	Debt	US yields
Response	Yields		x	x			x
	CPI				x		
	MMR				x		x
	GDP						
	Debt	x					
	US yields						

		Impulse					
		Yields	PPI	MMR	GDP	Debt	US yields
Response	Yields		x	x			x
	PPI	x			x	x	
	MMR		x		x		x
	GDP						
	Debt	x					
	US yields						

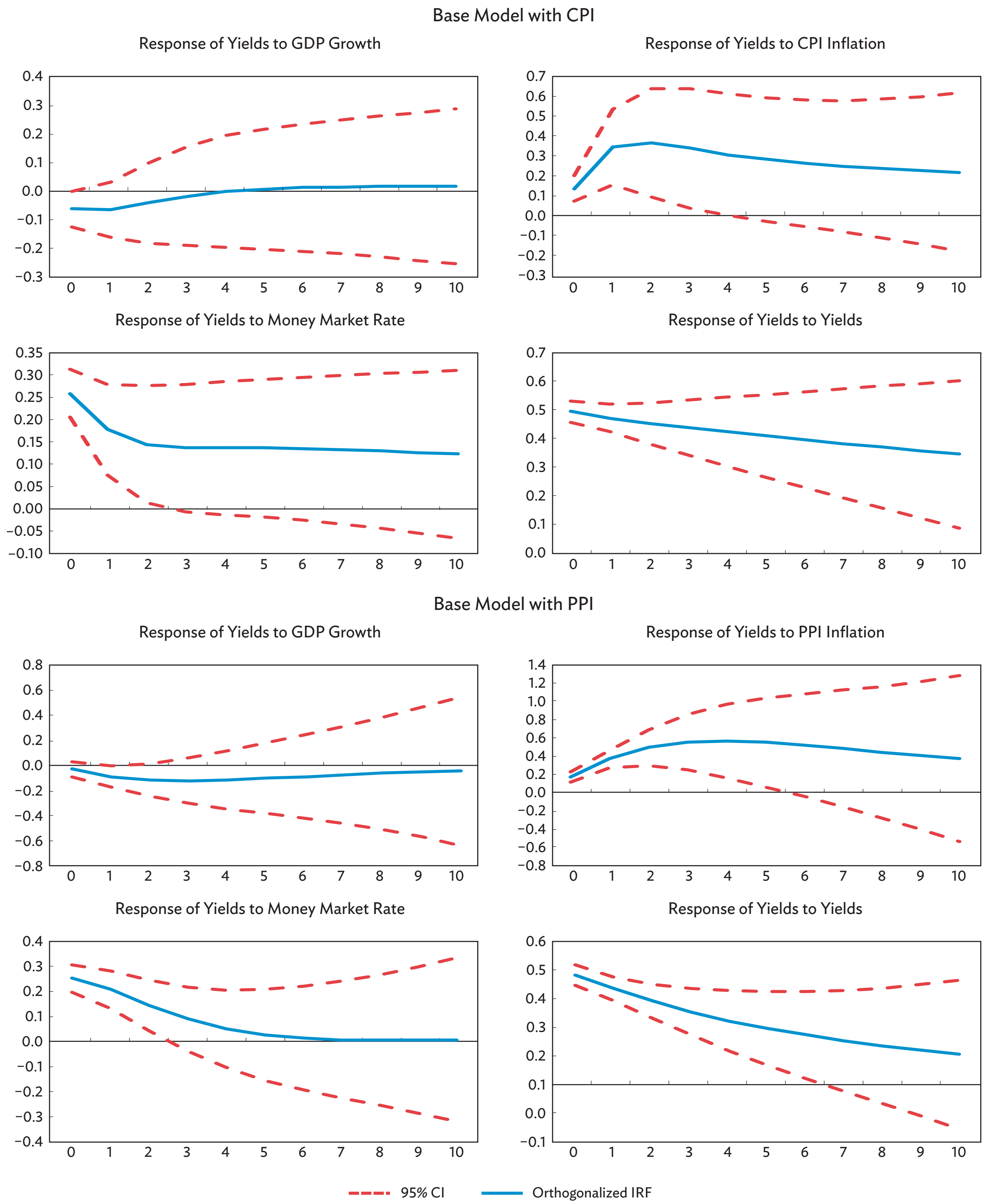
CPI = Consumer Price Index, GDP = gross domestic product, MMR = money market rates, PPI = Producer Price Index, US = United States.
Source: ADB estimates.

[9] These economies were included in the analysis primarily based on the availability of quarterly debt data. See Table A.2 for the period covered for each economy.

[10] To implement the panel VAR we use the Stata package on panel VAR estimation created by Abrigo and Love (2015).

[11] Granger causality tests on the variables in the panel VAR are implemented and if yields do not Granger cause any of its determinants, for parsimony, single equations model are estimated.

Figure 17: Panel Vector Auto-Regression Impulse Response Functions



CI = Confidence Interval, CPI = Consumer Price Index, GDP = gross domestic product, IRF = Impulse Response Function, PPI = Producer Price Index.

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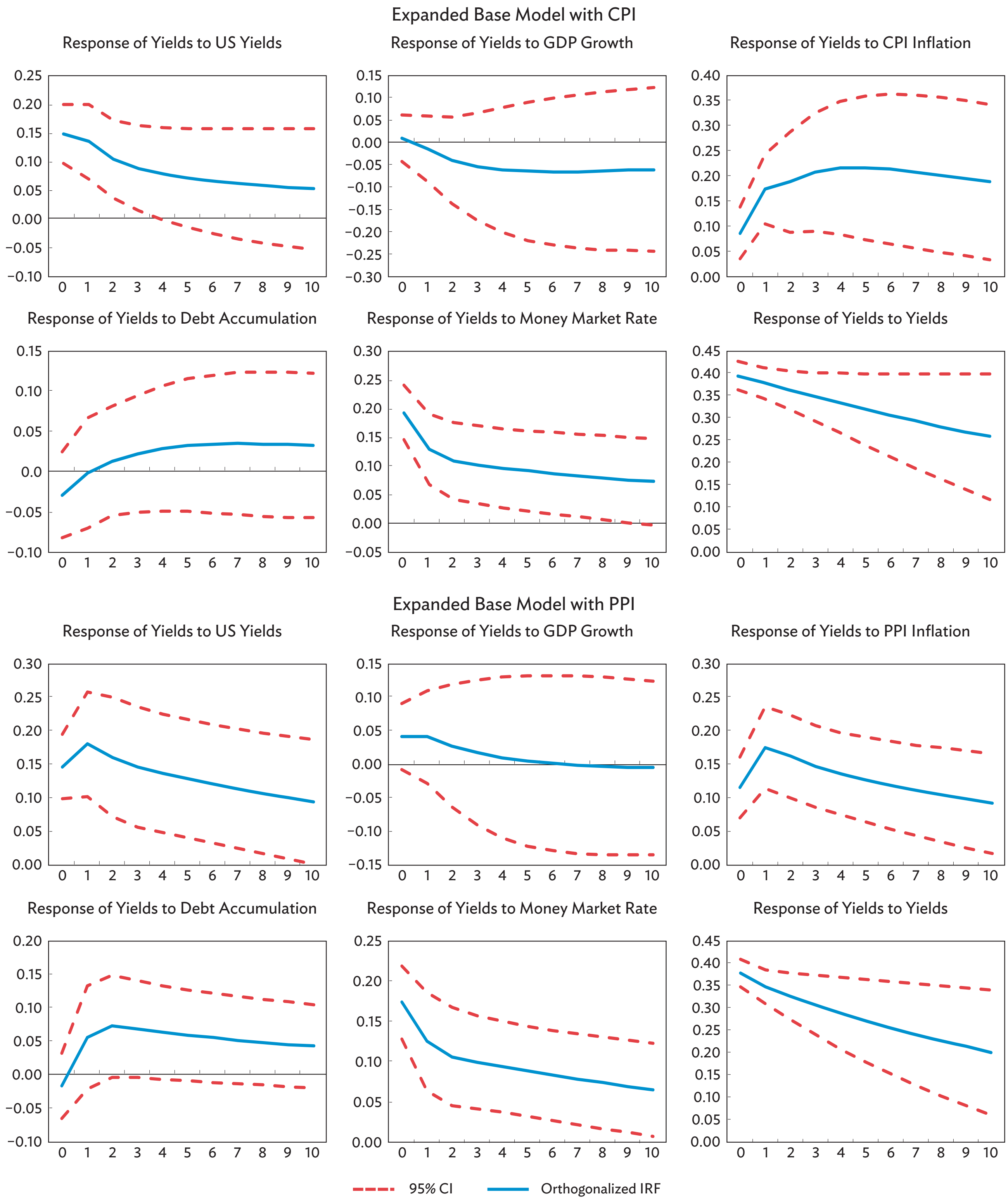
Figure 17: Panel Vector Auto-Regression Impulse Response Functions *continued*



CI = Confidence Interval, CPI = Consumer Price Index, GDP = gross domestic product, IRF = Impulse Response Function, PPI = Producer Price Index, US = United States.
Source: ADB estimates.

The results are in line with what is established in macrofinance literature and highlight the importance of macroeconomic stability in promoting local currency bond markets. The link between money market rates and yields is well documented in the literature and its positive impulse effect on yields is as predicted. Money market rates are seen as an indicator of the policy stance of monetary authorities, as well as an instrument to control inflation. Monetary tightening reduces liquidity in the credit market and pushes general interest rates and bond yields higher. With decreased liquidity, demand for bonds among investors may decrease and lead to reduced bond prices and increased yields. Bond issuers may then be willing to quote higher yields to gain access to credit.

The positive impulse effect of inflation on yields is expected. Higher inflation erodes real returns and therefore can push yields up; it also is an indicator of macroeconomic stability that can affect investor confidence and demand for financial assets. PPI inflation also has an impulse effect on yields that may be related to production cost issues as higher yields push up costs for producers. To the extent that higher yields are also related to increased economic activity and increased demand for funds, higher yields can be associated with rising producer costs. Shocks to CPI inflation, on the other hand, do not affect yields.

The effect of US yields on domestic bond yields and on money market rates indicate that bond markets in emerging economies are integrated with the domestic markets since global market sentiments affect the domestic bond market. Likewise, world economic conditions that affect global yields also affect domestic economic outlooks and investor confidence.

Debt is affected by yields, which could indicate that yields are driven by the demand for funds since higher issuance (bond supply) reduces bond prices and increases yields. This is also shown by how output growth indirectly affects yields through prices and money market rates.

Debt has an indirect effect on yields through PPI inflation. The relationship between PPI inflation and debt could be related to production costs, and this is also shown by the impulse effect of yields on PPI inflation. On the other hand, debt does not have an impulse effect on CPI inflation and therefore has no indirect effect on yields through this variable. This suggests that debt is more driven by production concerns and therefore can affect PPI more than CPI inflation.

Individual Economy Estimations

For individual economy estimates, we consider a parsimonious model given the small sample size. We test whether a single-equation specification is sufficient to model yield determinants and whether there is endogeneity in the factors that need to be modeled in the VAR system. In cases where a system needs to be specified, we identify which variables to include. We also take notice of what price variable is more relevant for a particular economy.

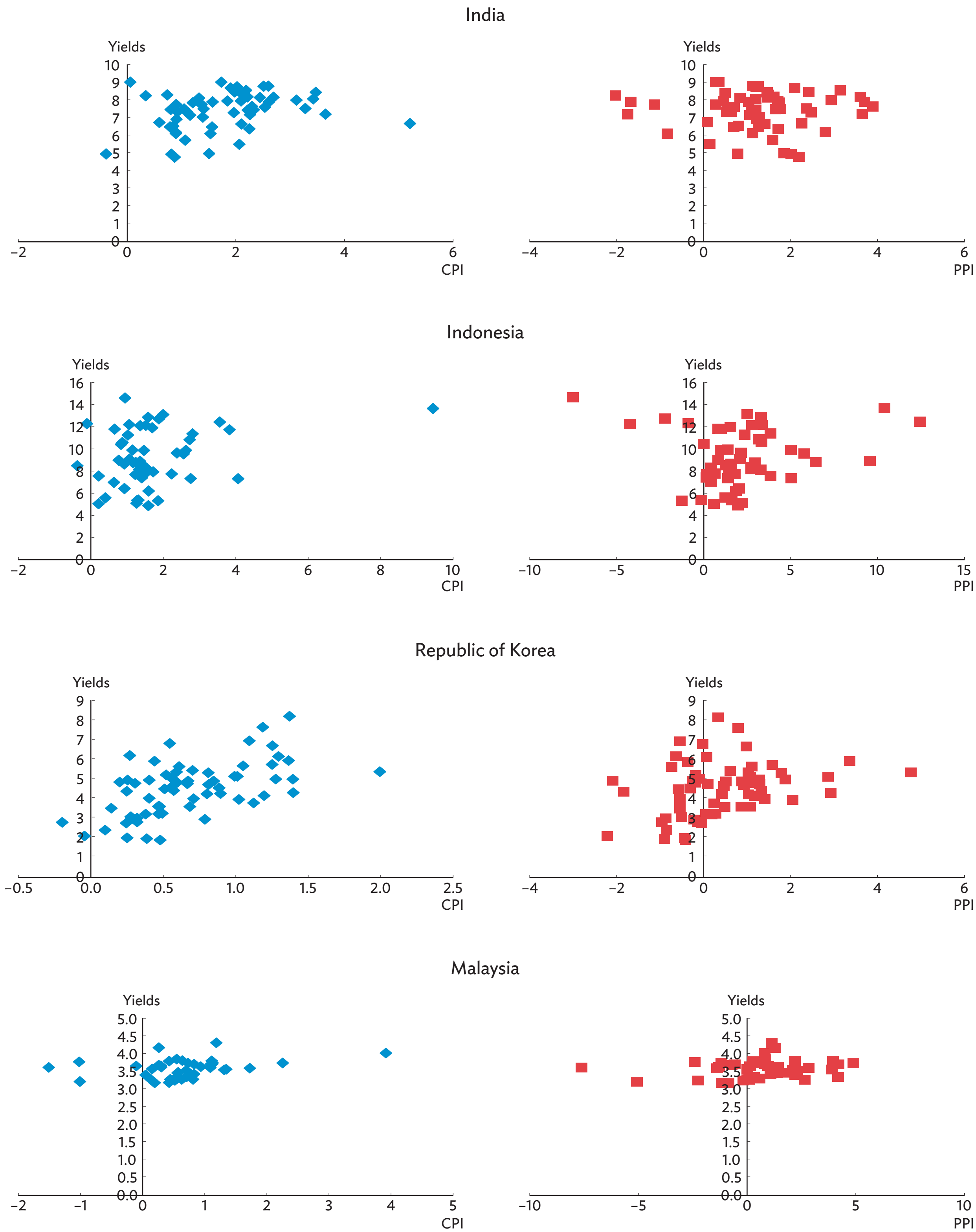
Figure 18 show that there is some correlation between price inflation and yields, albeit to varying degrees across economies. We validate through formal testing whether the reported correlations translate to causality.

A Granger causality test on the variables used in the panel VAR is conducted to determine endogeneity in the variables that might affect yields. The test shows which variables affect yields and whether yields interact with any of the determinants, thereby posing endogeneity issues. If there is endogeneity, a VAR model is estimated, but for parsimonious reasons only the variables that affect yields will be included in the VAR model. A single-equation model will be estimated if yields do not affect any of the determinants. The test is a test of weak exogeneity since it does not involve any contemporaneous relationship between the variables, which is similar to an unrestricted VAR specification. If weak exogeneity is proven, a Hansen-J test for exogeneity of contemporaneous variables will be applied to ensure that a single-equation model is appropriate. A summary of the Granger causality results is shown in **Table 6**. For those economies where the yield model specification does not have factors with quarterly frequency (debt or GDP are not significant), we estimate using monthly data to give us more observations and to allow us to better capture the dynamics of yield movements. **Table A.3** in the Appendix shows the regressions results for economies in which a single-equation model is considered appropriate.

India

The Granger causality test shows that PPI Granger-causes yields and yields Granger-cause the money market rate. Since the money market rate is not a determinant

Figure 18: Scatter Plot of Inflation and Bond Yields



CPI = Consumer Price Index, PPI = Producer Price Index.

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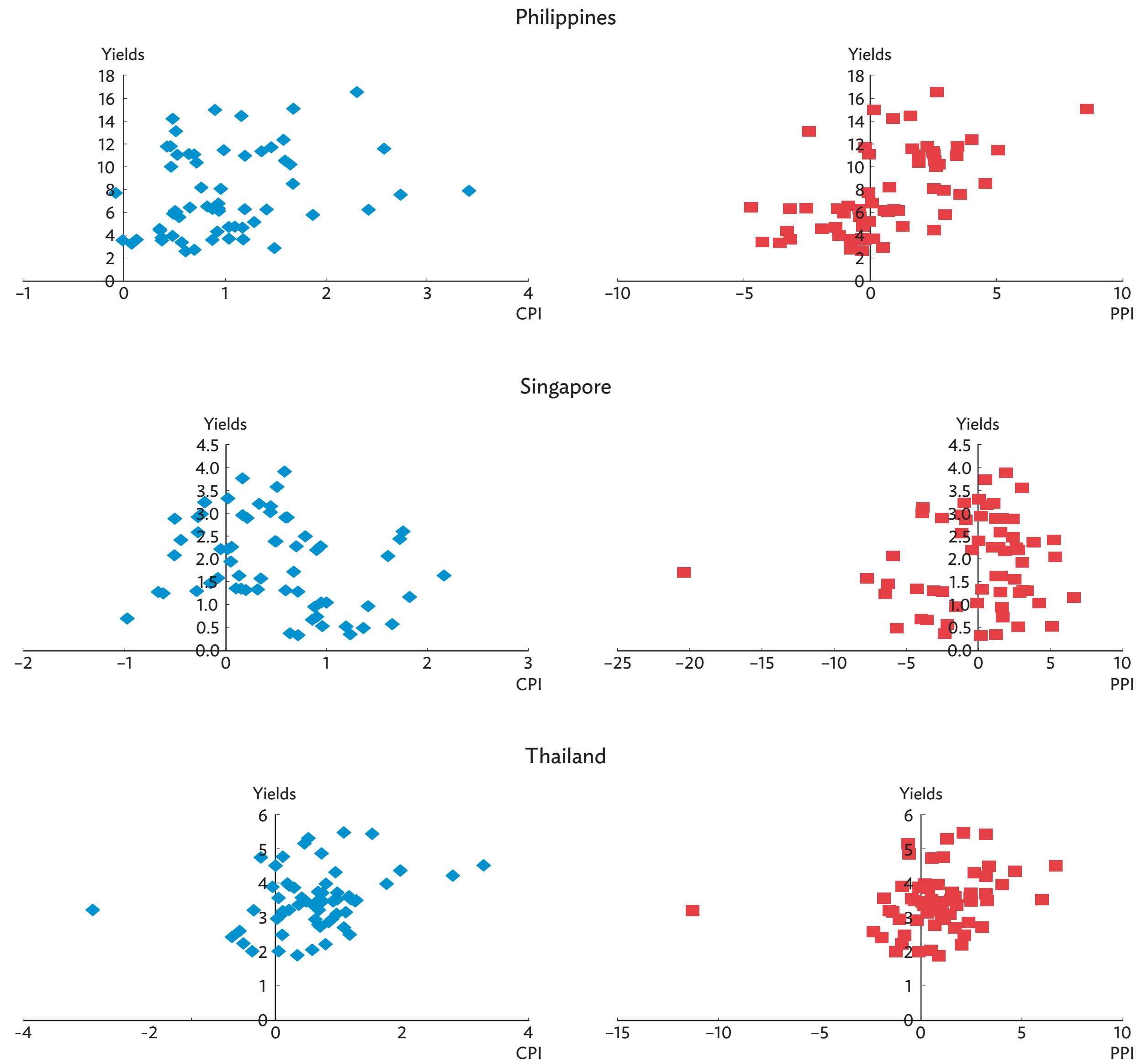
Figure 18: Scatter Plot of Inflation and Bond Yields *continued*



CPI = Consumer Price Index, PPI = Producer Price Index.
Sources: CEIC Data for inflation; bond yield quarterly averages based on daily data from Bloomberg LP.

of yields, a single-equation specification appears to be adequate. CPI is not shown to Granger-cause yields but yields Granger-cause CPI.

Since causality between CPI and bond yields was not established, we use PPI to model yield drivers for India. Given that the India's bond yields are nonstationary, we determine whether there exists a long-run relationship between yields and the macroeconomic factors. Since the autoregressive distributed lag bounds test points to a long-run relationship, the appropriate long-run and short-run representations are estimated and included in **Table A.4** in the Appendix.[12]

India's bond yields have a long-run relationship with output growth and US yields. The speed of adjustment is

[12] Pesaran and Shin (1999) and Pesaran, Shin, and Smith (2001) use bounds testing to verify the presence of cointegrating relationships even with a mix of I(1) and I(0) variables. The autoregressive distributed lag form can be transformed into its long-run and short-run forms when cointegrating relationships have been ascertained, as is the case with India's yield–macroeconomic conditions specification in our findings.

Table 6: Summary of Granger Causality Test Results

		Impulse						
		Domestic bond yield	CPI	PPI	Money market rate	GDP growth	Sovereign debt	US yields
Response	Domestic bond yield		MAL, THA	IND, KOR		KOR		IND
	CPI	IND			IND		THA	KOR
	PPI	MAL						KOR, SIN
	Money market rate	IND	KOR, MAL, THA	IND, INO, KOR, MAL, THA		IND, KOR, MAL, THA	KOR	IND, MAL
	GDP growth		MAL, PHI, SIN	MAL	SIN		KOR	
	Sovereign debt	PHI	KOR	INO, KOR	IND, MAL			
	US yields	MAL	SIN	THA	THA	IND, KOR		

IND = India, INO = Indonesia, KOR = Republic of Korea, MAL = Malaysia, PHI = Philippines, SIN = Singapore, THA = Thailand.
Note: Countries indicated are those with significant results at 1% and 5% levels in the Granger causality tests.
Source: ADB estimates.

0.42, which indicates that it will take about 2.4 quarters to get back to the long-run equilibrium after changes occur in output growth and US yields. GDP growth has negative long-run and short-run relationships with yields. The negative relationship appears to be counterintuitive as economic expansion is expected to increase bond yields because of the increased demand for funds. Pham (2014) also obtained a negative correlation between yields and output growth, though it is not significant and he postulated that the negative correlation could be driven by wealth effects that may reduce demand for funds. In addition, expansion can also boost the risk profile of the economy, thereby reducing yields. PPI is the relevant price index and higher PPI inflation is shown to increase bond yields, with a 1 percentage point increase in inflation increasing yields by 0.09 percentage points. Debt accumulation also increases bond yields, which is related to the capacity to pay. The debt market may be viewed as riskier if debt accumulation is rising, and therefore to encourage bond holdings, yields may go up. Jaramillo and Weber (2012) also reported a positive effect for debt on yields.

Indonesia

There are no lagged price effects on yields based on the Granger causality test, and the other variables in the panel VAR system also have no lagged effects on yields. The least squares estimates only indicate contemporaneous effects in line with the Granger causality conclusion of no lagged effects on yields. The Hansen-J test that checks for regressor endogeneity shows that the regressors are exogenous and so the least squares results are valid for inferences. There was also no causality between PPI inflation and yields despite some correlation; stronger comovements are found between CPI and yields. Since there is no causality between PPI and yields, CPI inflation is used to model yield movements.

The results show that similar to the panel VAR model, the drivers of yields are the money market rates, inflation, and US yields. The relevant price variable is the CPI, where a 1 percentage point increase in inflation increases yields by 0.02 percentage points. Rising prices reduce real interests on assets and decrease demand. Higher prices also increase demand for liquidity in order to meet transaction demand and therefore reduce liquidity allotted for investments in financial assets, which decreases asset prices (and raises bond yields). A 1 percentage point increase in the money market rate increases yields by about 0.48 percentage points. This positive correlation is in line with the impact of liquidity, in which higher interest rates reduce domestic liquidity and the demand for financial assets.

The correlation between US yields and domestic bond yields suggests that global sentiments affect the domestic financial markets. Rising bond market yields in the US signal increase confidence in the global economy and this affects the sentiments on emerging markets as well. As yields in the global market increases, to draw investors to domestic market, domestic yields go up.

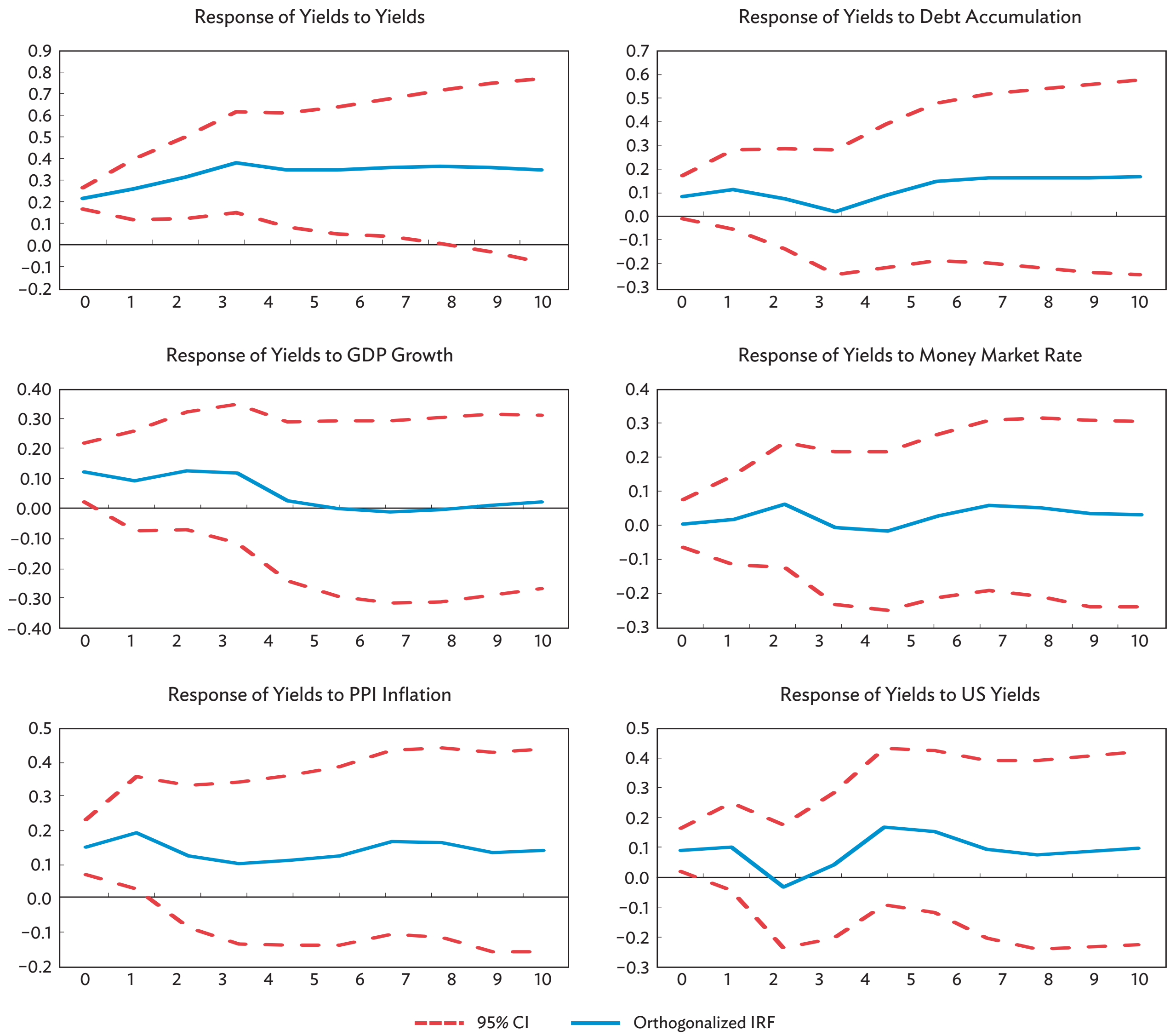
The positive correlations between yields and money market rates, domestic yields and US bond yields, and yields and inflation are all as expected based on the literature. Monetary policies affect the credit market, thereby affecting yields. Economic stability impacts investor confidence, likewise affecting yields. The established links show how macroeconomic and global market conditions affect investor sentiments.

Republic of Korea

The Granger causality test indicates that PPI inflation and GDP growth Granger-cause yields, the rate of debt accumulation Granger-causes GDP growth, and US yields Granger-cause PPI inflation. The effects on GDP and PPI of debt and US yields, respectively, indicate an indirect effect of debt and US yields on yields. To capture the pass-through effects of debt and US yields, we implement the VAR despite not finding any endogeneity issues.

Results from the VAR estimation show that yields tend to be affected by PPI inflation, GDP growth, and US yields **(Figure 19)**. Debt accumulation has an indirect effect on yields through pass-through effects on PPI inflation and GDP growth. The money market rate also affects

Figure 19: Response of Yields to Shocks on Macroeconomic Factors, Republic of Korea



CI = Confidence Interval, GDP = gross domestic product, IRF = Impulse Response Function, PPI = Producer Price Index, US = United States.
Source: ADB estimates.

yields through GDP growth. PPI has an indirect effect on domestic yields through its effect on US yields. The results are similar to those of the panel VAR, suggesting the robustness of the macrofinance correlations.

To the extent that rising domestic prices indicate increased economic activity and lead to an improvement in investor sentiments, the global investment climate may also be affected as indicated through the increase in US yields. On the other hand, if price hikes are seen as a disruption to macroeconomic stability and cause declining real returns, it might result in the movement of capital, which can increase demand for global assets and increase US yields. Debt accumulation affects PPI and GDP growth, which indicates that demand for credit is related to economic activity that improves investor sentiments, thereby pushing bond yields up.

Malaysia

The Granger causality tests show that CPI Granger-causes yields and that there are no endogeneity issues; a single-equation specification therefore is sufficient. The least squares estimates confirm the Granger causality test results of a lagged CPI effect on yields.

Malaysia's bond yields are driven by its past values, US bond yields, and lagged CPI. Since consumer prices are the relevant price variable, it shows how investor demand for assets drives yields.

A 1 percentage point increase in US bond yields is shown to increase domestic yields by 0.1 percentage points in the current period and by 0.2 percentage points in the next period. Similar to domestic bond yields, information contained in US bond yields is carried over into the next period. The results indicate more tempered domestic yield movements compared with US bond yields.

Bond yields move with CPI inflation: a 1 percentage point increase in inflation increases bond yields by 0.06 percentage points. As inflation was moderate in Malaysia during the review period, yields were fairly stable. Inflation is seen as an indicator of economic stability that boosts investor confidence and periods of declining inflation were accompanied by rising stock prices, indicating increased demand for assets.

PPI and US yields are shown to Granger-cause domestic yields at the 10% level of significance. We implement a VAR on yields, PPI, and US yields to test this relationship since the Granger causality test shows that domestic yields Granger-cause PPI and US yields.

The impulse response function from the VAR shows the same determinants of yields as the least squares estimates: prices and US yields. Shocks to domestic bond yields were not shown to affect US bond yields or PPI inflation, which suggests that the least squares estimates are valid.

The least squares estimates and the VAR both showed US bond yields as a driver of domestic bond yields correlation is shown in the strong comovement between US yields and Malaysia's bond yields. However, domestic yields did not follow the downward trend of US yields as there was no downward movement in the money market rates (Figure 14).

Philippines

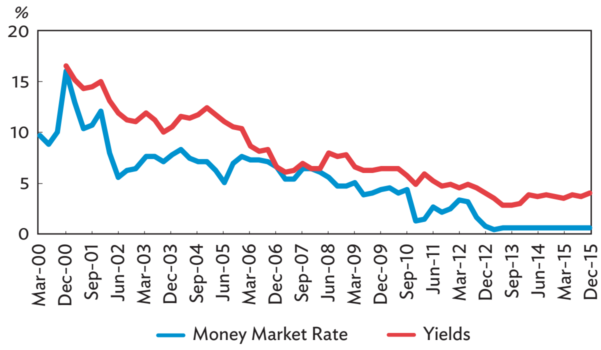
The Granger causality tests show lagged CPI inflation and debt accumulation effects on yields at the 10% level of significance. The Hansen-J test on regressor endogeneity also shows that yields have no contemporaneous effects on the macroeconomic variables. Since there are no endogeneity issues, a single-equation model is implemented. The least squares results show that macroeconomic factors only have contemporaneous correlations with yields. On the other hand, PPI inflation has no contemporaneous effect on yields despite some reported correlation, albeit a weaker correlation than that between CPI inflation and yields.

Philippine bond yields exhibit persistence and are driven by domestic liquidity conditions as indicated by the effects of CPI inflation and money market rates on yields. Bond yields tracked the general trend of the money market rate **(Figure 20a)** and also showed correlation with inflation, which suggest domestic liquidity as a driver of financial market activity; this is supported by the negative correlation between bond yields and stock prices **(Figure 20b)**.

Singapore

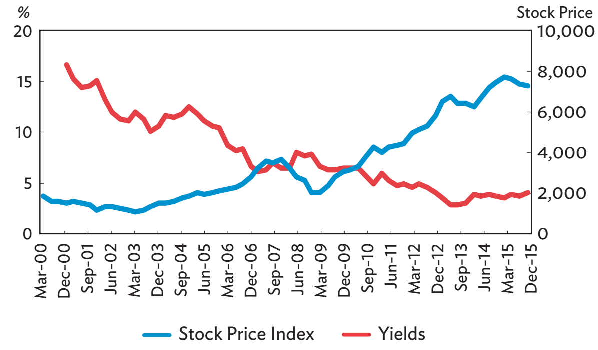
In the case of Singapore, the Granger causality tests show no lagged effects. A single equation specification is implemented to test for any contemporaneous correlations with the macroeconomic variables. The

Figure 20a: 5-Year Bond Yields and 3-Month Money Market—Philippines



Source: Quarterly averages based on daily data from Bloomberg LP.

Figure 20b: 5-Year Bond Yields and Stock Price Index—Philippines



Source: Quarterly averages based on daily data from Bloomberg LP.

estimation results show that Singapore bond yields exhibit some persistence since past information on yields remains relevant. PPI inflation is also identified as a yield driver. The overall fit of the model, however, is very low as may be gleaned from the relatively weak correlation between inflation and yields (Figure 14).

Estimates show that a 1 percentage point increase in US bond yields increases Singapore's yields by 0.49 percentage points, thereby indicating the importance of global sentiments in the domestic market. The results show that Singapore's bond market is integrated with the US market and is highly influenced by global sentiments. This is not surprising given the managed peg of the Singapore dollar vis-à-vis the US dollar and the economy's status as a regional financial center.

Thailand

For Thailand, CPI is shown to Granger-cause yields but yields do not Granger-cause CPI, therefore a single-equation model is estimated. Debt is found to Granger-cause CPI inflation. To capture any indirect effects from debt to yields, a VAR consisting of yields, CPI inflation, and debt accumulation is implemented. The impulse response function indicates that there is no pass-through effect since shocks on debt levels have no impulse effect on CPI. The least squares estimates therefore are valid. Thailand's bond yields are affected by its past values and CPI inflation, which points to the importance of real returns on assets for investor participation in the bond market.

Conclusion

The bond market is an important source of domestic financing; therefore, promoting the bond market is crucial to supporting growth. We examine how macroeconomic conditions affect yields, and consequently bond market participation, for the benefit of macroeconomic managers in promoting bond markets.

Empirical results confirm the importance of keeping inflation under control as rising prices can bring about instability in macroeconomic conditions, causing a loss of investor confidence and retarding the development of the bond market. Inflation erodes the real value of investment returns and drives up yields. Stable prices also allow greater room for monetary policy that can promote growth and further increase investor appetite. The results show that the relevant price variable differs across economies. This may require different policy prescriptions for price measures depending on the factors affecting CPI and PPI.

Growth can improve investor confidence as it may signal macroeconomic stability; in this context, output growth can lower yields as in the case of India. To the extent that expansion increases financing needs, our study finds evidence of a positive correlation between output growth and bond yields. The conduct of monetary policy is thus very important in promoting the bond market, particularly in managing inflation without paralyzing growth prospects. The credibility of the monetary authorities is paramount in the conduct of monetary policy and in how policy actions translate into macroeconomic effects.

The global investment climate is also a significant driver. Therefore, macroeconomic stability is crucial as it can increase the resilience of the domestic market in the face of adverse global events and boost investor sentiments.

References

Abrigo, R. M., and I. Love. 2015. Estimation of Panel Vector Autoregression in Stata: A Package of Programs. *University of Hawaii Working Paper*. Honolulu: University of Hawaii.

Ang, A., and M. Piazessi. 2003. A No-Arbitrage Vector Autoregression of Term Structure Dynamics with Macroeconomic and Latent Variables. *Journal of Monetary Economics* 50 (2003). pp. 745–87.

Asian Development Bank. 2016. *Asian Development Outlook*. Manila.

Azis, I. J., S. Mitra, A. Baluga, and R. Dime. 2013. The Threat of Financial Contagion to Emerging Asia's Local Bond Markets: Spillovers from Global Crises. *ADB Working Paper Series on Regional Economic Integration*. No. 106. Manila: Asian Development Bank.

Bekaert, G., S. Cho, and A. Moreno. 2005. New-Keynesian Macroeconomics and the Term Structure. *Columbia University Working Paper*. New York: Columbia University.

Ciarlone, A., P. Piselli, and G. Trebeschi. 2007. Emerging Markets Spreads and Global Financial Conditions. *Bank of Italy Temi di Discussione*. No. 637. Rome: Bank of Italy.

Ebeke, C., and Y. Lu. 2014. Emerging Market Local Currency Bond Yields and Foreign Holdings in the Post-Lehman Period—A Fortune or Misfortune? *IMF Working Paper*. No. 14/29. Washington, DC: International Monetary Fund.

Gonzales–Rozada, M., and E. Levy–Yeyati. 2008. Global Factors and Emerging Market Spreads. *Economic Journal of the Royal Economic Society* 118 (533). pp. 1917–36.

Hordahl, P., O. Tristani, and D. Vestin. 2006. A Joint Econometric Model of Macroeconomic and Term Structure Dynamics. *Journal of Econometrics* 131 (1–2). pp. 405–44.

Jaramillo, L., and A. Weber. 2012. Bond Yields in Emerging Economies: It Matters What State You Are In. *IMF Working Paper*. No. 12/198. Washington, DC: International Monetary Fund.

Matovu, J. 2007. Macroeconomic Factors and Term Structure of Interest Rates. *Makerere University Working Paper*. Kampala: Makerere University.

Pham, T. H. H. 2014. Sovereign Bond Yields in Emerging Asia: New Evidence. https://halshs.archives-ouvertes.fr/hal-01012093/document

Pesaran, M. H., and Y. Shin. 1999. An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis. In S. Strom, ed. *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium*. Cambridge: Cambridge University Press.

Pesaran, M. H., Y. Shin, and R. Smith. 2001. Bounds Testing Approaches to the Analysis of Level Relationships. *Journal of Applied Econometrics* 16 (3). pp. 289–326.

Poghosyan, T. 2012. Long-Run and Short-Run Determinants of Sovereign Bond Yields in Advanced Economies. *IMF Working Paper*. No. 12/271. Washington, DC: International Monetary Fund.

Rudebusch, G., and T. Wu. 2004. A Macro-Finance Model of the Term Structure, Monetary Policy, and the Economy. *Federal Reserve Bank of San Francisco Working Paper*. No. 2003-17. San Francisco: Federal Reserve Bank of San Francisco.

Appendix

Table A.1: Data Description

Series Name	Description	Source
5-Year Sovereign Local Currency Bond Yields	Average of daily closing value of yields on 5-year LCY bonds	Bloomberg LP
Inflation Rate (quarter-on-quarter, month-on-month)	Seasonally adjusted CPI or PPI rate of change	CEIC Data
3-Month Money Market Rate	Average of daily closing value of 3-month money market rates	Bloomberg LP
GDP Growth Rate (year-on-year)	Year-on-year growth in real GDP	CEIC Data
Growth in Debt Levels (Debt Accumulation)	Quarter-on-quarter growth in government debt levels	CEIC Data
5-Year US Sovereign Bond Yields	Average of daily closing value of yields on 5-year US bonds	Bloomberg LP

CPI = Consumer Price Index, GDP = gross domestic product, LCY = local currency, PPI = Producer Price Index, US = United States.
Source: ADB estimates.

Table A.2: Estimation Period Coverage

Economy	Period
India	Q1 2000 to Q4 2015
Indonesia	Q3 2009 to Q4 2015
Republic of Korea	Q2 2005 to Q4 2015
Malaysia	M7 2005 to M10 2015
Philippines	M3 2001 to M10 2015
Singapore	M3 2000 to M9 2015
Thailand	M9 2000 to M11 2015

M = month, Q = quarter.
Source: ADB estimates.

Table A.3: Regression Results of Single Equation Models

Economy	Indonesia	Malaysia (Model 1)	Malaysia (Model 2)	Philippines	Singapore (Model 1)	Singapore (Model 2)	Thailand
Local currency bond yield (Lag 1)		0.880*	0.882*	0.213*	0.160**		0.913*
Local currency bond yield (Lag 2)				(0.272)*			
CPI inflation	21.951*	3.573		31.068*			11.803**
CPI inflation (Lag 1)		4.146					
CPI inflation (Lag 2)		4.845**	6.377**				
PPI inflation					1.963*		
Change in money market rate	0.474**			0.246*			
Change in US 5-year yield	1.430*	0.143**	0.159**			0.485*	
Change in US 5-year yield (Lag 1)		0.173*	0.213*				
Rate of debt accumulation	(2.809)						
Adjusted R-squared	0.307	0.836	0.830	0.256	0.066	0.335	0.909
No. of observations	26	123	125	176	187	190	183

( ) = negative, CPI = Consumer Price Index, PPI = Producer Price Index, US = United States.
Notes: * and ** indicate significance at the 1% and 5% level, respectively. Quarterly data are used for Indonesia and monthly data are used for Malaysia, the Philippines, Singapore, and Thailand. CPI inflation for Indonesia refers to quarter-on-quarter inflation, while it refers to month-on-month inflation for the other economies. PPI inflation refers to month-on-month inflation for Singapore. All variables are stationary.
Source: ADB estimates.

Table A.4: Autoregressive Distributed Lag Cointegrating and Long-Run Form, India

Variable	Coefficient	Std. Error
Cointegrating Form		
L(1) Change in the dependent variable	(0.183)	0.173
L(2) Change in the dependent variable	(0.070)	0.191
Change in 3-mo. money market rates	0.243	0.069*
L(1) Change in 3-mo. money market rates	(0.065)	0.096
L(2) Change in 3-mo. money market rates	0.047	0.100
L(3) Change in 3-mo. money market rates	0.065	0.065
Change in US 5-year bond yields	0.324	0.130*
PPI Inflation (q-o-q)	9.954	4.212**
L(1) PPI Inflation (q-o-q)	6.856	7.386
Change in rate of debt accumulation	7.013	3.204**
L(1) Change in rate of debt accumulation	4.391	4.075
L(2) Change in rate of debt accumulation	8.001	3.673**
Change in GDP growth	(0.061)	0.028**
L(1) Change in GDP growth	0.049	0.025
CointEq(-1)	(0.423)	0.145*
Long Run Coefficients		
Money market rate	(0.215)	0.281
US 5-year bond yields	1.210	0.460**
Log of PPI	5.057	19.484
Log of Debt levels	1.791	9.198
GDP growth	(0.345)	0.151**
Constant	(35.024)	10.717
Adjusted R-squared	0.943	
Number of observations	53	

GDP = gross domestic product, PPI = Producer Price Index, US = United States.
Notes: L(1) – Lag 1, L(2) – Lag 2, and L(3) – Lag 3.
Source: ADB estimates.

Market Summaries

People's Republic of China

Yield Movements

Between 1 March and 15 May, the local currency (LCY) government bond yield curve in the People's Republic of China (PRC) shifted upward, with yields for all tenors rising **(Figure 1)**. The largest increase was for the 1-year tenor, which rose 17 basis points (bps). The rise in yields was less pronounced at the longer-end of the curve, with yields for tenors more than 5 years rising only 2–4 bps. As a result, the 2-year versus 10-year spread fell from 39 bps on 1 March to 34 bps on 15 May.

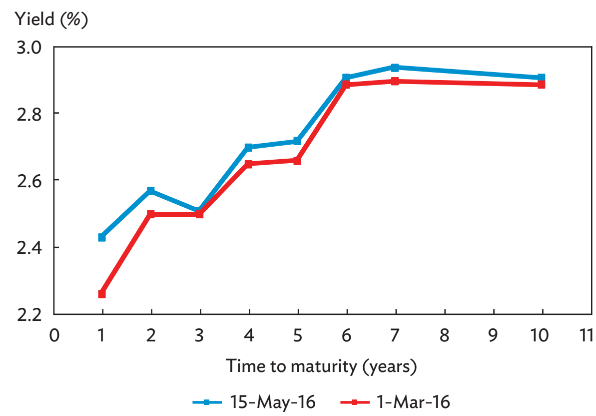
The rise in yields was in contrast to most of the economic data for the PRC. Gross domestic product growth slowed to 6.7% in the first quarter (Q1) of 2016 from 6.8% in the fourth quarter (Q4) of 2015. The slowdown was evident in all three major sectors of the economy. The agriculture sector's growth slowed to 2.9% in Q1 2016 from 4.1% in Q4 2015. The manufacturing sector's gross domestic product growth slowed to 5.8% in Q1 2016 from 6.1% in the prior quarter. Lastly, service sector growth fell to 7.6% from 8.2%.

Exports also remained weak. Monthly export data for Q1 2016 is somewhat distorted due to the varying timing of the Lunar New Year. Using January–April figures as a whole to remove this effect shows that exports fell 2.1% in renminbi terms and 7.6% in US dollar terms (due to the depreciation of the renminbi).

Inflation, however, showed signs of stabilizing. The consumer price inflation rate remained at 2.3% in February–April. Producer price inflation also showed some improvement, with the deflation rate falling to 3.4% in April from 4.3% in March.

To help spur the economy, the People's Bank of China (PBOC) reduced the reserve requirement ratio of financial institutions by 50 bps effective 1 March. The cut effectively reduced the reserve requirement ratio on large banks to 17.0%.

Figure 1: The People's Republic of China's Benchmark Yield Curve—Local Currency Government Bonds



Source: Based on data from Bloomberg LP.

Despite the weak economic growth and reserve requirement ratio cut, the yield curve shifted upward in the PRC from 1 March to 15 May. An increased supply of government bonds for a debt swap program, particularly local government bonds, placed pressure on yields to rise.

The rise in yields was also driven by uncertainty over implementation of the new value-added tax (VAT), which is to be expanded to some financial transactions. While the details have not been finalized, markets were initially concerned that the value would increase borrowing costs for repurchase (repo) transactions and reduce income from policy bank bond holdings.

Negative risk sentiment weighed on bonds overall, driven by concerns over rising debt levels and corporate bond defaults in the PRC. In April, China Railway Materials announced that it would seek to restructure debt. In the same month, Dongbei Special Steel Group, Baoding Tianwei Group, and Chinacoal Group Shanxi Huayu Energy missed debt payments.

Size and Composition

Outstanding LCY bonds in the PRC grew 5.1% quarter-on-quarter (q-o-q) and 28.3% year-on-year (y-o-y) to CNY42.0 trillion (USD6.5 trillion) at the end of Q1 2016 **(Table 1)**.

Government Bonds. LCY government bonds outstanding stood at CNY27.8 trillion in Q1 2016 on q-o-q growth of 5.2% and y-o-y growth of 33.0%. Growth was driven by a large increase in Treasury bonds, which rose 5.8% q-o-q and 54.5% y-o-y. For the past few quarters, Treasury bonds have seen large increases due to continued issuances of local government bonds as local governments refinanced existing debt and reduced borrowing costs by swapping debt for municipal bonds. The total amount of local municipal bonds issued is covered by a cap, which has increased over time. The cap stands at CNY15 trillion and the government expects the debt swap program to be completed by the end of 2017.

Policy bank bonds continued to grow, though not at the same pace as Treasury bonds, with policy bank bonds expanding 4.6% q-o-q and 12.8% y-o-y. The outstanding amount of central bank bonds remained unchanged in Q1 2016 from the prior quarter as the PBOC has ceased issuing central bank bonds, using other tools to affect liquidity.

Corporate Bonds. Corporate bonds outstanding grew 4.9% q-o-q and 19.9% y-o-y to CNY14.2 trillion. Among the major bond categories, commercial paper and commercial bank bonds, and Tier 2 notes showed the strongest growth, rising 12.6% q-o-q and 9.3% q-o-q, respectively **(Table 2)**. Strong issuance by commercial banks and insurance companies continued to be driven by fund-raising efforts. However, medium-term notes outstanding rose only 1.8% q-o-q due to maturing debt.

Medium-term notes had the highest issuance level among the major bond categories in Q1 2016 **(Figure 2)**, but issuance was lower than in the prior quarter. Commercial bank bonds and Tier 2 notes issuance increased to CNY203 billion in Q1 2016 from CNY168 billion in Q4 2015 on continued fund-raising efforts.

A relatively small number of issuers dominate the PRC's corporate bond market **(Table 3)**. At the end of Q1 2016, the top 30 corporate bond issuers accounted for CNY8.0 trillion worth of corporate bonds outstanding, or 56.7% of the PRC corporate market. Out of the top 30, the 10 largest issuers accounted for CNY4.8 trillion.

The top 30 issuer list is dominated by banks, owing to the continued issuances of commercial bank bonds as banks accelerate fund-raising. Among the top 30 corporate issuers, 20 of them were in the banking industry.

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

	Outstanding Amount (billion)						Growth Rates (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	CNY	USD	CNY	USD	CNY	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**32,731**	**5,279**	**39,938**	**6,150**	**41,983**	**6,505**	**1.6**	**12.0**	**5.1**	**28.3**
Government	20,894	3,370	26,408	4,067	27,791	4,306	1.0	10.0	5.2	33.0
Treasury Bonds	10,263	1,655	14,984	2,307	15,856	2,457	(0.4)	12.3	5.8	54.5
Central Bank Bonds	428	69	428	66	428	66	0.0	(22.5)	0.0	0.0
Policy Bank Bonds	10,203	1,646	10,996	1,693	11,507	1,783	2.5	9.6	4.6	12.8
Corporate	11,837	1,909	13,529	2,083	14,192	2,199	2.7	15.7	4.9	19.9
Policy Bank Bonds										
China Development Bank	6,337	1,022	6,601	1,017	6,816	1,056	1.1	5.8	3.3	7.6
Export–Import Bank of China	1,694	273	1,852	285	1,913	296	7.0	16.2	3.3	12.9
Agricultural Devt. Bank of China	2,172	350	2,543	392	2,778	430	3.0	16.4	9.2	27.9

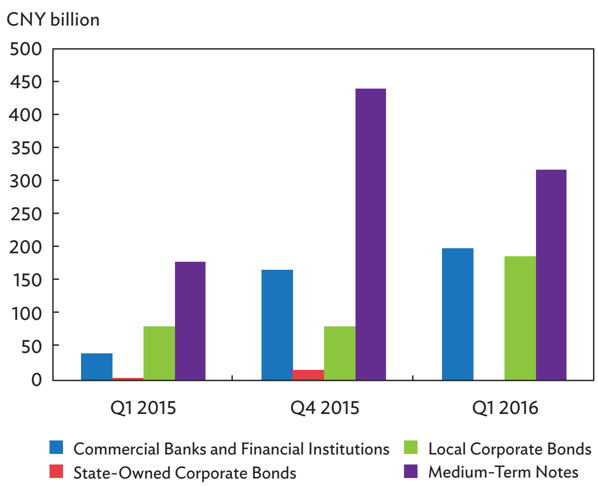
( ) = negative, CNY = Chinese yuan, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Treasury bonds include savings bonds and local government bonds.
3. Bloomberg LP end-of-period local currency–USD rate is used.
4. Growth rates are calculated from local currency base and do not include currency effects.
Sources: *ChinaBond*, *Wind*, and Bloomberg LP

Table 2: Corporate Bonds Outstanding in Key Categories

	Amount (CNY billion)			Growth Rate (%)			
				Q1 2015		Q1 2016	
	Q1 2015	Q4 2015	Q1 2016	q-o-q	y-o-y	q-o-q	y-o-y
Commercial Bank Bonds and Tier 2 Notes	1,639	2,009	2,196	1.0	22.0	9.3	34.0
SOE Bonds	612	588	583	1.0	(2.7)	(0.9)	(4.8)
Local Corporate Bonds	2,377	2,558	2,690	1.0	22.1	5.2	13.2
Commercial Paper	1,866	2,405	2,709	1.1	14.3	12.6	45.2
Medium-Term Notes	4,227	4,702	4,787	1.0	9.2	1.8	13.3

( ) = negative, CNY = Chinese yuan, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, SOE = state-owned enterprise, y-o-y = year-on-year.
Sources: *ChinaBond* and *Wind*.

Figure 2: Corporate Bond Issuance in Key Sectors



CNY = Chinese yuan, Q1 = first quarter, Q4 = fourth quarter.
Sources: *ChinaBond* and *Wind*.

Table 4 presents the most notable corporate bond issuances in Q1 2016. The list mainly comprises banks and oil companies, reflecting the fund-raising efforts of banks this year and the large financing needs of the oil industry.

Investor Profile

Treasury Bonds and Policy Bank Bonds. Banks remained the dominant investor group in Q1 2016, holding 71.9% of all Treasury bonds, including policy bank bonds **(Figure 3)**. This was down from the same period last year. The holdings of funds institutions, such as mutual funds, have steadily increased over time, comprising 10.3% in Q1 2016, up from 6.0% in Q1 2015.

Corporate Bonds. Banks were no longer the largest holders of corporate bonds at the end of Q1 2016. Banks' share of corporate bonds fell to 21.3% at the end of March 2016 from 26.6% a year earlier **(Figure 4)**. Funds institutions became the dominant holder of corporate bonds, holding 38.1% of the outstanding stock in Q1 2016, up from 23.3% a year earlier.

Figure 5 presents investor profiles across corporate bond categories at the end of March. Funds institutions are the dominant holders of local corporate bonds, with the percentage share of bank holdings declining over time. Banks and insurance companies are the dominant holders of commercial bank bonds, with commercial banks holding the majority of common bonds and insurance companies holding the most subordinated bonds.

Liquidity

Interest rate swap volumes fell 15.1% q-o-q, driven mostly by a decline in 7-day repo transactions. The 7-day repo interest rate swap is the most popular interest rate swap, accounting for nearly 82% of total transaction volume in Q1 2016 **(Table 5)**.

Figure 6 presents the turnover ratio of government bonds, broken down into Treasury bonds and policy bank bonds. In the later half of 2015 and in Q1 2016, trading volumes experienced an increase, particularly for policy bank bonds.

Table 3: Top 30 Issuers of Local Currency Corporate Bonds in the People's Republic of China

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (CNY billion)	LCY Bonds (USD billion)			
1.	China Railway	1,253.5	194.23	Yes	No	Transportation
2.	Shanghai Pudong Development Bank	650.2	100.74	No	Yes	Banking
3.	Industrial Bank	573.6	88.88	No	Yes	Banking
4.	State Grid Corporation of China	368.1	57.04	Yes	No	Public Utilities
5.	China Merchants Bank	361.7	56.04	No	Yes	Banking
6.	China Citic Bank	334.4	51.81	No	Yes	Banking
7.	China Everbright Bank	330.1	51.14	Yes	Yes	Banking
8.	China National Petroleum	330.0	51.13	Yes	No	Energy
9.	Bank of China	310.6	48.12	Yes	Yes	Banking
10.	Industrial and Commercial Bank of China	283.1	43.86	Yes	Yes	Banking
11.	Ping An Bank	278.6	43.17	Yes	Yes	Banking
12.	Agricultural Bank of China	262.0	40.60	Yes	Yes	Banking
13.	Bank of Beijing	248.9	38.57	Yes	Yes	Banking
14.	China Construction Bank	218.1	33.80	Yes	Yes	Banking
15.	China Minsheng Bank	215.0	33.31	No	Yes	Banking
16.	Petrochina	201.3	31.19	Yes	Yes	Energy
17.	Huaxia Bank	188.6	29.22	Yes	No	Banking
18.	Evergrowing Bank	169.4	26.25	No	No	Banking
19.	Bank of Shanghai	167.1	25.90	Yes	Yes	Banking
20.	Bank of Beijing	150.2	23.27	Yes	Yes	Banking
21.	State Power Investment	144.0	22.31	Yes	No	Energy
22.	Bank of Communications	143.5	22.23	No	Yes	Banking
23.	Central Huijin Investment	127.7	19.78	Yes	No	Diversified Financial
24.	Senhua Group	118.5	18.36	Yes	No	Energy
25.	China Petroleum and Chemical	112.4	17.42	Yes	Yes	Energy
26.	China Three Gorges Project	112.0	17.35	Yes	No	Public Utilities
27.	China Southern Power Grid	109.0	16.89	Yes	No	Public Utilities
28.	Huishang Bank	99.6	15.44	Yes	Yes	Banking
29.	China Guangfa Bank	99.6	15.44	No	Yes	Banking
30.	China Zheshang Bank	87.9	13.62	No	No	Banking
Total Top 30 LCY Corporate Issuers		**8,048.53**	**1,247.14**			
Total LCY Corporate Bonds		**14,191.87**	**2,199.06**			
Top 30 as % of Total LCY Corporate Bonds		**56.7%**	**56.7%**			

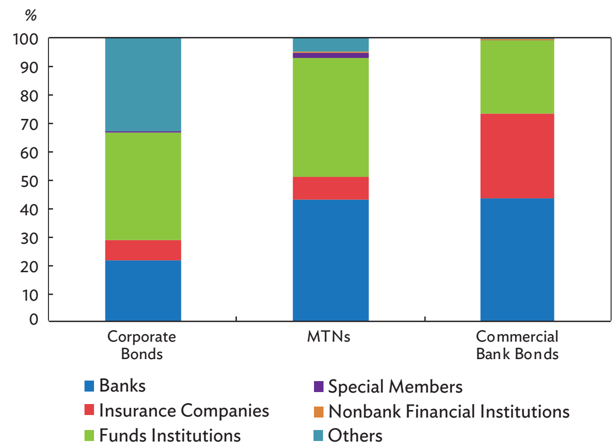
CNY = Chinese yuan, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Bloomberg data.

Table 4: Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (CNY billion)
Huaxia Bank		
3-year bond	3.03	15
5-year bond	3.25	25
China National Petroleum		
3-year bond	3.05	20
Shanghai Pudong Development Bank		
3-year bond	2.95	20
Petrochina		
5-year bond	3.15	10
Founder Securities		
5-year bond	4.43	10
BOE Technology Group		
5-year bond	3.15	10

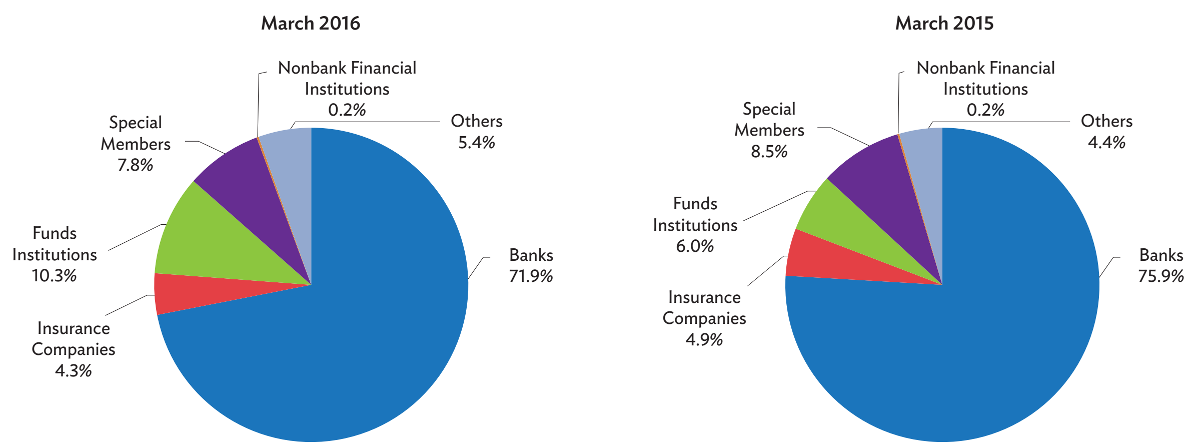
CNY = Chinese yuan, Q1 = first quarter.
Source: Based on data from Bloomberg LP.

Figure 5: Investor Profile across Bond Categories



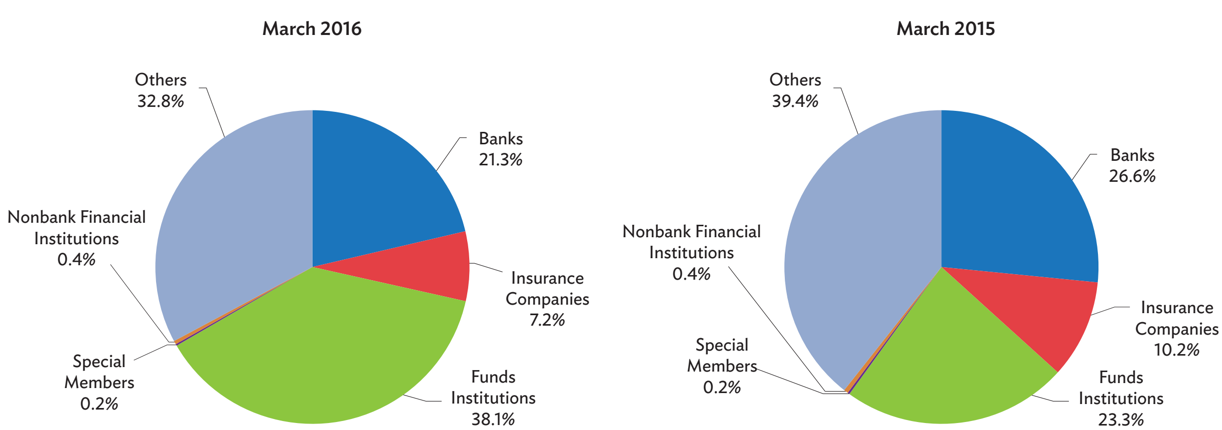
MTNs = medium-term notes.
Note: Data as of end-March 2016.
Source: *ChinaBond*.

Figure 3: Local Currency Treasury Bonds and Policy Bank Bonds Investor Profile



Source: *ChinaBond*.

Figure 4: Local Currency Corporate Bonds Investor Profile



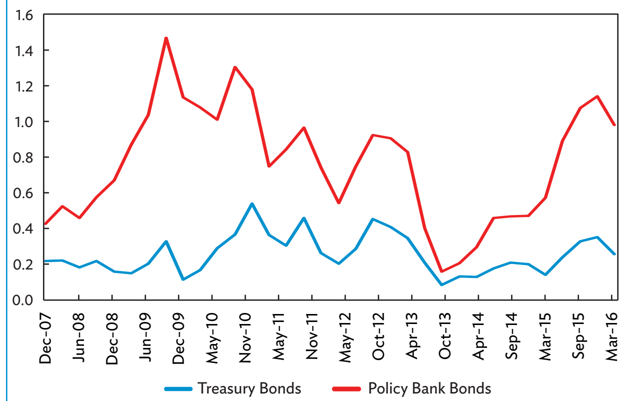
Source: *ChinaBond*.

Table 5: Notional Values of the People's Republic of China's Interest Rate Swap Market in Q1 2016

Interest Rate Swap Benchmarks	Notional Amount (CNY billion)	Percentage of Total Notional Amount (%)	Growth Rate (%)
	Q1 2016		q-o-q
7-Day Repo Rate	1,644.6	81.75	(16.95)
Overnight SHIBOR	120.3	5.98	(24.86)
3-Month SHIBOR	234.1	11.64	22.49
1-Year Term Deposit Rate	5.7	0.28	11.36
LIBOR	0.0	0.00	0.00
1-Year Lending Rate	6.4	0.32	(79.81)
LPR1Y	0.3	0.01	(55.99)
3-Year Lending Rate	0.4	0.02	0.00
5-Year Lending Rate	0.0	0.00	0.00
Total	**2,011.8**	**100.00**	**(15.08)**

( ) = negative, CNY = Chinese yuan, LIBOR = London Interbank Offered Rate, q-o-q = quarter-on-quarter, Q1 = first quarter, Repo = repurchase, SHIBOR = Shanghai Interbank Offered Rate.
Note: Growth rate computed based on notional amounts.
Sources: *AsianBondsOnline* and *ChinaMoney*.

Figure 6: Turnover Ratios for Government Bonds



Source: *ChinaBond*.

Policy, Institutional, and Regulatory Developments

People's Bank of China Reduces Reserve Requirement Ratios

In March, the PBOC lowered the reserve requirement ratios of financial institutions by 50 bps. For large banks, the changes resulted in a reserve requirement ratio of 17.0%.

Value-Added Tax Applied to Financial Transactions

On 23 March, the PRC issued guidelines for the new VAT. Under the plan, the PRC will shift from levying a business tax on certain transactions and industries to a VAT-based one. The financial industry is one of the sectors affected, with interest income from loans and other income to be subject to a 6.0% VAT instead of a 5.5% business tax.

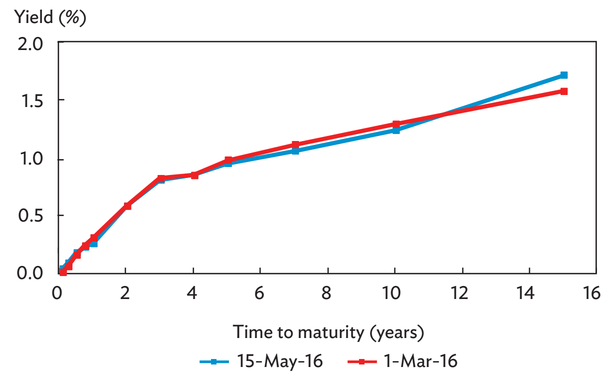
Hong Kong, China

Yield Movements

Between 1 March and 15 May, Hong Kong, China's yield curve movements for Exchange Fund Bills and Notes mostly followed the movements of United States (US) Treasuries **(Figure 1)**. Yields fell for all tenors during the review period except at the very short-end and very long-end of the curve. Yields fell between 1 basis point (bp) and 6 bps for all tenors between 9-months and 10-years, with the exception of the 2-year and 4-year tenors, which remained unchanged. For bonds with tenors of less than 9 months, yields rose 2–3 bps, while the 15-year tenor rose 14 bps.

The 2-year-versus-10-year spread fell to 66 bps on 15 May from 71 bps on 1 March.

Figure 1: Hong Kong, China's Benchmark Yield Curve—Exchange Fund Bills and Notes



Source: Based on data from Bloomberg LP.

Hong Kong, China's yields were also affected by the domestic economic slowdown. Hong Kong, China's gross domestic product grew only 0.8% year-on-year (y-o-y) in the first quarter (Q1) of 2016, down from 1.9% growth in the fourth quarter (Q4) of 2015. The slowdown in gross domestic product growth was driven by both domestic and external factors. Private consumption expenditure growth slowed to 1.1% in Q1 2016 from 2.7% in the previous quarter. Exports of goods and services also declined. Exports of goods fell 3.6% y-o-y in Q1 2016 after declining 0.5% in Q4 2015. Exports of services fell 4.9% y-o-y after falling 2.7% y-o-y in the previous quarter.

Inflation in Hong Kong, China softened in the first 4 months of the year. In April, consumer price inflation fell to 2.7% y-o-y from 2.9% y-o-y in March. The slowdown in inflation was driven by slower increases in private housing rental costs and food prices.

Size and Composition

The size of Hong Kong, China's local currency (LCY) bond market rose 2.1% quarter-on-quarter (q-o-q) and 7.2% y-o-y to reach HKD1,657 billion (USD214 billion) at the end of March **(Table 1)**. The q-o-q growth was

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	HKD	USD	HKD	USD	HKD	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,545**	**199**	**1,623**	**209**	**1,657**	**214**	**2.6**	**1.5**	**2.1**	**7.2**
Government	857	111	927	120	957	123	1.0	1.4	3.2	11.7
Exchange Fund Bills	686	89	770	99	800	103	0.3	0.4	4.0	16.6
Exchange Fund Notes	67	9	59	8	56	7	(3.2)	(2.3)	(3.8)	(15.2)
Government Bonds	104	13	99	13	101	13	8.2	11.1	1.6	(3.7)
Corporate	688	89	696	90	700	90	4.7	1.6	0.5	1.7

( ) = negative, HKD = Hong Kong dollar, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period local currency–USD rates are used.
3. Growth rates are calculated from local currency base and do not include currency effects.
Sources: Hong Kong Monetary Authority and Bloomberg LP.

mostly driven by increases in Exchange Fund Bills (EFBs) and government bonds.

EFBs outstanding gained 4.0 q-o-q in Q1 2016 on increased issuance, which rose to HKD621 billion from HKD608 billion in Q4 2015. Despite this, q-o-q growth was down in Q1 2016 from 8.2% growth in the previous quarter due to maturating EFBs.

The Hong Kong Monetary Authority (HKMA) issued EFBs in greater quantities in Q1 2016 to help mop up liquidity as depositors exchanged renminbi for Hong Kong dollars. At the end of March, renminbi deposits had fallen to CNY759 billion from CNY851 billion at the end of December.

Exchange Fund Notes (EFNs) continued to decline in Q1 2016, falling 3.8% q-o-q and 15.2% y-o-y, as HKMA sought to align the EFB and EFN markets with the Hong Kong Special Administrative Region (HKSAR) Government bond market by replacing issuances of EFNs with tenors of 3 years or more with HKSAR bonds.

In Q1 2016, the amount of HKSAR Government bonds rose 1.6% q-o-q, but fell 3.7% y-o-y due to a decline in issuance. HKMA issued a HKD1 billion 10-year HKSAR Government bond and a HKD0.6 billion 15-year HKSAR Government bond under the Institutional Bond Programme in Q1 2016. It did not issue any bonds through the Retail Bond Programme during the quarter under review.

Total corporate bonds outstanding rose 0.5% q-o-q and 1.7% y-o-y in Q1 2016.

The top 30 nonbank issuers in Hong Kong, China had outstanding LCY bonds amounting to HKD123.5 billion at the end of March, representing 17.7% of total corporate bonds outstanding. The top 30 list of issuers was dominated by real estate firms and the financing vehicles of corporates **(Table 2)**. The Hong Kong Mortgage Corporation remained the top issuer with outstanding bonds of HKD19.9 billion. Next was the Link Finance (Cayman) 2009 with HKD9.5 billion of bonds outstanding, followed by CLP Power Hong Kong Financing with HKD9.1 billion. Among the top 30, 6 were state-owned companies and 9 were Hong Kong Exchange-listed firms.

The five largest nonbank issuances in Q1 2016 came from the Hong Kong Mortgage Corporation, MTR Corporation, Hong Kong Electric Finance, China Oceanwide Institutional Finance, and Emperor International Holdings **(Table 3)**.

Policy, Institutional, and Regulatory Developments

Tentative Schedule Released for Hong Kong Special Administrative Region Government Bond Issuance in April–September

On 9 March, the Hong Kong Monetary Authority released a tentative schedule for HKSAR Government bond issuance in April through September under the Institutional Bond Issuance Programme. A 3-year HKD4.0 billion bond was issued on 13 April, a 5-year HKD2.5 billion bond was issued on 11 May, a 10-year HKD1.2 billion bond will be issued on 29 June, and a 15-year HKD0.6 billion bond will be issued on 7 September.

Table 2: Top 30 Nonbank Corporate Issuers in Hong Kong, China

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (HKD billion)	LCY Bonds (USD billion)			
1.	The Hong Kong Mortgage Corporation	19.87	2.56	Yes	No	Finance
2.	The Link Finance (Cayman) 2009	9.46	1.22	No	No	Finance
3.	CLP Power Hong Kong Financing	9.11	1.18	No	No	Finance
4.	MTR Corporation (C.I.)	7.32	0.94	Yes	Yes	Transportation
5.	Sun Hung Kai Properties (Capital Market)	7.22	0.93	No	No	Real Estate
6.	HKCG (Finance)	6.68	0.86	No	No	Finance
7.	Swire Pacific	6.42	0.83	No	Yes	Diversified
8.	Hongkong Electric Finance	5.75	0.74	No	No	Finance
9.	Wharf Finance	5.05	0.65	No	No	Finance
10.	NWD (MTN)	4.51	0.58	No	Yes	Finance
11.	Wheelock Finance	4.04	0.52	No	No	Finance
12.	Kowloon-Canton Railway	3.40	0.44	Yes	No	Transportation
13.	Urban Renewal Authority	3.30	0.43	Yes	No	Real Estate
14.	Swire Properties MTN Financing	3.00	0.39	No	No	Finance
15.	Emperor International Holdings	2.60	0.34	No	Yes	Real Estate
16.	Yue Xiu Property	2.30	0.30	No	No	Real Estate
17.	Chueng Kong Finance (MTN)	2.21	0.28	No	No	Finance
18.	Airport Authority Hong Kong	2.20	0.28	Yes	No	Transportation
19.	Tencent Holdings	2.20	0.28	No	Yes	Communications
20.	Bohai International Capital	2.00	0.26	No	No	Iron and Steel
21.	China Energy Reserve and Chemicals Group Overseas	2.00	0.26	No	No	Oil
22.	Hong Kong Science and Technology Parks	1.95	0.25	Yes	No	Real Estate
23.	Cathay Pacific MTN Financing	1.71	0.22	No	Yes	Finance
24.	Wharf Finance (No. 1)	1.70	0.22	No	No	Finance
25.	Hysan (MTN)	1.65	0.21	No	Yes	Real Estate
26.	Nan Fung Treasury	1.40	0.18	No	No	Real Estate
27.	Henderson Land MTN	1.31	0.17	No	Yes	Finance
28.	Cheung Kong Bond Securities (02)	1.19	0.15	No	No	Finance
29.	Dragon Drays	1.00	0.13	No	No	Diversified
30.	K. Wah International	1.00	0.13	No	Yes	Real Estate
Total Top 30 Nonbank LCY Corporate Issuers		**123.51**	**15.94**			
Total LCY Corporate Bonds		**699.62**	**90.27**			
Top 30 as % of Total LCY Corporate Bonds		**17.7%**	**17.7%**			

LCY = local currency.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Hong Kong Monetary Authority data.

Table 3: Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (HKD billion)
The Hong Kong Mortgage Corporation		
3-year bond	0.00	0.78
MTR Corporation (C.I.)		
25-year bond	2.95	0.40
30-year bond	3.00	0.70
35-year bond	3.00	0.20
35-year bond	3.00	0.60
Hong Kong Electric Finance		
15-year bond	2.80	0.60
15-year bond	3.00	0.50
China Oceanwide International Finance		
3-year bond	8.50	0.50
Emperor International Holdings		
5-year bond	4.40	0.50
The Hong Kong Mortgage Corporation		
3-year bond	1.25	0.78

HKD = Hong Kong dollar, Q1 = first quarter.
Source: Central Moneymarkets Unit, Hong Kong Monetary Authority.

Indonesia

Yield Movements

Local currency (LCY) government bond yields in Indonesia fell for all tenors between 1 March and 15 May, which resulted in the entire yield curve shifting downward **(Figure 1)**. Except for the 1-year and 3-year maturities, where yields fell 37 basis points (bps) and 35 bps, respectively, all other tenors shed an average of 73 bps. The spread between the 2-year and 10-year tenors widened to 71 bps on 15 May from 49 bps on 1 March.

The fall in yields was reflective of positive sentiments in the Indonesian LCY bond market on account of Bank Indonesia's easing of its monetary policy, slowing inflation, and the strengthening of the Indonesian rupiah. Combined with sluggish and still weak growth expectations in the external environment, this resulted in an overall decline in yields.

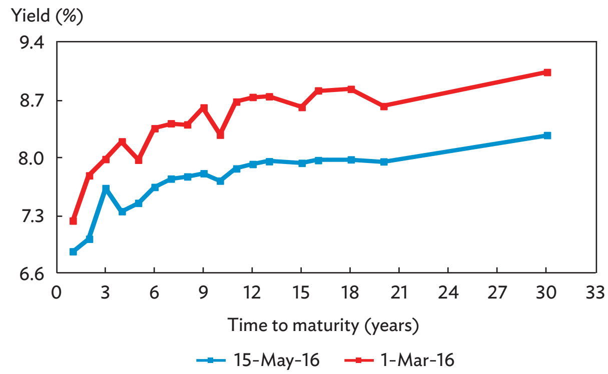
Bank Indonesia reduced its benchmark interest rate by a cumulative 75 bps between January and March. The central bank in its Board of Governors meetings held on 20–21 April and 18–19 May, however, took a pause and held steady its benchmark interest rate at 6.75%. Bank Indonesia kept unchanged the deposit facility rate at 4.75% and the lending facility rate at 7.25%. The central bank also maintained the 7-day repo rate at 5.5%, which will become the new policy rate effective 19 August 2016.

Inflationary pressures eased on account of reductions in electricity tariffs, airfare costs, and nonsubsidized fuel costs. Food prices also declined amid adequate supplies coinciding with the harvest season. Consumer price inflation eased to 3.6% year-on-year (y-o-y) in April, after climbing to 4.1% y-o-y in January, 4.4% y-o-y in February, and 4.5% y-o-y in March. Bank Indonesia expects inflation for full-year 2016 to remain within its target range of 3.0%–5.0%.

The Indonesian rupiah appreciated 3.7% year-to-date against the US dollar through 15 May, supported by a steady inflow of foreign funds and an increased supply of foreign exchange among corporate entities.

Economic growth in Indonesia was lower than expected in the first quarter (Q1) of 2016, as real gross domestic product (GDP) growth slowed to 4.9% y-o-y from

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



Source: Based on data from Bloomberg LP.

5.0% y-o-y in the fourth quarter (Q4) of 2015. Domestic consumption, which accounts for about 58% of GDP, rose 4.9% y-o-y, while government spending expanded 2.9% y-o-y. Investments climbed 5.6% y-o-y in Q1 2016, while both exports and imports contracted during the quarter in review. On a quarter-on-quarter basis, GDP contracted 0.3% in Q1 2016.

Size and Composition

Indonesia's LCY bond market continued to expand in Q1 of 2016 to reach a size of IDR1,903.6 trillion (USD144 billion) at the end of March **(Table 1)**. Total outstanding bonds rose 8.8% quarter-on-quarter (q-o-q) and 16.8% y-o-y in Q1 2016, both of which were up compared with Q4 2015. Conventional bonds continued to account for the bulk of the aggregate bond stock with a share of 88.4% at the end of March. At the same time, *sukuk* (Islamic bonds) increased their share of the total bond stock in Q1 2016 to 11.6% from 10.0% in Q4 2015.

Government Bonds. At the end of March, the outstanding amount of government bonds stood at IDR1,649.7 trillion on growth of 9.9% q-o-q and 17.7% y-o-y. Growth came largely from a larger increase in the stock of central government bonds, comprising Treasury bills and bonds issued by the Ministry of Finance. Central bank bills, known as *Sertifikat* Bank Indonesia (SBI), also recorded positive growth during the review period.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	IDR	USD	IDR	USD	IDR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,629,143**	**125**	**1,750,306**	**127**	**1,903,610**	**144**	**6.5**	**16.5**	**8.8**	**16.8**
Government	1,401,586	107	1,500,426	109	1,649,687	125	7.2	18.6	9.9	17.7
Central Govt. Bonds	1,305,486	100	1,461,846	106	1,575,115	119	7.9	21.7	7.7	20.7
of which: *Sukuk*	145,229	11	159,236	12	204,222	15	31.2	50.1	28.3	40.6
Central Bank Bills	96,100	7	38,580	3	74,572	6	(1.0)	(11.7)	93.3	(22.4)
of which: *Sukuk*	8,810	0.7	6,280	0.5	7,038	0.5	8.4	63.8	12.1	(20.1)
Corporate	227,557	17	249,880	18	253,923	19	2.1	4.7	1.6	11.6
of which: *Sukuk*	7,078	0.5	9,802	0.7	9,216	0.7	(0.4)	(1.6)	(6.0)	30.2

( ) = negative, IDR = Indonesian rupiah, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period local currency–USD rates are used.
3. Growth rates are calculated from local currency base and do not include currency effects.
4. The total stock of nontradable bonds as of end-March stood at IDR261.8 trillion.
Sources: Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; Indonesia Stock Exchange; Otoritas Jasa Keuangan; and Bloomberg LP.

Central Government Bonds. The stock of Treasury bills and bonds climbed to IDR1,575.1 trillion at the end of March, posting 7.7% q-o-q and 20.7% y-o-y growth, on increased bond issuance during the quarter in review. Growth stemmed from increases in the stock of conventional fixed-rate bonds and Treasury bills and Islamic Treasury instruments, particularly Islamic Treasury bills and project-based *sukuk*.

As the Government of Indonesia continued to pursue its policy of debt issuance frontloading, central government bond issuance increased on both a q-o-q and y-o-y basis in Q1 2016. New issuance of Treasury bills and bonds climbed to IDR160.1 trillion in the first 3 months of the year. Of this amount, IDR128.6 trillion was raised from the government's weekly auctions of conventional and Islamic Treasury instruments, and IDR31.5 trillion was raised through bookbuilding from the issuance of retail *sukuk* in March, which marked the largest issuance of such bonds since their first offering in 2009.

The government accepted more than its targeted amount in 10 of the 13 auctions held in Q1 2016. Of the 13 auctions, only one auction fell below the government's target amount. All auctions for *sukuk* were successfully placed and either fully awarded or above target.

The government plans to issue a total of IDR546.6 trillion in government bonds, including foreign-currency-denominated bonds, to help fund its budget shortfall. The 2016 budget deficit is estimated to reach IDR273.2 trillion, which is equivalent to 2.15% of gross domestic product. The government is planning to issue 76% of its gross issuance target through conventional bonds; the remaining 24% will comprise *sukuk*. The government also capped foreign currency bond issuance at 30% of the gross issuance target for the year.

Central Bank Bills. The outstanding stock of central bank bills, or SBI, rose to IDR74.6 trillion at the end of March, up 93.3% q-o-q but down 22.4% y-o-y. Bank Indonesia issues SBI as one of its monetary policy tools to mop up excess liquidity in the market.

In Q1 2016, the issuance of SBI climbed to IDR38.2 trillion, up on both a q-o-q and y-o-y basis. Bank Indonesia conducts monthly auctions of SBI with maturities of 9 months and 1 year that comprise conventional and *shari'ah*–compliant SBI.

Corporate Bonds. The outstanding amount of Indonesia's LCY corporate bonds reached IDR253.9 trillion at the end of March on growth of 1.6% q-o-q and 11.6% y-o-y. Corporate bonds accounted for only 13.3% of the aggregate LCY bond stock at the end of March. The corporate bond segment remains dominated by conventional bond issues, which represent a 96.4% share of the total corporate total. Corporate *sukuk* accounted for only 3.6% of Indonesia's total LCY corporate bond stock at the end of March.

The top 30 LCY corporate bond issuers in Indonesia, which are presented in **Table 2**, had aggregate outstanding bonds valued at IDR193.2 trillion at the end of March, accounting for a 76.1% share of the total LCY corporate bond stock. Eleven state-owned firms were on the list, six of which landed among the top 10 in terms of size. Most firms on the top 30 list came from the banking and financial sectors. Also included on the list were capital-intensive industries such as energy, telecommunications, and property and real estate, among others.

Table 2: Top 30 Issuers of Local Currency Corporate Bonds in Indonesia

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (IDR billion)	LCY Bonds (USD billion)			
1.	Indonesia Eximbank	25,040	1.89	Yes	No	Banking
2.	PLN	13,268	1.00	Yes	No	Energy
3.	Indosat	11,642	0.88	No	Yes	Telecommunications
4.	Bank Tabungan Negara	10,950	0.83	Yes	Yes	Banking
5.	Adira Dinamika Multifinance	10,198	0.77	No	Yes	Finance
6.	Telekomunikasi Indonesia	8,995	0.68	Yes	Yes	Telecommunications
7.	Astra Sedaya Finance	8,345	0.63	No	No	Finance
8.	Perum Pegadaian	7,959	0.60	Yes	No	Finance
9.	Bank Rakyat Indonesia	7,650	0.58	Yes	Yes	Banking
10.	Bank Internasional Indonesia	7,380	0.56	No	Yes	Banking
11.	Federal International Finance	6,935	0.52	No	No	Finance
12.	Bank CIMB Niaga	6,865	0.52	No	Yes	Banking
13.	Bank Permata	6,482	0.49	No	Yes	Banking
14.	Jasa Marga	5,900	0.45	Yes	Yes	Toll Roads, Airports, and Harbors
15.	Bank Pan Indonesia	5,460	0.41	No	Yes	Banking
16.	Sarana Multigriya Finansial	5,296	0.40	Yes	No	Finance
17.	Agung Podomoro Land	4,575	0.35	No	Yes	Property and Real Estate
18.	Toyota Astra Financial Services	4,489	0.34	No	No	Finance
19.	Indomobil Finance Indonesia	4,059	0.31	No	No	Finance
20.	Indofood Sukses Makmur	4,000	0.30	No	Yes	Food and Beverages
21.	Bank Mandiri	3,500	0.26	Yes	Yes	Banking
22.	Medco-Energi International	3,500	0.26	No	Yes	Petroleum and Natural Gas
23.	Antam	3,000	0.23	Yes	Yes	Mining
24.	Bank OCBC NISP	2,785	0.21	No	Yes	Banking
25.	Waskita Karya	2,675	0.20	Yes	Yes	Building Construction
26.	Bumi Serpong Damai	2,665	0.20	No	Yes	Property and Real Estate
27.	Bank UOB Indonesia	2,500	0.19	No	No	Banking
28.	Summarecon Agung	2,500	0.19	No	Yes	Property and Real Estate
29.	Wahana Ottomitra Multiartha	2,303	0.17	No	Yes	Finance
30.	Bank Tabungan Pensiunan Nasional	2,260	0.17	No	Yes	Banking
Total Top 30 LCY Corporate Issuers		**193,176**	**14.59**			
Total LCY Corporate Bonds		**253,923**	**19.18**			
Top 30 as % of Total LCY Corporate Bonds		**76.1%**	**76.1%**			

IDR = Indonesian rupiah, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Indonesia Stock Exchange data.

The largest corporate bond issuer in Indonesia remained state-owned lender Indonesia Eximbank with bonds valued at IDR25.0 trillion at the end of March. In the second spot was state-owned energy firm PLN with an outstanding bond stock of IDR13.3 trillion. In the third spot was Indosat, a telecommunications company with bonds valued at IDR11.6 trillion.

In Q1 2016, new corporate debt issues totaled IDR13.8 trillion, up 30.1% q-o-q and 12.2% y-o-y. Only eight firms tapped the bond market for their funding requirements in Q1 2016, all of which came from the banking and financial sectors. A total of 20 new bond series were issued during the quarter, including one series of *sukuk mudharabah* (profit-sharing bonds) by Bank Nagari. Some of the largest corporate issuers in Q1 2016 are presented in **Table 3**. The largest corporate issuance came from Bank Rakyat Indonesia's multi-tranche bond sale worth IDR4.7 trillion. Indonesia Eximbank also added IDR4.0 trillion to its bond stock.

In terms of maturity, most of the new corporate debt issued in Q1 2016 was short-dated. About 13 out of the 20 new bond series during the quarter carried maturities of between more than 1 year and 3 years. The longest-dated was a bond series carrying a 7-year maturity. The rest of the new issues comprised one bond series with a maturity of 4 years and five bond series with a maturity of 5 years.

Table 3: Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (IDR billion)
Bank Rakyat Indonesia		
370-day bond	8.50	808
3-year bond	9.25	1,019
5-year bond	9.60	2,824
Indonesia Eximbank		
370-day bond	8.50	657
3-year bond	9.25	1,647
5-year bond	9.60	1,732
Indomobil Finance		
370-day bond	9.60	592
3-year bond	10.50	444
4-year bond	10.65	464
Adira Finance		
370-day bond	8.75	73
3-year bond	9.50	331
5-year bond	10.25	698
BFI Finance		
370-day bond	9.75	200
3-year bond	10.25	142
5-year bond	10.75	658

IDR = Indonesian rupiah, Q1 = first quarter.
Source: Indonesia Stock Exchange.

Foreign Currency Bonds. In March, the Indonesian government raised USD2.5 billion from a dual-tranche sale of USD-denominated *sukuk*. The bond sale comprised USD750 million of 5-year *sukuk* and USD1.75 billion of 10-year *sukuk*. The 5-year *sukuk* was priced at par with a profit rate of 3.4% and the 10-year *sukuk* was priced at par with a profit rate of 4.55%. The *sukuk* was well received with the order book reaching USD2.1 billion for the 5-year tranche and USD5.6 billion for the 10-year tranche.

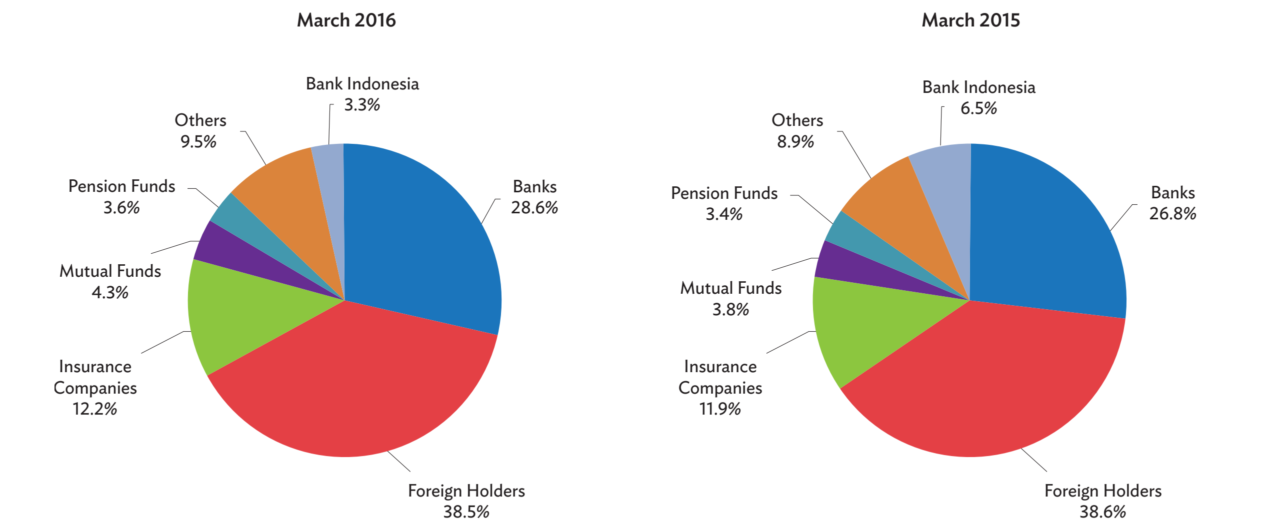
Also, Bank Indonesia issued a total of USD2.0 billion from the sale of USD-denominated foreign exchange (FX) bills between January to April. These FX bills are short-term tradable debt instruments issued in foreign currency (mostly in USD) by Bank Indonesia. The issuance of which is part of Bank Indonesia's measures to help stabilize IDR–USD exchange rate, and to strengthen foreign exchange reserves. Bank Indonesia first issued these FX bills in December 2015. Bank Indonesia will be issuing these USD-denominated FX bills regularly with tenors of between 1 month and 12 months.

Investor Profiles

Central Government Bonds. Foreign investors remained the largest holder of Indonesian LCY government bonds at the end of March **(Figure 2)**. Foreign investors accounted for a share of 38.5% of the central government total, which was broadly comparable to their share of 38.6% in the same period a year earlier. In absolute terms, overseas investors held IDR606.1 trillion worth of government bonds at the end of March. Foreign investors include nonresident private banks, fund and asset managers, securities firm, and insurance companies and pension funds, among others. These foreign institutions remain attracted to Indonesian LCY government bonds by their yields, the highest among emerging East Asian markets. In addition, 7.1% of Indonesian LCY government bonds are held by foreign governments and central banks as part of their foreign exchange reserves.

At the end of March, most foreign investors remained positioned at the long-end of the yield curve. Nearly

Figure 2: Local Currency Central Government Bonds Investor Profile

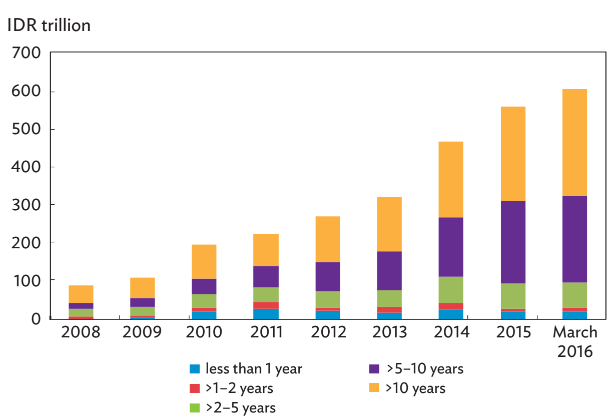


Source: Directorate General of Budget Financing and Risk Management, Ministry of Finance.

47% of foreign investor holdings were placed in long-dated maturities (more than 10 years), while 37.5% of their holdings were in medium-dated tenors (5 years to 10 years) **(Figure 3)**. Bonds with maturities of between more than 2 years and 5 years accounted for 10.8% of their holdings. Short-dated tenors (2 years or less) accounted for less than 5.0% of their aggregate holdings.

Banking institutions were the second largest holders of Indonesian central government bonds in Q1 2016. At the end of March, banks accounted for a 28.6% share compared with a share of 26.8% a year earlier. Insurance companies increased their holdings of central government bonds to 12.2% in Q1 2016 from 11.9% in Q4 2015. Other nonbank investors particularly mutual funds, pension funds, and other investors, also increased their holdings of central government bonds in Q1 2016, but their respective shares of the total remained small at less than 10.0%.

Figure 3: Foreign Holdings of Local Currency Central Government Bonds by Maturity



IDR = Indonesian rupiah.
Source: Directorate General of Budget Financing and Risk Management, Ministry of Finance.

On the other hand, Bank Indonesia's holdings of central government bonds dropped by about one-half to 3.3% of the total at the end of March from 6.5% a year earlier.

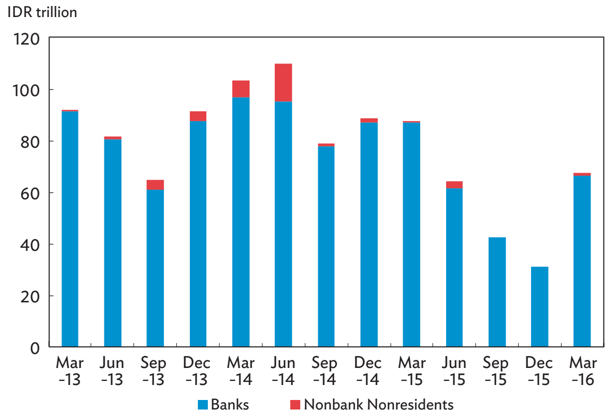
Central Bank Bills. The stock of central bank bills, or SBI, was mostly held by banking institutions at the end of March with a share of 98.7% **(Figure 4)**.

Ratings Update

In April, Ratings and Investment Information (R&I) affirmed Indonesia's sovereign credit rating at BBB– with a stable outlook. R&I took note of the following factors for its decision: (i) solid economic growth, (ii) a restrained budget deficit and healthy public debt levels, (iii) sound banking sector balance sheets, and (iv) the economy's resilience to external shocks.

Also in April, RAM Rating Services Berhad (RAM) affirmed its ratings for Indonesia at gBBB2(pi) with a stable outlook. According to RAM, the rating is reflective

Figure 4: Local Currency Central Bank Bills Investor Profile



IDR = Indonesian rupiah.
Notes:
1. For end-September and end-December 2015, nonresidents had no holdings of *Sertifikat* Bank Indonesia (SBI).
2. For end-March 2016, nonresidents held IDR0.9 trillion of SBI.
Source: Bank Indonesia.

of expected modest economic growth for Indonesia and commendable fiscal position.

In May, Fitch Ratings (Fitch) affirmed Indonesia's sovereign credit ratings at BBB- with a stable outlook. Fitch cited Indonesia's low government debt burden, favorable growth outlook, and limited sovereign exposure to banking sector risks as the key factors for its decision.

Policy, Institutional, and Regulatory Developments

Bank Indonesia Allows Islamic Banks to Hedge Foreign Exchange Risk

Bank Indonesia issued a new regulation allowing Islamic banks to engage in hedging activities. The rule, which took effect on 26 February, will allow Islamic banks to hedge their foreign exchange risks. Bank Indonesia expects that the new regulation will contribute to the further development of Islamic-based financial markets.

Bank Indonesia to Shift Policy Rate to 7-Day Repo Rate

On 15 April, Bank Indonesia announced that it would shift its policy rate from the reference rate to the 7-day repo rate. According to the Governor of Bank Indonesia, "the move aims to improve the effectiveness of monetary policy transmission." The move to the new policy rate will take effect on 19 August.

Republic of Korea

Yield Movements

Local currency (LCY) government bond yields in the Republic of Korea fell for most tenors between 1 March and 15 May. Bonds with yields of less than 1 year up to 10 years registered declines, while yields increased for 20-year and 30-year tenors **(Figure 1)**. The yield spread between the 2-year and 10-year tenors fell 2 basis points.

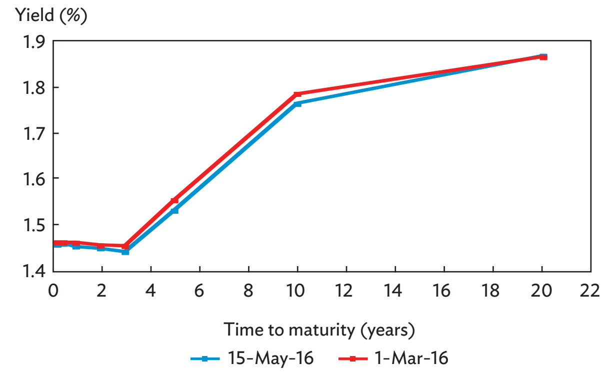
The policy interest rate in the Republic of Korea remained unchanged in the first 5 months of 2016, with the Bank of Korea's Monetary Policy Board deciding to maintain the base rate at 1.50% in meetings held on 14 January, 16 February, 10 March, 19 April, and 13 May.

The Republic of Korea's real gross domestic product (GDP) growth decelerated to 2.8% year-on-year (y-o-y) in the first quarter (Q1) of 2016 from 3.1% y-o-y in the fourth quarter (Q4) of 2015, according to the Bank of Korea's preliminary estimates released in April. The growth slowdown in Q1 2016 was due to a moderation in y-o-y increases in final consumption expenditure, gross fixed capital formation, and exports and imports of goods and services on the expenditure side; and a slackening in y-o-y output growth in the manufacturing, services, and utilities sectors on the production side. On a seasonally adjusted basis, real GDP growth slowed to 0.5% quarter-on-quarter (q-o-q) in Q1 2016 from 0.7% q-o-q in Q4 2015.

Consumer price inflation in the Republic of Korea hovered around 1.0% in the first 4 months of the year, with the y-o-y inflation rate at 0.8% in January, 1.3% in February, and 1.0% in both March and April. The month-on-month (m-o-m) inflation rate registered 0.0% in January, 0.5% in February, –0.3% in March, and 0.1% in April.

The Bank of Korea reported in April that it had revised downward its 2016 economic outlook for the Republic of Korea, lowering its annual GDP growth forecast to 2.8% from a previous projection of 3.0% made in January. The central bank also lowered its 2016 forecast for headline consumer price inflation to 1.2% from 1.4%.

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



Source: Based on data from Bloomberg LP.

Size and Composition

The Republic of Korea's LCY bond market size continued to grow in Q1 2016, with the outstanding bond stock climbing 1.2% q-o-q and 7.6% y-o-y to reach KRW2,044.4 trillion (USD1,788 trillion) at the end of March **(Table 1)**. In the LCY government bond market, the amount of outstanding bonds rose 2.1% q-o-q and 6.3% y-o-y to KRW839.6 trillion, led by relatively strong growth in central government bonds. The issuance of LCY government bonds in Q1 2016 stood at KRW86.4 trillion, up 2.6% q-o-q amid quarterly increases in the issuance of both central bank and central government bonds. LCY government bond issuance was down 5.4% y-o-y due to a relatively sharp decline in central bank bond issues.

In the LCY corporate bond market, the outstanding stock of bonds rose 0.5% q-o-q and 8.5% y-o-y in Q1 2016, reaching a total of KRW1,204.8 trillion at the end of March. In contrast, issuance of LCY corporate bonds fell 15.2% q-o-q and 12.7% y-o-y to KRW88.5 trillion in Q1 2016.

The top 30 issuers of LCY corporate bonds had a cumulative outstanding bond stock worth KRW775.7 trillion at the end of March, constituting about 64% of the total LCY corporate bond market **(Table 2)**.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	KRW	USD	KRW	USD	KRW	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,900,194**	**1,712**	**2,020,522**	**1,720**	**2,044,415**	**1,788**	**2.3**	**8.3**	**1.2**	**7.6**
Government	789,741	712	821,993	700	839,618	734	3.2	16.7	2.1	6.3
Central Bank Bonds	184,940	167	180,930	154	181,390	159	3.9	8.3	0.3	(1.9)
Central Government Bonds	513,685	463	548,724	467	566,919	496	3.8	10.1	3.3	10.4
Industrial Finance Debentures	91,116	82	92,340	79	91,309	80	(1.0)	132.3	(1.1)	0.2
Corporate	1,110,453	1,001	1,198,529	1,020	1,204,797	1,054	1.6	3.0	0.5	8.5

( ) = negative, KRW = Korean won, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period local currency–USD rates are used.
3. Growth rates are calculated from local currency base and do not include currency effects.
4. Central government bonds include Korea Treasury bonds, National Housing bonds, and Seoul Metro bonds.
Sources: EDAILY *BondWeb* and The Bank of Korea.

Korea Housing Finance Corporation continued to be the largest issuer of LCY corporate bonds. Five of the most notable LCY corporate bonds issued in Q1 2016 were short-term bonds issued by two domestic banks **(Table 3)**.

Investor Profile

Insurance companies and pension funds remained the largest investor group in the Republic of Korea's LCY government bond market, accounting for a combined 32.6% share of the total market at the end of 2015 **(Figure 2)**. Insurance companies and pension funds also had the largest y-o-y increase in the share of LCY government bond holdings among all investor groups. Nonfinancial corporations had the smallest share of LCY government bond holdings among all investor groups at the end of 2015, comprising only 0.6% of the market.

Insurance companies and pension funds were also the largest investor group in the LCY corporate bond market at the end of 2015, with a 37.3% share of the market, and recorded the fastest rate of annual growth in the share of holdings among all investor groups **(Figure 3)**. Foreign investors held the smallest share of the LCY corporate bond market at the end of December at only 0.2%.

Foreign investors' net LCY bond sales in the Republic of Korea soared to KRW4,149 billion in Q1 2016 from KRW605 billion in Q4 2015, largely driven by net bond sales of KRW487 billion in January and KRW4,232 billion in February. In March and April, on the other hand, foreign investors were responsible for net bond investments totaling KRW570 billion and KRW631 billion, respectively **(Figure 4)**.

Ratings Update

Fitch Ratings (Fitch) announced in February that it had affirmed the Republic of Korea's long-term foreign currency (FCY) issuer default rating at AA– and its long-term LCY issuer default rating at AA, with a stable outlook for both. The rating agency also affirmed the Republic of Korea's senior unsecured FCY- and LCY-denominated bonds at AA– and AA, respectively. Fitch stated that its rating decision was based on its assessment of the Republic of Korea as having a strong macroeconomic environment and robust external finances. These factors were balanced by the Republic of Korea's geopolitical risk and low gross domestic product per capita relative to its peers.

Policy, Institutional, and Regulatory Developments

Financial Services Commission to Invigorate Financial Advisory Services

The Republic of Korea's Financial Services Commission (FSC) announced in March its plan to amend regulations to invigorate the Republic of Korea's financial advisory services sector. The FSC will amend the Enforcement Decree of the Financial Investment Services and Capital Markets Act in the first half of 2016 in order to create a new registration category for financial advisers covering certain types of financial products—such as derivative-

Table 2: Top 30 Issuers of Local Currency Corporate Bonds in the Republic of Korea

	Issuers	Outstanding Amount		State-Owned	Listed on		Type of Industry
		LCY Bonds (KRW billion)	LCY Bonds (USD billion)		KOSPI	KOSDAQ	
1.	Korea Housing Finance Corporation	94,178	82.4	Yes	No	No	Housing Finance
2.	NH Investment & Securities	59,371	51.9	Yes	Yes	No	Securities
3.	KDB Daewoo Securities	56,470	49.4	Yes	Yes	No	Securities
4.	Korea Land & Housing Corporation	52,275	45.7	Yes	No	No	Real Estate
5.	Korea Investment and Securities	48,658	42.6	No	No	No	Securities
6.	Mirae Asset Securities	40,652	35.6	No	Yes	No	Securities
7.	Industrial Bank of Korea	39,543	34.6	Yes	Yes	No	Banking
8.	Hana Financial Investment	34,900	30.5	No	No	No	Securities
9.	Korea Deposit Insurance Corporation	31,230	27.3	Yes	No	No	Insurance
10.	Korea Electric Power Corporation	25,030	21.9	Yes	Yes	No	Electricity, Energy, and Power
11.	Hyundai Securities	22,905	20.0	No	No	No	Securities
12.	Korea Expressway	22,620	19.8	Yes	No	No	Transport Infrastructure
13.	Korea Rail Network Authority	19,390	17.0	Yes	No	No	Transport Infrastructure
14.	Kookmin Bank	18,497	16.2	No	No	No	Banking
15.	Shinhan Bank	18,423	16.1	No	No	No	Banking
16.	Samsung Securities	17,682	15.5	No	Yes	No	Securities
17.	Woori Bank	16,715	14.6	Yes	Yes	No	Banking
18.	Daishin Securities	16,345	14.3	No	Yes	No	Securities
19.	Korea Gas	15,499	13.6	Yes	Yes	No	Gas Utility
20.	NongHyup Bank	14,800	12.9	Yes	No	No	Banking
21.	Small & medium Business Corporation	13,830	12.1	Yes	No	No	SME Development
22.	Korea Eximbank	12,750	11.2	Yes	No	No	Banking
23.	Standard Chartered First Bank Korea	12,120	10.6	No	No	No	Banking
24.	Korea Student Aid Foundation	12,020	10.5	Yes	No	No	Student Loan
25.	K-Water	10,594	9.3	Yes	No	No	Water
26.	Hyundai Capital Services	10,499	9.2	No	No	No	Consumer Finance
27.	Shinhan Card	9,889	8.6	No	No	No	Credit Card
28.	Korea Railroad Corporation	9,820	8.6	Yes	No	No	Transport Infrastructure
29.	Shinyoung Securities	9,801	8.6	No	Yes	No	Securities
30.	NongHyup	9,190	8.0	Yes	No	No	Financial
Total Top 30 LCY Corporate Issuers		**775,696.0**	**678.4**				
Total LCY Corporate Bonds		**1,204,797.0**	**1,053.7**				
Top 30 as % of Total LCY Corporate Bonds		**64.4%**	**64.4%**				

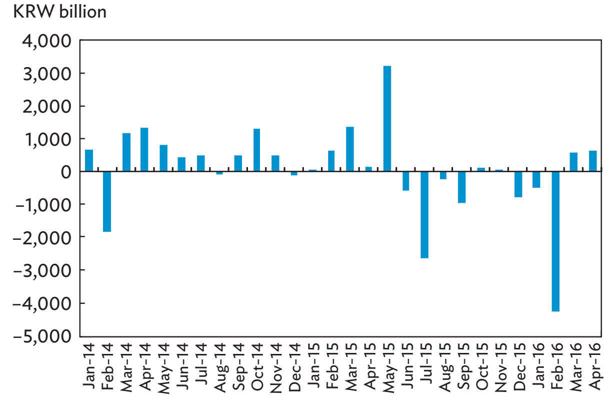
KOSDAQ = Korean Securities Dealers Automated Quotations, KOSPI = Korea Composite Stock Price Index, KRW = Korean won, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Sources: *AsianBondsOnline* calculations based on Bloomberg and EDAILY *BondWeb* data.

Table 3: Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (KRW billion)
NongHyup Bank		
0.25-year bond	1.55	770
0.25-year bond	1.54	450
0.5-year bond	1.54	460
1-year bond	1.55	750
Industrial Bank of Korea		
1-year bond	1.54	550

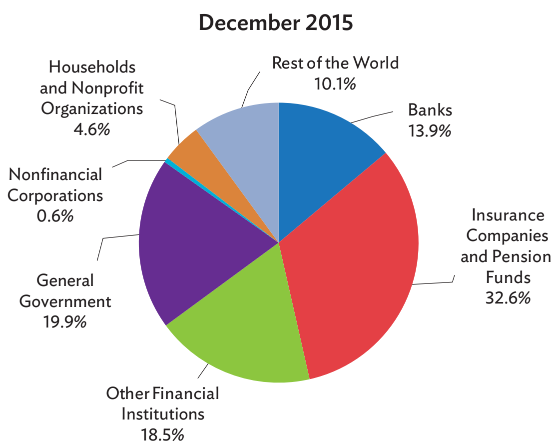
KRW = Korean won, Q1 = first quarter.
Note: Coupon rates for the bonds of NongHyup Bank and Industrial Bank of Korea are indicative yields as of end-March 2016.
Source: Based on data from Bloomberg LP.

Figure 4: Net Foreign Investment in Local Currency Bonds in the Republic of Korea



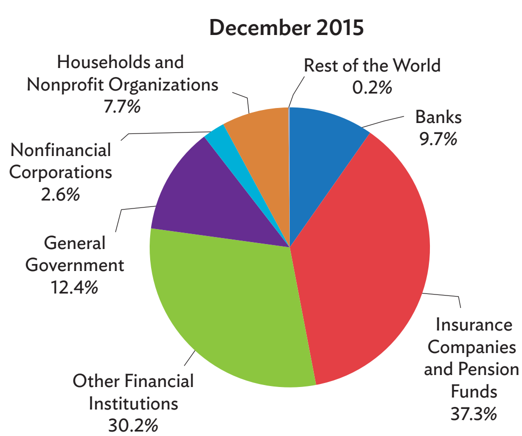
KRW = Korean won.
Source: Financial Supervisory Service.

Figure 2: Local Currency Government Bonds Investor Profile



Sources: *AsianBondsOnline* and The Bank of Korea.

Figure 3: Local Currency Corporate Bonds Investor Profile



Sources: *AsianBondsOnline* and The Bank of Korea.

linked securities, funds, and savings products—and to lower their capital requirements to KRW100 million from KRW500 million. Planned amendments to the Financial Investment Services and Capital Markets Act are also aimed at allowing eligible “robo-advisors” to directly render front-office services to their clients. The FSC has plans to (i) propose amendments to the Regulation on Financial Investment Business that will introduce detailed requirements for Independent Financial Advisers, and (ii) create best practice guidelines for financial advisory providers for investor protection purposes.

Financial Services Commission Outlines Corporate Restructuring Plan

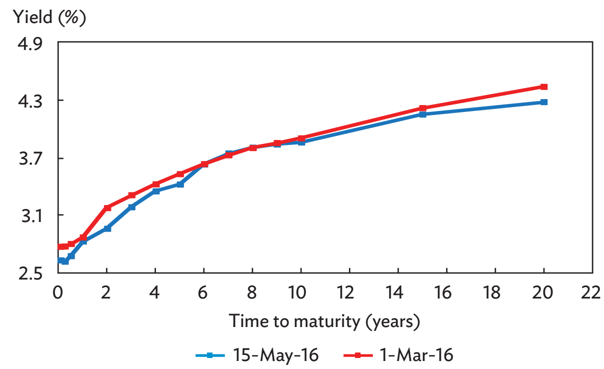
The FSC announced its corporate restructuring plan in April, focusing on financially distressed firms and vulnerable sectors. The plan has three tracks that focus on (i) cyclically vulnerable sectors such as the shipbuilding and shipping industries, (ii) main debtor groups and individual companies, and (iii) oversupplied sectors such as the petrochemical and steel industries.

Malaysia

Yield Movements

Between 1 March and 15 May, Malaysian local currency (LCY) government bond yields fell for most tenors, particularly at the short-end of the curve, amid market expectations that the United States (US) Federal Reserve would delay further increases in its policy rate **(Figure 1)**. Yields for tenors between 1 month and 6 months fell between 13 basis points (bps) and 16 bps, and yields for tenors between 1 year and 5 years fell 4–22 bps. Yields for bonds with tenors of between 9 years and 20 years fell 2–16 bps. The 2-year versus 10-year spread rose from 73 bps to 90 bps.

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



Source: Based on data from Bloomberg LP.

Declining yields were also reflective of renewed investor confidence in the Malaysian local bond market and the Malaysian ringgit. The rebound in oil prices since the start of the year provided support to the domestic bond market and the local currency. However, the fall in yields and the appreciation of the Malaysian ringgit were capped during the latter part of April amid reports of 1Malaysia Development Berhad's (1MDB) nonpayment of interest due to bondholders.

The Malaysian ringgit appreciated 6.1% year-to-date through 15 May, reaching a high of MYR3.87–USD1 on 20 April, after depreciating 22.8% in full-year 2015. Data from Bank Negara Malaysia (BNM) also showed a surge in foreign holdings of central government debt securities in the first 4 months of the year to MYR199 billion in April from MYR179 billion in January.

Inflation inched up in the first 2 months of the year to 4.2% year-on-year (y-o-y) in February, before easing to 2.6% y-o-y in March and further to 2.1% y-o-y in April. Benign inflation allowed BNM to maintain the overnight policy rate at 3.25% at its 19 May policy meeting. Inflation is projected to trend lower in 2016 due to low energy and commodity prices. The central bank also expects Malaysia's economy to grow 4.0%–4.5% y-o-y in 2016 and will continue to be supported by strong domestic demand.

Malaysia's gross domestic product growth slowed to 4.2% y-o-y in the first quarter (Q1) of 2016 from 4.5% y-o-y in the fourth quarter (Q4) of 2015. The slower rate of expansion was due to weaker growth in gross fixed capital formation of 0.1% y-o-y in Q1 2016 compared with 2.7% y-o-y in the previous quarter. Exports also contracted 0.5% y-o-y in Q1 2016, while imports increased 1.3% y-o-y. Government spending and private final consumption expenditure both posted higher annual increases in Q1 2016 compared with the previous quarter. By sector, all industries posted annual increases except for agriculture, which contracted 3.8% y-o-y in Q1 2016 following growth of 1.5% y-o-y in Q4 2015.

Size and Composition

The Malaysian LCY bond market expanded 1.9% quarter-on-quarter (q-o-q) to MYR1,141 billion (USD293 billion) at the end of March, led by growth in the government bond sector **(Table 1)**. On a y-o-y basis, the LCY bond market rose 6.3% in Q1 2016. Government bonds outstanding totalled MYR628 billion at the end of March, while corporate bonds summed to MYR512 billion. *Sukuk* (Islamic bonds) continued to comprise the majority of the LCY bond market, with a share of 54% of total bonds outstanding at the end of March.

Government Bonds. LCY government bonds outstanding rose 2.7% on both a q-o-q and y-o-y basis to close at MYR628 billion at the end of March. The rise was solely the result of an increase in the outstanding stock of central government bonds, particularly Malaysian

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	MYR	USD	MYR	USD	MYR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,073**	**290**	**1,119**	**261**	**1,141**	**293**	**(2.7)**	**2.1**	**1.9**	**6.3**
Government	612	165	612	142	628	161	(5.4)	(0.3)	2.7	2.7
Central Government Bonds	531	143	559	130	579	148	2.2	5.7	3.5	9.0
of which: *Sukuk*	193	52	214	50	221	57	4.0	8.4	3.0	14.2
Central Bank Bills	57	15	25	6	22	6	(46.8)	(42.3)	(12.2)	(62.3)
of which: *Sukuk*	19	5	1	0.1	0	0	(54.4)	(52.1)	(100.0)	(100.0)
Sukuk Perumahan Kerajaan	24	7	28	7	28	7	19.6	89.1	0.0	16.4
Corporate	461	125	507	118	512	131	1.0	5.4	1.0	11.1
of which: *Sukuk*	328	89	361	84	366	94	1.6	10.4	1.4	11.5

( ) = negative, MYR = Malaysian ringgit, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period local currency–USD rate is used.
3. Growth rates are calculated from local currency base and do not include currency effects.
4. Sukuk Perumahan Kerajaan are Islamic bonds issued by the Government of Malaysia to refinance funding for housing loans to government employees and to extend new housing loans.
Sources: Bank Negara Malaysia Fully Automated System for Issuing/Tendering (FAST) and Bloomberg LP.

Government Securities and Government Investment Issues.

Total government bond issuance, however, fell 23.3% q-o-q to MYR29 billion in Q1 2016 from MYR37 billion in Q4 2015, as BNM did not issue any central bank bills in the most recent quarter. There was also less issuance of Malaysian Government Securities in Q1 2016 compared with the previous quarter. Issuance of Government Investment Issues and Treasury bills, on the other hand, was up in Q1 2016.

Corporate Bonds. Total outstanding LCY corporate bonds increased 1.0% q-o-q in Q1 2016 to MYR512 billion at the end of March. The ratio of corporate *sukuk* to total corporate bonds outstanding remained steady at 71%.

Table 2 provides a breakdown of the top 30 LCY corporate bond issuers in Malaysia, whose total LCY bonds outstanding stood at MYR281.5 billion at the end of March, representing 54.9% of the LCY corporate bond market. Financial firms, including banks, comprised 16 of the 30 largest corporate bond issuers, with bonds outstanding worth MYR154.7 billion. Highway operator Project Lebuhraya Usahasama remained the largest issuer with outstanding bonds valued at MYR30.6 billion.

Issuance of corporate bonds started the year at a moderate pace as total issuance fell to MYR34 billion in Q1 2016 from MYR57 billion in Q4 2015. *Sukuk* accounted for 55.4% of total issuance, while conventional bonds registered a share of 44.6%. By type of instrument, Islamic medium-term notes had the highest share of total issuance at 34.9%, followed by conventional commercial paper with a share of 31.6%. **Table 3** lists notable corporate bond issuances in Q1 2016.

The largest corporate issuers in Q1 2016 were from government-owned entities in the financial, utilities, and transport sectors. Prasarana Malaysia Berhad, which owns the largest public transportation company in Malaysia, issued MYR3.05 billion worth of *sukuk* in five tranches with maturities ranging from 7 years to 25 years. Sime Darby, with major holdings in palm oil plantations, issued MYR2.2 billion worth of perpetual *sukuk* with a non-call option of 10 years and a profit rate of 5.65%. Pengurusan Air SPV, a water services company, issued *sukuk* comprising a MYR1 billion 7-year tranche and a MYR750 million 10-year tranche with coupon rates of 4.43% and 4.63%, respectively.

Foreign Currency Bonds. In April, the Government of Malaysia issued USD1.5 billion worth of dual-tranche US dollar *sukuk* via a special purpose vehicle, Malaysia *Sukuk* Global Berhad. The issue comprised a USD1 billion 10-year tranche and a USD500 million 30-year tranche. The 10-year and 30-year *sukuk* were priced at 3.18% and 4.08%, respectively.

Table 2: Top 30 Issuers of Local Currency Corporate Bonds in Malaysia

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (MYR billion)	LCY Bonds (USD billion)			
1.	Project Lebuhraya Usahasama	30.6	7.8	No	No	Transport, Storage, and Communications
2.	Cagamas	26.1	6.7	Yes	No	Finance
3.	Danainfra Nasional	20.7	5.3	Yes	No	Finance
4.	Prasarana	20.6	5.3	Yes	No	Transport, Storage, and Communications
5.	Khazanah	20.0	5.1	Yes	No	Finance
6.	Maybank	14.9	3.8	No	Yes	Banking
7.	Pengurusan Air	14.2	3.7	Yes	No	Energy, Gas, and Water
8.	Perbadanan Tabung Pendidikan Tinggi Nasional	11.0	2.8	Yes	No	Finance
9.	CIMB Bank	9.1	2.3	No	No	Banking
10.	Jimah East Power	9.0	2.3	Yes	No	Energy, Gas, and Water
11.	Public Bank	8.6	2.2	No	No	Banking
12.	Sarawak Energy	8.5	2.2	Yes	No	Energy, Gas, and Water
13.	Aman Sukuk	6.3	1.6	Yes	No	Construction
14.	Rantau Abang Capital	6.0	1.5	Yes	No	Finance
15.	Danga Capital	5.5	1.4	Yes	No	Finance
16.	RHB Bank	5.4	1.4	No	No	Banking
17.	Turus Pesawat	5.3	1.4	Yes	No	Transport, Storage, and Communications
18.	BGSM Management	5.1	1.3	No	No	Transport, Storage, and Communications
19.	1Malaysia Development	5.0	1.3	Yes	No	Finance
20.	Manjung Island Energy	4.9	1.2	No	No	Energy, Gas, and Water
21.	CIMB Group Holdings	4.8	1.2	Yes	No	Finance
22.	Bank Pembangunan Malaysia	4.8	1.2	Yes	No	Banking
23.	YTL Power International	4.8	1.2	No	Yes	Energy, Gas, and Water
24.	AM Bank	4.5	1.2	No	Yes	Banking
25.	Putrajaya Holdings	4.5	1.2	Yes	No	Property and Real Estate
26.	Celcom Networks	4.5	1.2	No	No	Transport, Storage, and Communications
27.	Malakoff Power	4.4	1.1	No	No	Energy, Gas, and Water
28.	Cagamas MBS	4.2	1.1	Yes	No	Finance
29.	Sime Darby	4.2	1.1	Yes	Yes	Finance
30.	Tanjung Bin Power	4.0	1.0	No	No	Energy, Gas, and Water
Total Top 30 LCY Corporate Issuers		**281.5**	**72.2**			
Total LCY Corporate Bonds		**512.3**	**131.4**			
Top 30 as % of Total LCY Corporate Bonds		**54.9%**	**54.9%**			

LCY = local currency, MYR = Malaysian ringgit, USD = United States dollar.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Bank Negara Malaysia Fully Automated System for Issuing/Tendering (FAST) data.

Table 3 : Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (MYR million)
Prasarana		
7-year Islamic MTN	4.29	500
10-year Islamic MTN	4.47	500
15-year Islamic MTN	4.75	700
20-year Islamic MTN	4.97	600
25-year Islamic MTN	5.07	755
Sime Darby		
10-year Islamic MTN	5.65	2,200
Pengurusan Air		
7-year Islamic MTN	4.43	1,000
10-year Islamic MTN	4.63	750
Danga Capital		
10-year Islamic MTN	4.60	1,500
Cagamas		
3-year MTN	4.10	1,120
Maybank Islamic		
10-year bond	4.65	1,000

MTN = medium-term note, MYR = Malaysian ringgit, Q1 = first quarter.
Source: Bank Negara Malaysia Bond Info Hub.

Investor Profile

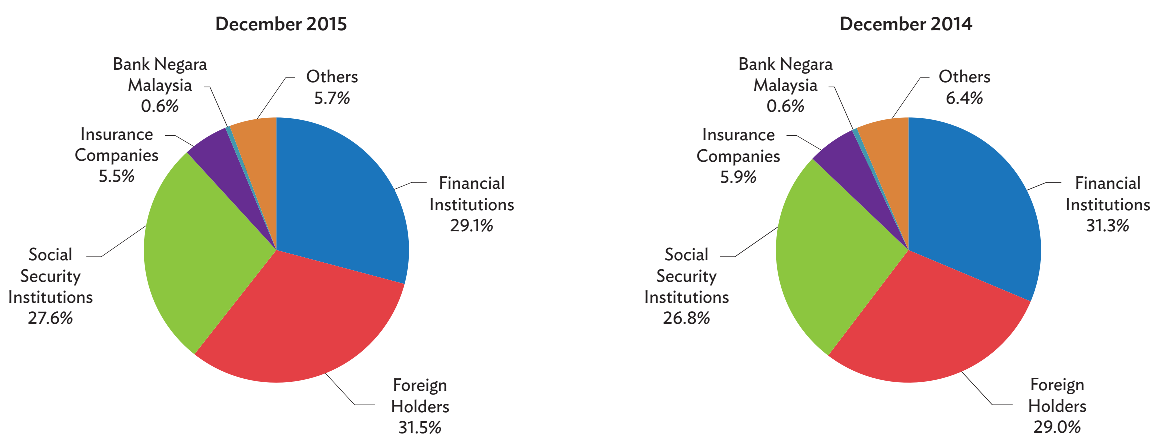
At the end of December, foreign investors comprised the largest share of the government bond market at 31.5%, surpassing financial institutions—including banks, development financial institutions, and nonbank financial institutions—whose share declined to 29.1% from 31.3% at the end of December 2014 **(Figure 2)**. Social security institutions remained the third largest holders of government bonds with a share of 27.6%, which was slightly higher than their share of 26.8% a year earlier. Meanwhile, the share of insurance companies' government bond holdings fell to 5.5% from 5.9% a year earlier.

Domestic banks (commercial and Islamic) remained the largest investor group in LCY corporate bonds at the end of March 2016 with a share of 46.5% **(Figure 3)**. Compared with March 2015, the share of domestic banks increased 1.7 percentage points, while that of foreign banks decreased 2.2 percentage points to 5.7%. Life insurance companies remained the second largest holders of LCY corporate bonds with a share of 31.8%, up from 30.6% a year earlier.

Ratings Update

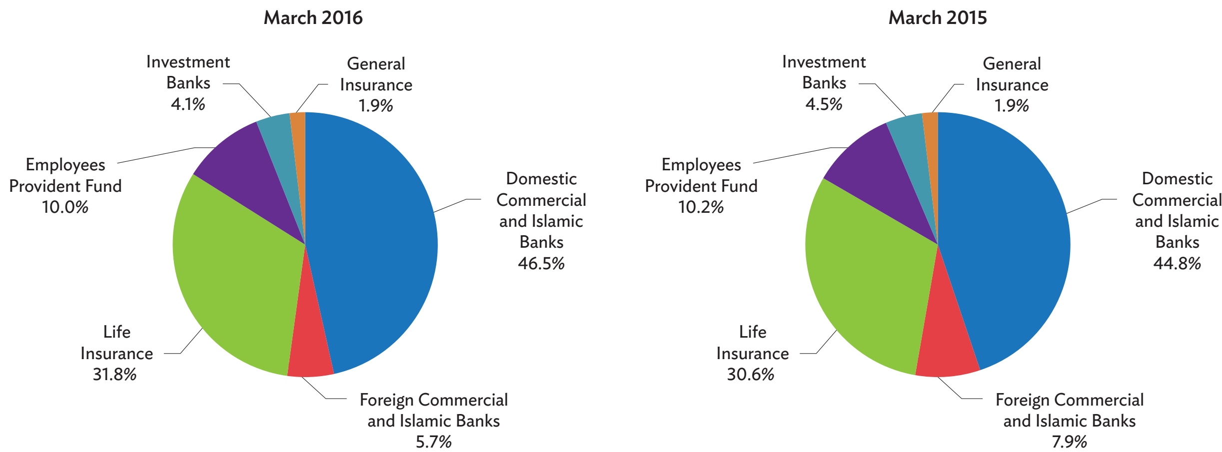
In February, Fitch Ratings (Fitch) affirmed its long-term foreign currency issuer default rating of A– and long-term local currency issuer default rating of A for Malaysia, with a stable outlook for both ratings. Fitch cited as reasons for its decision Malaysia's commitment to fiscal consolidation, the stabilization of the Malaysian ringgit and foreign reserves, and strong (despite slower) economic growth relative to its A-rated peers.

Figure 2: Local Currency Government Bonds Investor Profile



Note: "Others" include statutory bodies, nominees and trustee companies, and cooperatives and unclassified items.
Source: Bank Negara Malaysia.

Figure 3: Local Currency Corporate Bonds Investor Profile



Note: The Employees Provident Fund's bond holdings data is as of end-December 2015.
Source: Bank Negara Malaysia and Employees Provident Fund.

In March, S&P Global Ratings (S&P) affirmed its A–/A-2 foreign currency and A/A-1 local currency sovereign credit ratings for Malaysia. S&P also maintained a stable outlook on both ratings. S&P cited Malaysia's strong external position and monetary flexibility as reasons for its decision. S&P expects the Government of Malaysia to continue its policies to achieve balanced economic growth despite ongoing issues concerning 1MDB.

Policy, Institutional, and Regulatory Developments

Bank Negara Malaysia and Bank of Thailand Launch Local Currency Settlement Framework

In March, BNM and the Bank of Thailand announced the launch of a local currency settlement framework intended to promote bilateral trade between the two economies. The framework will allow Malaysian and Thai businesses greater access to local currency and other financial services in appointed banks in both markets. The framework follows a memorandum of understanding signed between the two central banks in August 2015.

Securities Commission Malaysia Introduces Regulatory Framework for Peer-to-Peer Financing Program

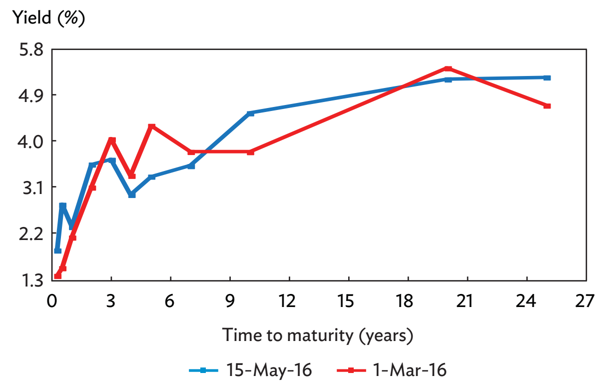
In April, the Securities Commission Malaysia introduced the regulatory framework for a peer-to-peer financing (P2P) program, including requirements for the registration of a P2P platform. The P2P electronic platform facilitates access to market-based financing for eligible private and unlisted companies. The framework also outlines the duties and responsibilities of a P2P operator, as well as the types of issuers and investors who can participate in the platform.

Philippines

Yield Movements

Between 1 March and 15 May, local currency (LCY) government bond yields in the Philippines rose for the 0.25-, 0.5-, 1-, 2-, 10-, and 25-year tenors; and fell for the 3-, 4-, 5-, 7-, and 20-year tenors **(Figure 1)**. The biggest increase was reflected in the 0.5-year tenor, which gained 123 basis points (bps), and the largest drop was seen in the 5-year tenor, which declined 99 bps. The yield spread between the 2-year and 10-year tenors widened by 31 bps.

Figure 1: Philippines' Benchmark Yield Curve—Local Currency Government Bonds



Source: Based on data from Bloomberg LP.

Policy interest rates in the Philippines remained unchanged in the first 5 months of 2016, with the Monetary Board of the Bangko Sentral ng Pilipinas (BSP) deciding during its meetings on 11 February, 23 March, and 12 May to maintain the overnight borrowing (reverse repurchase) facility at 4.00% and the overnight lending (repurchase) facility at 6.00%.

Real gross domestic product in the Philippines grew 6.9% year-on-year (y-o-y) in the first quarter (Q1) of 2016, bolstered by relatively strong output growth in industry and services, as well as increased domestic and foreign demand.

Consumer price inflation in the Philippines stood at 1.1% y-o-y in April, which was unchanged from March. In January and February, the y-o-y inflation rates were 1.3% and 0.9%, respectively. The BSP described Philippine headline inflation in Q1 2016 as being subdued, with the y-o-y inflation rate in the January–March period averaging 1.1%, which was below the government's 2016 inflation target of 3.0% ±1.0 percentage point.

Size and Composition

The amount of LCY bonds outstanding in the Philippines fell 1.1% quarter-on-quarter (q-o-q) in Q1 2016 but rose 0.5% y-o-y to reach PHP4,706 billion (USD102 billion) at

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

	Outstanding Amount (billion)						**Growth Rate** (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	PHP	USD	PHP	USD	PHP	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**4,681**	**105**	**4,760**	**101**	**4,706**	**102**	**0.4**	**5.6**	**(1.1)**	**0.5**
Government	3,917	88	3,946	84	3,893	85	0.6	4.5	(1.3)	(0.6)
Treasury Bills	278	6	264	6	279	6	(1.2)	(5.1)	5.5	0.2
Treasury Bonds	3,547	79	3,596	77	3,539	77	1.1	6.2	(1.6)	(0.2)
Others	91	2	86	2	76	2	(11.6)	(21.1)	(12.2)	(17.3)
Corporate	765	17	814	17	813	18	(0.4)	11.6	(0.1)	6.3

( ) = negative, PHP = Philippine peso, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg end-of-period local currency–USD rates are used.
3. Growth rates are calculated from a local currency base and do not include currency effects.
4. "Others" comprise bonds issued by government agencies, entities, and corporations for which repayment is guaranteed by the Government of the Philippines. This includes bonds issued by Power Sector Assets and Liabilities Management (PSALM) and the National Food Authority, among others.
5. Peso Global Bonds (PHP-denominated bonds payable in US dollars) are not included.
Sources: Bloomberg LP and Bureau of the Treasury.

the end of March **(Table 1)**. The q-o-q contraction largely stemmed from decreases in the existing stock of LCY government bonds, particularly Treasury bonds and bonds issued by government-owned or -controlled corporations. The y-o-y uptick was driven by relatively buoyant y-o-y growth in LCY corporate bonds. At the end of March, the stocks of LCY government bonds and LCY corporate bonds constituted 83% and 17%, respectively, of total LCY bonds outstanding.

In the LCY corporate bond market, banks remained the largest issuer group, accounting for 28.2% of LCY corporate bonds outstanding at the end of March, followed by property firms with 23.6% **(Figure 2)**. Compared with 12 months earlier, the share of banks fell while that of property firms rose.

The top 30 Philippine corporate bond issuers at the end of March had cumulative LCY bonds outstanding of PHP719.9 billion, which represented about 89% of the Philippines' LCY corporate bond market **(Table 2)**.

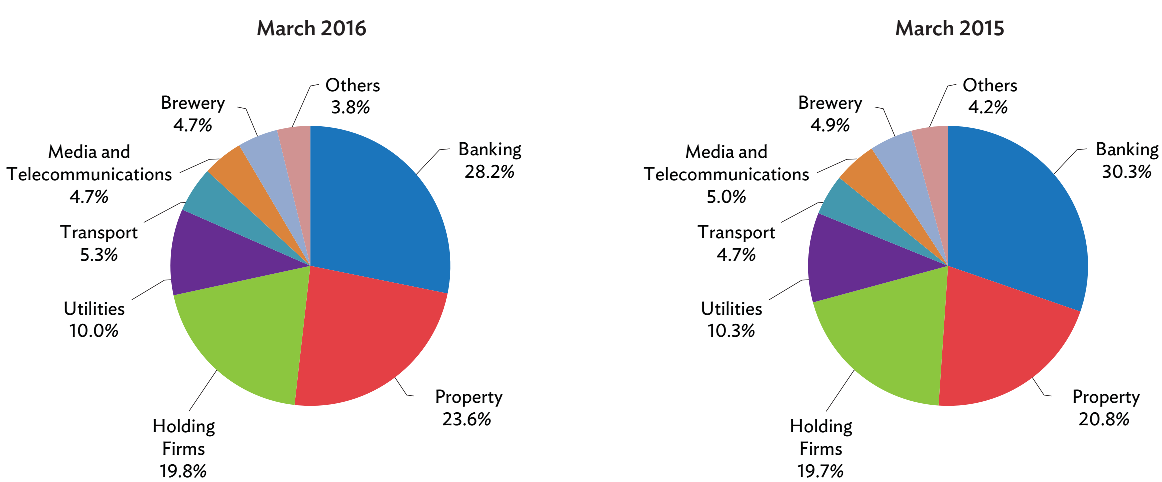
Philippine LCY bond issuance in Q1 2016 totaled PHP189.7 billion, up 13.6% q-o-q and 29.0% y-o-y. LCY government bond issuance in Q1 2016 comprised Treasury bills and bonds worth PHP177.2 billion, up 28.4% q-o-q and 31.2% y-o-y.

LCY corporate bond issuance in Q1 2016 reached PHP12.5 billion, which was down 56.9% q-o-q and up 4.2% y-o-y. Three Philippine companies tapped the corporate bond market for funding purposes in Q1 2016: (i) Ayala Land, which issued a PHP8.0 billion 10-year bond at a 4.85% coupon in March; (ii) Phoenix Petroleum, which raised PHP3.5 billion from a triple-tranche commercial paper sale in January; and (iii) SL Agritech, which raised PHP1.0 billion from a triple-tranche commercial paper sale in January **(Table 3)**.

Investor Profile

Banks and investment houses were the largest investor group in LCY government securities in the Philippines at the end of March, accounting for 37.1% of the total market. This was followed by contractual savings institutions and tax-exempt institutions, which held 29.8% of LCY government bonds outstanding **(Figure 3)**. In the 12-month period through the end of March 2016, banks and investment houses, contractual savings institutions and tax-exempt institutions, and other government securities holders recorded y-o-y increases in their shares of LCY government bond holdings. Brokers, custodians, and depositories; funds managed by the Bureau of the Treasury; and government-owned or -controlled corporations and local government units experienced y-o-y declines.

Figure 2: Local Currency Corporate Bonds Outstanding by Sector



Source: Based on data from Bloomberg LP.

Table 2: Top 30 Issuers of Local Currency Corporate Bonds in the Philippines

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (PHP billion)	LCY Bonds (USD billion)			
1.	Ayala Land	66.2	1.4	No	Yes	Property
2.	Metrobank	46.8	1.0	No	Yes	Banking
3.	SM Prime	45.0	1.0	No	Yes	Property
4.	Ayala Corporation	40.0	0.9	No	Yes	Holding Firms
5.	San Miguel Brewery	37.8	0.8	No	No	Brewing
6.	BDO Unibank	37.5	0.8	No	Yes	Banking
7.	Philippine National Bank	34.6	0.8	No	Yes	Banking
8.	Aboitiz Equity Ventures	32.0	0.7	No	Yes	Holding Firms
9.	Filinvest Land	32.0	0.7	No	Yes	Property
10.	JG Summit	30.0	0.7	No	Yes	Holding Firms
11.	SM Investments	28.3	0.6	No	Yes	Holding Firms
12.	Meralco	23.5	0.5	No	Yes	Electricity, Energy, and Power
13.	Security Bank	23.0	0.5	No	Yes	Banking
14.	Rizal Commercial Banking Corporation	22.1	0.5	No	Yes	Banking
15.	GT Capital	22.0	0.5	No	Yes	Holding Firms
16.	South Luzon Tollway	18.3	0.4	No	No	Transport
17.	Globe Telecom	17.0	0.4	No	Yes	Telecommunications
18.	East West Bank	16.8	0.4	No	Yes	Banking
19.	Maynilad Water Services	16.3	0.4	No	No	Water and Wastewater Services
20.	MCE Leisure (Philippines)	15.0	0.3	No	No	Casinos and Gaming
21.	Philippine Long Distance Telephone Company	15.0	0.3	No	Yes	Telecommunications
22.	Union Bank of the Philippines	14.0	0.3	No	Yes	Banking
23.	Manila North Tollways	12.9	0.3	No	No	Transport
24.	First Metro Investment	12.0	0.3	No	No	Banking
25.	Robinsons Land	12.0	0.3	No	Yes	Property
26.	MTD Manila Expressway	11.5	0.3	No	No	Transport
27.	Energy Development Corporation	10.5	0.2	No	Yes	Electricity, Energy, and Power
28.	Aboitiz Power	10.0	0.2	No	Yes	Electricity, Energy, and Power
29.	8990 Holdings	9.0	0.2	No	Yes	Property
30	Filinvest Development	8.8	0.2	No	Yes	Holding Firms
Total Top 30 LCY Corporate Issuers		**719.9**	**15.7**			
Total LCY Corporate Bonds		**812.9**	**17.7**			
Top 30 as % of Total LCY Corporate Bonds		**88.6%**	**88.6%**			

LCY = local currency, PHP = Philippine peso, USD = United States dollar.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Bloomberg data.

Table 3: Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (PHP billion)
Ayala Land		
10-year bond	4.85	8.00
Phoenix Petroleum		
0.25-year bond	3.80	1.11
0.5-year bond	4.17	1.12
1-year bond	4.17	1.27
SL Agritech		
0.25-year bond	4.50	0.35
0.5-year bond	4.75	0.08
1-year bond	5.25	0.57

PHP = Philippine peso, Q1= first quarter.
Note: Coupon rates for 0.25-year, 0.5-year, and 1-year bonds of SL Agritech are yields at issue.
Source: Bloomberg LP.

Ratings Update

Fitch Ratings (Fitch) reported in April that it had affirmed the Philippines' long-term foreign currency (FCY) issuer default rating at BBB– and long-term LCY issuer default rating at BBB, and maintained a positive outlook for both ratings. In addition, Fitch affirmed the Philippines' FCY and LCY bond ratings at BBB– and BBB, respectively, the country ceiling at BBB, and the short-term FCY issuer default rating at F3. According to Fitch, its affirmation of the Philippines' sovereign ratings represented the economy's favorable growth performance, a strong external finance position, declining government debt and deficit levels, improving governance standards, ample liquidity in the banking system, and relatively low levels of development and per capita income.

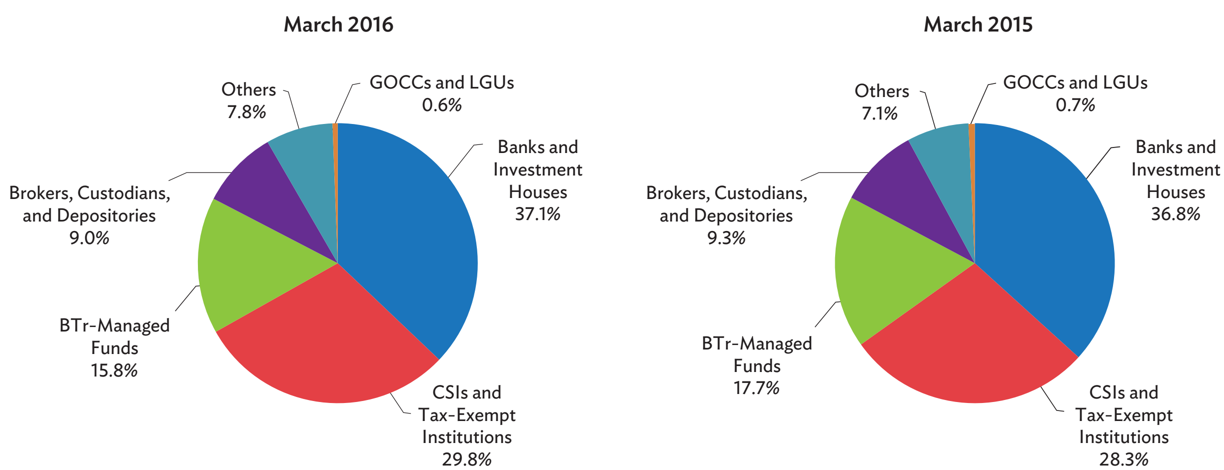
S&P Global Ratings announced in April that it had affirmed its sovereign credit ratings for the Philippines. Its long-term and short-term ratings were maintained at BBB and A–2, respectively, with the outlook kept stable for both. The rating agency stated that the ratings affirmation resulted from its assessment of the economy having a strong external position, which was counterbalanced by the economy's "low-income" status and vulnerabilities in its institutional and governance framework. It also stated that the stable outlook was based on its expectation of continued improvements in the Philippines' key economic fiscal, external, and monetary credit measures.

Policy, Institutional, and Regulatory Developments

The Philippines and Malaysia Sign Bilateral Agreement under the Association of Southeast Asian Nations Banking Integration Framework

In March, the BSP and Bank Negara Malaysia signed a bilateral agreement under the Association of Southeast Asian Nations (ASEAN) Banking Integration Framework that provides guidelines for the entry of Qualified ASEAN Banks into the Philippine and Malaysian markets.

Figure 3: Local Currency Government Bonds Investor Profile



BTr = Bureau of the Treasury, CSIs = contractual savings institutions, GOCCs = government-owned and controlled corporations, LGUs = local government units.
Source: Bureau of the Treasury.

Bangko Sentral ng Pilipinas Adopts Basel III Liquidity Coverage Framework

In March, the BSP's Monetary Board approved the liquidity coverage ratio framework developed under Basel III, which requires Philippine universal and commercial banks, as well as foreign bank branches in the Philippines, to hold a sufficient stock of high-quality liquid assets in order to enhance their liquidity positions.

Bangko Sentral ng Pilipinas Implements Interest Rate Corridor System

In May, the BSP announced that it will formally implement an interest rate corridor system starting 3 June. The BSP stated that this shift in its monetary operations was made to improve the transmission of monetary policy. Through this system, short-term interest rates will be guided toward the overnight reverse repurchase rate, which is the BSP's policy interest rate.

Singapore

Yield Movements

Local currency (LCY) government bond yields in Singapore fell for all tenors between 1 March and 15 May **(Figure 1)**. The yield curve for Singapore Government Securities (SGS) flattened as yields fell more sharply at the longer-end than the short-end. Yields for 2-year maturities declined only 2 basis points (bps) during the review period. On the other end of the curve, yields dropped an average of 36 bps for the 15-year through 30-year maturities. As a result, the spread between the 2-year and 10-year tenors narrowed to 94 bps on 15 May from 120 bps on 1 March.

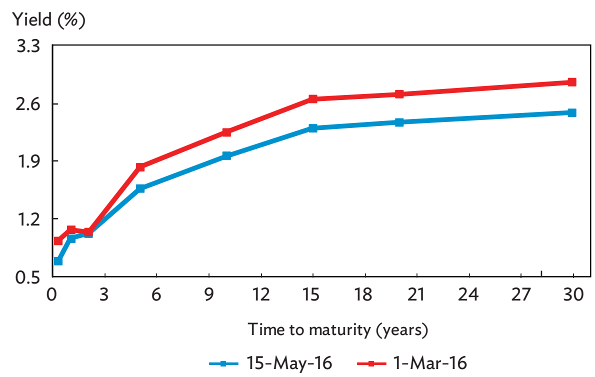
The decline in SGS bond yields largely tracked movements in yields for United States (US) Treasuries. The drop in yields was also reflective of overall weakness in the domestic economy and the persistence of deflation.

In its policy statement on 14 April, the Monetary Authority of Singapore (MAS) set the rate of appreciation of the Singapore dollar nominal effective exchange rate policy band at zero. The monetary authority kept unchanged both the width of the policy band and the level at which it is centered. MAS expects this move to support price stability over the medium-term. Market sentiment viewed the move as an easing of MAS' monetary policy stance.

Real gross domestic product growth in Singapore stood at 1.8% year-on-year (y-o-y) in the first quarter (Q1) of 2016, the same pace of growth as in the fourth quarter of 2015. The manufacturing sector contracted 1.0% y-o-y on account of lower output in the transport engineering and precision engineering clusters. Growth in the services industries eased to 1.4% y-o-y in Q1 2016. On the other hand, the construction sector grew 6.2% y-o-y. On a quarter-on-quarter (q-o-q) and seasonally adjusted annualized basis, Singapore's economy grew 0.2% in Q1 2016. The Ministry of Trade and Industry maintained its 2016 gross domestic product growth forecast between 1.0% and 3.0% y-o-y.

Singapore continued to post deflation in April, as consumer prices dropped 0.5% y-o-y following a 1.0% y-o-y decline in March. Private road transport costs declined 7.1% y-o-y and the cost of electricity and gas slipped 13.9% y-o-y. MAS expects inflation to remain negative for the rest of the year and come in at between –1.0% and 0.0% for full-year 2016.

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



Source: Based on data from Bloomberg LP.

Size and Composition

The size of Singapore's LCY bond market stood at SGD314 billion (USD233 billion) at the end of March **(Table 1)**. Overall growth was weak at a marginal 0.2% q-o-q. On a y-o-y basis, the LCY bond market declined by 2.2% in Q1 2016.

Government Bonds. The outstanding stock of LCY government bonds grew by a marginal 0.3% q-o-q in Q1 2016 to reach SGD184 billion at the end of March. Growth was mainly driven by an increase in the stock of SGS bonds. In Q1 2016, new issuance of SGS bonds totaled SGD4.1 billion, which comprised a reopening of 5-year SGS bonds and new issuances of 30-year SGS bonds. There were no redemptions of SGS bonds during the quarter, resulting in an overall increase in the stock of SGS bonds.

The outstanding stock of MAS bills declined to SGD74 billion at the end of March for a 4.6% q-o-q and 19.8% y-o-y decline in Q1 2016. New issuance of MAS bills was SGD71.5 billion, down 2.5% q-o-q and 21.9% y-o-y.

Table 1: Size and Composition of the Local Currency Bond Market in Singapore

	Outstanding Amount (billion)						Growth Rate (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	SGD	USD	SGD	USD	SGD	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**321**	**234**	**313**	**221**	**314**	**233**	**(0.8)**	**5.3**	**0.2**	**(2.2)**
Government	192	140	183	129	184	136	(1.1)	4.8	0.3	(4.4)
SGS Bills and Bonds	100	73	106	75	110	81	1.9	(8.2)	3.9	9.8
MAS Bills	92	67	78	55	74	55	(4.2)	23.8	(4.6)	(19.8)
Corporate	128	94	130	91	130	96	(0.4)	6.0	0.2	1.1

( ) = negative, MAS = Monetary Authority of Singapore, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, SGD = Singapore dollar, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Government bonds are calculated using data from national sources. Corporate bonds are based on *AsianBondsOnline* estimates.
2. SGS bills and bonds do not include the special issue of Singapore Government Securities held by the Singapore Central Provident Fund.
3. Bloomberg LP end-of-period local currency–USD rates are used.
4. Growth rates are calculated from local currency base and do not include currency effects.
Sources: Bloomberg LP, Monetary Authority of Singapore, and Singapore Government Securities.

Corporate Bonds. Based on *AsianBondsOnline* estimates, the outstanding stock of LCY corporate bonds reached SGD130 billion at the end of March, up 0.2% q-o-q and 1.1% y-o-y.

The 30 largest LCY corporate bond issuers had combined outstanding bonds amounting to SGD67.2 billion at the end of March, accounting for a 51.7% share of the aggregate corporate bond stock **(Table 2)**. The largest corporate bond issuer was the government's Housing and Development Board with outstanding bonds worth SGD20.1 billion. In the second spot was another state-owned agency, the Land Transport Authority, with total bonds outstanding of SGD4.0 billion. In the third spot was United Overseas Bank with total bonds valued at SGD3.9 billion.

While the top two issuers were state-owned agencies, only one other government entity was on the list of the top 30 issuers in Singapore, which comprised a diverse set of issuers from the banking, finance, real estate, transportation, and utilities sectors.

New issuance of LCY corporate debt reached SGD3.2 billion at the end of March, reflecting a decline of 14.8% q-o-q and a gain of 67.1% y-o-y. A total of 14 companies tapped the bond market for funding needs during Q1 2016, issuing a total of 17 new corporate bond series. The largest issuance in Q1 2016 was the Housing and Development Board's 7-year bond worth SGD1,000 million. It was followed by DBS Group Holdings dual-tranche bond sale worth SGD730 million. Notable corporate bond issues in Q1 2016 are presented in **Table 3.**

Policy, Institutional, and Regulatory Developments

Monetary Authority of Singapore and the People's Bank of China Renew Bilateral Currency Swap Agreement

In March, MAS and the People's Bank of China renewed their bilateral currency swap arrangements for an additional 3 years. The arrangement provides up to CNY300 billion of liquidity for eligible financial institutions operating in Singapore.

Monetary Authority of Singapore Allows Corporate Bond Issuers to Tap Retail Market

In May, MAS issued two regulations allowing corporate bond issuers to tap the retail market. Corporate issuers may issue bonds through the Bond Seasoning Framework, which allows firms who met the criteria set by the Singapore Exchange to sell bonds to retail investors. Wholesale bonds issued by these issuers may be re-denominated in smaller lots and offered for sale to retail investors through the secondary market 6 months after the listing of the bonds. Issuers may offer additional bonds targeted for retail investors without a prospectus.

Corporate issuers may also issue bonds through the Exempt Bond Issuer Framework, which allow issuers with higher eligibility criteria under the Bond Seasoning Framework to offer bonds to retail investors without a prospectus.

As an incentive, the Ministry for Finance will grant tax concessions for eligible issuers who issue bonds under these frameworks.

Table 2: Top 30 Issuers of Local Currency Corporate Bonds in Singapore

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (SGD billion)	LCY Bonds (USD billion)			
1.	Housing and Development Board	20.1	14.9	Yes	No	Real Estate
2.	Land Transport Authority	4.0	2.9	Yes	No	Transportation
3.	United Overseas Bank	3.9	2.9	No	Yes	Banking
4.	Temasek Financial I	3.6	2.7	No	No	Finance
5.	DBS Bank	3.3	2.4	No	Yes	Banking
6.	CapitaLand	3.0	2.2	No	Yes	Real Estate
7.	FCL Treasury	2.1	1.6	No	No	Real Estate
8.	SP PowerAssets	1.9	1.4	No	No	Utilities
9.	Olam International	1.7	1.3	No	Yes	Consumer Goods
10.	Keppel	1.7	1.3	No	Yes	Diversified
11.	Public Utilities Board	1.7	1.2	Yes	No	Utilities
12.	DBS Group	1.5	1.1	No	Yes	Banking
13.	Oversea-Chinese Banking	1.5	1.1	No	Yes	Banking
14.	City Developments	1.4	1.1	No	Yes	Real Estate
15.	Neptune Orient Lines	1.3	0.9	No	Yes	Logistics
16.	Hyflux	1.2	0.9	No	Yes	Utilities
17.	CapitaLand Treasury	1.2	0.9	No	No	Finance
18.	Singtel Group Treasury	1.2	0.9	No	No	Finance
19.	Mapletree Treasury Services	1.1	0.8	No	No	Finance
20.	GLL IHT	1.1	0.8	No	No	Finance
21.	CapitaMalls Asia Treasury	1.0	0.7	No	No	Finance
22.	Singapore Airlines	1.0	0.7	No	No	Transportation
23.	Sembcorp Financial Services	1.0	0.7	No	No	Engineering
24.	CMT MTN	0.9	0.7	No	No	Finance
25.	National University of Singapore	0.9	0.7	No	Yes	Education
26.	Ascendas REIT	0.8	0.6	No	Yes	Finance
27.	Overseas Union Enterprise	0.8	0.6	No	Yes	Real Estate
28.	Sembcorp Industries	0.8	0.6	No	Yes	Shipbuilding
29.	Global Logistic Properties	0.8	0.6	No	Yes	Real Estate
30.	SMRT Capital	0.8	0.6	No	No	Transportation
Total Top 30 LCY Corporate Issuers		**67.2**	**49.8**			
Total LCY Corporate Bonds		**129.9**	**96.4**			
Top 30 as % of Total LCY Corporate Bonds		**51.7%**	**51.7%**			

LCY = local currency, SGD = Singapore dollar, USD = United States dollar.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Bloomberg data.

Table 3: Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (SGD million)
Housing and Development Board		
7-year bond	2.50	1,000
DBS Group Holdings		
5-year bond	2.78	480
12-year bond	3.80	250
Ascendas		
5-year bond	2.97	100
7-year bond	3.50	200
10-year bond	3.50	75
Singtel Group Treasury		
7-year bond	2.90	250
Mapletree Treasury Services		
3-year bond	2.92	200

Q1 = first quarter, SGD = Singapore dollar.
Source: Bloomberg LP.

Thailand

Yield Movements

Between 1 March and 15 May, Thai local currency (LCY) government bond yields fell for all tenors **(Figure 1)**. Yields for tenors of between 1 month and 1 year declined 4–6 basis points (bps). Yields for tenors of between 2 years and 7 years fell 3–19 bps. Yields for tenors of between 8 years and 30 years fell 24–66 bps.

The fall in yields was due to excess liquidity in the market driving up demand for local government bonds. Demand from both domestic and foreign investors rose amid expectations of a more gradual policy rate increase by the United States (US) Federal Reserve and the appreciation of the Thai baht.

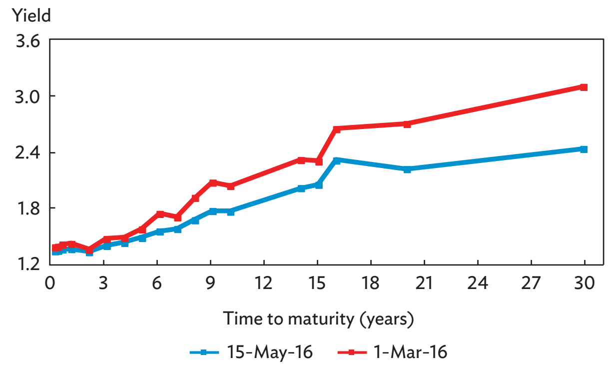
The 2-year versus 10-year spread narrowed from 68 bps to 43 bps during the review period with the yield curve flattening as a result. The flattening reflected market expectations that the Bank of Thailand (BOT) would maintain the overnight policy rate at its record-low level for the rest of the year as the government increasingly relies on fiscal policy to boost the economy.

The BOT decided to maintain the overnight policy rate at 1.50% in its 11 May policy meeting. The central bank stated that while the economy was gradually recovering, downside risks remained, including a continued contraction in merchandise exports and low levels of private investment. The central bank also noted that the appreciation of the Thai baht might have an unfavorable impact on the economy.

Deflation continued in Thailand in January–March before a positive inflation rate of 0.1% year-on-year (y-o-y) was recorded in April. The reversal was primarily due to a larger annual increase in the food and nonalcoholic beverages index, and a slower annual decline in the transportation index as global oil prices recovered. The outlook for inflation could still be affected by oil price volatility and weak domestic demand.

Thailand's economy grew more than expected in the first quarter (Q1) of 2016. Real gross domestic product growth rose to 3.2% y-o-y from 2.8% y-o-y in the fourth (Q4) of 2015. The expansion was mainly due to higher

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



Source: Based on data from Bloomberg LP.

government consumption, which rose 8.0% y-o-y in Q1 2016 following growth of 4.8% y-o-y in the previous quarter, a result of stimulus measures being implemented by the Government of Thailand. Exports also rose 5.1% y-o-y in Q1 2016 following a 3.3% y-o-y contraction in the previous quarter. Meanwhile, growth in private consumption and gross fixed capital formation slowed in Q1 2016.

Size and Composition

The LCY bond market in Thailand expanded 1.9% quarter-on-quarter (q-o-q) to THB10,205 billion (USD291 billion) at the end of March **(Table 1)**. On a y-o-y basis, the LCY bond market rose 9.6%. Government bonds outstanding amounted to THB7,607 billion, while corporate bonds summed to THB2,598 billion.

Government Bonds. LCY government bonds outstanding increased 1.5% q-o-q to THB7,607 billion at the end of March as both central government bonds and central bank bonds posted q-o-q increases. Meanwhile, outstanding state-owned enterprise and other bonds declined 1.1% q-o-q.

In terms of issuance, Q1 2016 saw a higher volume of THB2,103 billion, compared with THB1,791 billion in Q4 2015, primarily due to the jump in the issuance of central bank bonds. Central bank bond issuance

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	THB	USD	THB	USD	THB	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**9,314**	**286**	**10,012**	**278**	**10,205**	**291**	**0.6**	**1.7**	**1.9**	**9.6**
Government	7,079	218	7,494	208	7,607	217	1.9	0.7	1.5	7.5
Government Bonds and Treasury Bills	3,578	110	3,888	108	3,964	113	4.8	3.4	1.9	10.8
Central Bank Bonds	2,682	82	2,823	78	2,869	82	(2.2)	(4.9)	1.6	7.0
State-Owned Enterprise and Other Bonds	819	25	782	22	774	22	3.2	9.2	(1.1)	(5.5)
Corporate	2,235	69	2,517	70	2,598	74	(3.2)	5.1	3.2	16.3

( ) = negative, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, THB = Thai baht, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg end-of-period LCY–USD rates are used.
3. Growth rates are calculated from an LCY base and do not include currency effects.
Sources: Bank of Thailand and Bloomberg LP.

climbed almost 50% to THB1,903 billion in Q1 2016 from THB1,278 billion in Q4 2015, suggesting that the BOT may be intervening in response to the appreciation of the Thai baht brought about by increased foreign fund inflows. A weaker Thai baht is favored by the Government of Thailand to support exports and boost the economy. Meanwhile, the issuance of central government bonds fell in Q1 2016.

Corporate Bonds. Total outstanding LCY corporate bonds rose 3.2% q-o-q to THB2,598 billion at the end of March.

Table 2 provides a breakdown of the top 30 LCY corporate bond issuers in Thailand, whose total LCY bonds outstanding stood at THB1,465 billion. The top 30 issuers accounted for 56.4% of total LCY corporate bonds outstanding at the end of March. CP All remained the largest corporate issuer in Thailand with THB180 billion of outstanding bonds. PTT was the next largest borrower at THB169.5 billion and Siam Cement was in the third spot with THB166.5 billion.

Corporate bonds issuance amounted to THB370 billion in Q1 2016, which was nearly on par with the previous quarter. **Table 3** lists notable corporate bond issuances in Q1 2016.

The largest corporate issuers in Q1 2016 came from various industries. CPF Thai, with major business interests in animal feeds, issued a multi-tranche THB16 billion bond with maturities ranging between 5 years and 12 years. Bank of Ayudhya issued a THB12 billion 3-year bond with a coupon rate of 1.86%.

Investor Profile

Contractual savings funds remained the largest holder of LCY government bonds in Thailand with a share of 28.4% at the end of March, up slightly from a share of 26.8% in Q1 2015 **(Figure 2)**. Insurance companies accounted for the second largest share at 25.5%, which was barely changed from 25.4% in Q1 2015. The share of foreign investors fell to 13.6% at the end of March from 17.3% a year earlier.

Net foreign flows into Thailand's LCY bond market were positive in the first 4 months of 2016, particularly in Q1 2016, as foreign investors regained interest in the region after the US Federal Reserve delayed further increases in its policy rate **(Figure 3)**. Aggregate fund inflows in Q1 2016 amounted to THB161 billion. Net foreign inflows in April stood at THB4 billion.

Policy, Institutional, and Regulatory Developments

Securities and Exchange Commission and the Association of Investment Management Companies to Prepare Institutional Investor Code

In March, the Securities and Exchange Commission, Thailand (SEC) and the Association of Investment

Table 2: Top 30 Issuers of Local Currency Corporate Bonds in Thailand

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (THB billion)	LCY Bonds (USD billion)			
1.	CP All	180.0	5.1	No	Yes	Commerce
2.	PTT	169.5	4.8	Yes	Yes	Energy and Utilities
3.	Siam Cement	166.5	4.7	Yes	Yes	Construction Materials
4.	Charoen Pokphand Foods	70.9	2.0	No	Yes	Food and Beverage
5.	Bank of Ayudhya	62.8	1.8	No	Yes	Banking
6.	Thai Airways International	56.3	1.6	Yes	Yes	Transportation and Logistics
7.	True Corporation	45.5	1.3	No	Yes	Communications
8.	Indorama Ventures	45.3	1.3	No	Yes	Petrochemicals and Chemicals
9.	Kasikorn Bank	42.5	1.2	No	Yes	Banking
10.	Tisco Bank	41.4	1.2	No	No	Banking
11.	The Siam Commercial Bank	40.0	1.1	No	Yes	Banking
12.	Banpu	39.4	1.1	No	Yes	Energy and Utilities
13.	Mitr Phol Sugar	38.4	1.1	No	No	Food and Beverage
14.	Toyota Leasing Thailand	37.3	1.1	No	No	Finance and Securities
15.	True Move H Universal Communication	34.0	1.0	No	No	Communications
16.	Thanachart Bank	32.5	0.9	No	No	Banking
17.	PTT Exploration and Production Company	32.1	0.9	Yes	Yes	Energy and Utilities
18.	Krung Thai Bank	31.2	0.9	Yes	Yes	Banking
19.	TPI Polene	29.6	0.8	No	Yes	Property and Construction
20.	Land & Houses	29.0	0.8	No	Yes	Property and Construction
21.	Thai Oil	28.0	0.8	Yes	Yes	Energy and Utilities
22.	Minor International	25.8	0.7	No	Yes	Food and Beverage
23.	TMB Bank	25.4	0.7	No	Yes	Banking
24.	CH. Karnchang	25.0	0.7	No	Yes	Property and Construction
25.	Kiatnakin Bank	24.3	0.7	No	Yes	Banking
26.	Quality Houses	24.1	0.7	No	Yes	Property and Construction
27.	IRPC	23.0	0.7	Yes	Yes	Energy and Utilities
28.	ICBC Thai Leasing	22.1	0.6	No	No	Finance and Securities
29.	Krung Thai Bank	21.7	0.6	Yes	Yes	Banking
30.	Glow Energy	21.6	0.6	No	Yes	Energy and Utilities
Total Top 30 LCY Corporate Issuers		**1,465.2**	**41.7**			
Total LCY Corporate Bonds		**2,598.5**	**74.0**			
Top 30 as % of Total LCY Corporate Bonds		**56.4%**	**56.4%**			

LCY = local currency, THB = Thai baht, USD = United States dollar.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Bloomberg data.

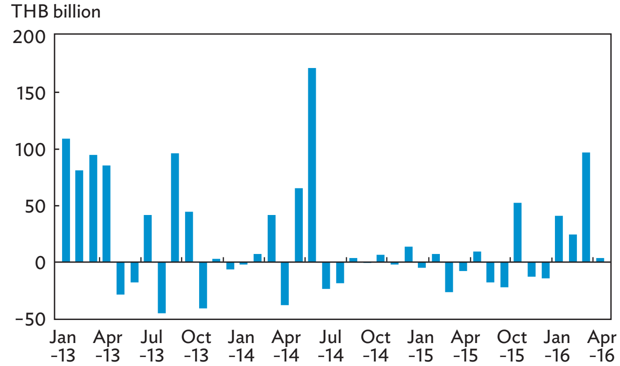
Management Companies (AIMC) announced the preparation of the Thailand Institutional Investor Code. Through the code, the SEC and AIMC aim to promote responsible investment among institutional investors through the establishment of policies based on corporate governance principles. The code will also provide guidelines for institutional investors in monitoring the operations of the companies they have invested in to protect the interest of their clients and the investment management industry as a whole.

Table 3: Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (THB million)
CPF Thai		
5-year bond	3.10	7,450
7-year bond	3.47	2,150
10-year bond	3.87	3,350
12-year bond	4.15	3,050
Bank of Ayudhya		
3-year bond	1.86	12,000
UOB Thai		
3-year bond	1.85	5,000
5-year bond	2.16	5,000
Toyota Leasing Thailand		
3-year bond	1.93	3,500
4-year bond	2.14	4,500
CP All		
5-year bond	2.95	1,382
7-year bond	3.40	937
10-year bond	4.00	2,074
12-year bond	4.15	2,607

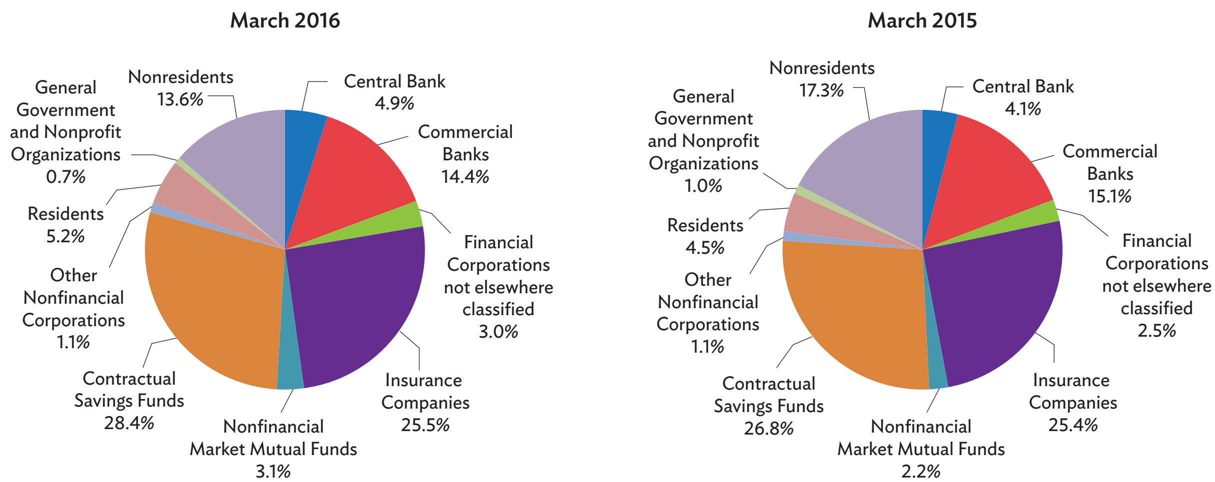
Q1 = first quarter, THB = Thai baht.
Source: Bloomberg LP.

Figure 3: Foreign Investor Net Trading of Local Currency Bonds in Thailand



THB = Thai baht.
Source: ThaiBMA.

Figure 2: Local Currency Government Bonds Investor Profile



Note: Government bonds exclude central bank bonds and state-owned enterprise bonds.
Sources: *AsianBondsOnline* and Bank of Thailand.

Viet Nam

Yield Movements

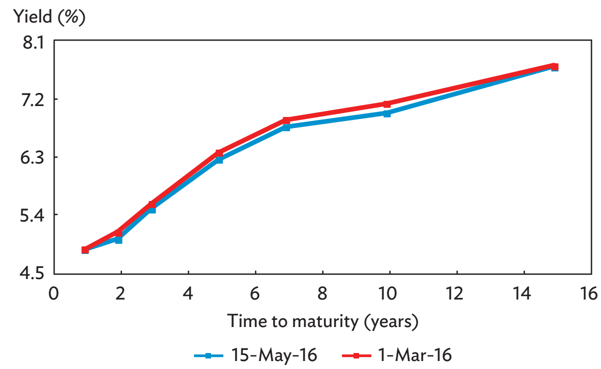
Between 1 March and 15 May, local currency (LCY) government bond yields in Viet Nam fell for all tenors **(Figure 1)**. Yields slipped 1 basis point (bp) and 2 bps for the 1-year and 15-year maturities, respectively. From the 2-year through the 10-year maturities, yields declined by an average of 11 bps. As a result, the spread between the 2-year and 10-year tenors narrowed to 196 bps on 15 May from 199 bps on 1 March.

The drop in yields can be attributed to improved demand for government bonds. Most auctions for 3-year and 5-year bonds were well received by investors during the first quarter.

Macroeconomic conditions have also helped keep yields at bay, while a more stable Vietnamese dong has eased concerns over depreciation. Consumer price inflation averaged 1.4% between January and April. Inflation in Viet Nam is still low relative to some of its emerging East Asian peers, although it has started to rise due to food supply disruptions and the recovery in global oil prices.

Gross domestic product growth eased to 5.5% year-on-year (y-o-y) in the first quarter (Q1) of 2016 from 6.0% y-o-y in Q1 2015. Only the service sector recorded a higher annual increase in Q1 2016 compared with Q1 2015. Industry and construction growth slowed to 6.7% y-o-y in Q1 2016. The agriculture, forestry, and fishery sector contracted 1.2% y-o-y.

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



Source: Based on data from Bloomberg LP.

Size and Composition

At the end of March, the size of the LCY bond market in Viet Nam reached VND870.9 trillion (USD39 billion) on declines of 6.6% quarter-on-quarter (q-o-q) and 10.3% y-o-y **(Table 1)**. There were increases in the stock of Treasury bonds and corporate bonds while central bank bonds and state-owned enterprise bonds fell during the review period. Viet Nam's LCY bond market remains dominated by government bonds, which represent a

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q1 2015		Q4 2015		Q1 2016		Q1 2015		Q1 2016	
	VND	USD	VND	USD	VND	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**970,873**	**45**	**932,391**	**41**	**870,926**	**39**	**8.9**	**10.9**	**(6.6)**	**(10.3)**
Government	954,850	44	902,749	40	838,284	38	9.0	10.8	(7.1)	(12.2)
Treasury Bonds	582,949	27	597,740	27	627,691	28	11.0	23.1	5.0	7.7
Central Bank Bonds	158,357	7	98,191	4	4,905	0.2	17.8	(8.9)	(95.0)	(96.9)
State-Owned Enterprise Bonds	213,544	10	206,818	9	205,688	9	(1.3)	(0.6)	(0.5)	(3.7)
Corporate	16,023	0.7	29,642	1	32,642	1	3.2	18.5	10.1	103.7

( ) = negative, q-o-q = quarter-on-quarter, Q1 = first quarter, Q4 = fourth quarter, USD = United States dollar, VND = Vietnamese dong, y-o-y = year-on-year.
Notes:
1. Bloomberg LP end-of-period local currency–USD rates are used.
2. Growth rates are calculated from local currency base and do not include currency effects.
Source: Bloomberg LP.

96.3% share of the aggregate bond stock. The corporate bond market comprises only a 3.7% share.

Government Bonds. The outstanding stock of government bonds totaled VND838.3 trillion at the end of March on declines of 7.1% q-o-q and 12.2% y-o-y. Treasury bonds climbed 5.0% q-o-q in Q1 2016. On the other hand, central bank bonds and state-owned enterprise bonds both declined on a q-o-q and y-o-y basis.

Treasury and state-owned enterprise bond issuance stood at VND102.4 trillion in Q1 2016, lower on both a q-o-q and y-o-y basis. In contrast, State Bank of Viet Nam bill issuance climbed 22.9% q-o-q and 20.4% y-o-y.

Corporate Bonds. The outstanding amount of corporate bonds rose to VND32.6 trillion at the end of March, up 10.1% q-o-q and 103.7% y-o-y. A total of 15 corporate entities comprised Viet Nam's entire corporate bond market at the end of March **(Table 2)**. Masan Consumer Holdings was the largest corporate bond issuer with bonds valued at VND11.1 trillion, followed by real estate firm Vingroup with bonds outstanding amounting to VND5.0 trillion. Hoang Anh Gia Lai was in the third spot with bonds valued at VND4.0 trillion.

In Q1 2016, the lone issuance in the corporate bond market was Vingroup's dual-tranche bond offering worth VND3.0 trillion in February **(Table 3)**. The bond issuance was backed by the Credit Guarantee and Investment Facility.

Table 3: Notable Local Currency Corporate Bond Issuance in Q1 2016

Corporate Issuers	Coupon Rate (%)	Issued Amount (VND billion)
Vingroup		
5-year bond	7.75	1,950
10-year bond	8.50	1,050

Q1 = first quarter, VND = Vietnamese dong.
Source: Bloomberg LP.

Ratings Update

In March, RAM Ratings Services Berhad (RAM) affirmed Viet Nam's global sovereign rating at gBB3(pi) with a stable outlook. RAM took note of the risks stemming from Viet Nam's fiscal deficits and rising government debt levels, inadequate foreign currency reserves, the dominant role of state-owned enterprises, and risks from its banking sector. However, RAM said that such risks

Table 2: Corporate Issuers of Local Currency Corporate Bonds in Viet Nam

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (VND billion)	LCY Bonds (USD billion)			
1.	Masan Consumer Holdings	11,100	0.50	No	No	Diversified Operations
2.	Vingroup JSC	5,000	0.22	No	Yes	Real Estate
3.	Hoang Anh Gia Lai	4,000	0.18	No	Yes	Real Estate
4.	Asia Commercial Joint Stock	3,000	0.13	No	Yes	Finance
5.	Techcom Bank	3,000	0.13	No	No	Banking
6.	Ho Chi Minh City Infrastructure	2,102	0.09	No	Yes	Infrastructure
7.	DIC	1,000	0.04	Yes	No	Chemicals
8.	Ocean Group	980	0.04	No	Yes	Consulting Services
9.	Saigon–Hanoi Securities	650	0.03	No	Yes	Finance
10.	Tasco	500	0.02	No	Yes	Engineering and Construction
11.	Sotrans	400	0.02	No	No	Logistics
12.	Hung Vuong	300	0.01	No	Yes	Food
13.	Saigon Securities	300	0.01	No	Yes	Finance
14.	Ha Do	200	0.01	No	Yes	Construction
15.	Ho Chi Minh City Securities	110	0.005	No	No	Finance
Total LCY Corporate Issuers		**32,642**	**1.46**			

LCY = local currency, USD = United States dollar, VND = Vietnamese dong.
Notes:
1. Data as of end-March 2016.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Bloomberg data.

were partly abated by Viet Nam's solid economic growth, strong foreign direct investment, and improving business environment.

In May, Viet Nam's Ministry of Finance announced that S&P Global Ratings affirmed Viet Nam's BB– long-term sovereign debt rating and B short-term sovereign debt rating. Both ratings were given a stable outlook. Factors that S&P Global Ratings cited for the ratings affirmation include Viet Nam's relatively diverse and flexible economy, and stable macroeconomic conditions.

Policy, Institutional, and Regulatory Developments

Ha Noi Stock Exchange and Viet Nam Securities Depository to Test Run Derivatives Market

In March, Ha Noi Stock Exchange (HNX) and the Viet Nam Securities Depository (VSD) announced that members may participate in the test run of a derivatives market in September and October before the official launch by the end of the year. According to HNX, two products would initially be offered: future contracts for share indexes and government bonds with a 5-year maturity. The trading of derivatives contracts will be conducted through HNX and clearing will take place through VSD.

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

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to the majority of the world's poor. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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